STANDARDS
NEW ZEALAND
PAEREWA AOTEAROA

# SAA/SNZ HB 76:2010

Standards Australia/Standards New Zealand Handbook

# Dangerous Goods – Initial Emergency Response Guide

Superseding SNZ HB 76:2008 and SAA HB 76:2004

SAA/SNZ HB 76:2010


STANDARDS
Australia

# GUIDE SELECTION FROM DANGEROUS GOODS CLASS LABELS AND PLACARDS


GUIDE 01


GUIDE 02

** Insert Divisions 1.1, 1.2 or 1.3

* Insert Compatibility Group


GUIDE 03

* Insert Compatibility Group


GUIDE 02


GUIDE 02



GUIDE 04



GUIDE 06


GUIDE 10

For use in Australia only


GUIDE 07



GUIDE 18


GUIDES 20 AND 22


GUIDE 25



GUIDE 27


GUIDE 31



GUIDE 33


GUIDE 36


GUIDE 41


GUIDE 42


GUIDE 43


GUIDE 42


GUIDE 42


GUIDE 42


GUIDE 36


GUIDE 47

GUIDES 15 OR 42

GUIDE 47

NOTES –

1 For how to select Guides, see How to use this book on Page 7.

2 Use the Class labels to select the appropriate Emergency Response Guide only if specific product information is not known.

3 Labels and placards on imported materials may vary. The key factors are the label colours, the symbols at the top of the labels and the number on the bottom corner.

## GUIDE SELECTION FROM HSNO/UN GHS PICTOGRAMS

These pictograms are derived from the UN Globally Harmonised System (GHS) of classification and labelling of chemicals. They may be found on packaging of dangerous goods and on products which whilst hazardous may not be classified as dangerous goods under the UNRTDG.

FLAMMABLE GAS
GUIDE 04

FLAMMABLE LIQUID
GUIDE 18

FLAMMABLE SOLID
GUIDES 20 AND 22

OXIDIZING SUBSTANCES
GUIDE 31

TOXIC
GUIDE 36

TOXIC
GUIDE 36

CORROSIVE
GUIDE 36

ECOTOXIC
GUIDE 47

# NOTES

Australian/New Zealand Handbook

# Dangerous Goods — Initial Emergency Response Guide

Originated as SAA/SNZ HB 76:1997
Second New Zealand edition SNZ HB 76:2003
Second Australian edition SAA HB 76:2004
Third New Zealand edition SNZ HB 76:2008
Second joint Australian/New Zealand edition
SAA/SNZ HB 76: 2010



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**COMMITTEE REPRESENTATION**

This handbook was prepared by joint Technical Committee CH-009-01.

The committee consisted of representatives of the following organizations:

Australian Paint Manufacturers' Association

Department of Consumer and Employment Protection WA

Engineers Australia

HazKnow Ltd

New Zealand Chemical Industry Council Inc.

New Zealand Fire Service

New Zealand Transport Agency

Noel Arnold and Associates

**OUTCOME STATEMENT**

Compliance with the procedures contained in this handbook will expedite emergency response in the event of an accident involving dangerous goods and reduce the effect on persons and the environment.

**KEEPING STANDARDS UP TO DATE**

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Webshop at www.standards.com.au or Standards New Zealand's website at www.standards.co.nz.

Alternatively, Standards Australia publishes an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organisation.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown below.



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# CONTENTS

# FOREWORD

This Dangerous Goods – Initial Emergency Response Guide has been developed by Standards Australia and Standards New Zealand. This joint edition is a revision of SAA HB 76:2004 and SNZ HB 76:2008 that were substantially based on the 2004 edition of the Emergency Response Guide (ERG) produced by Transport Canada, U.S.A. Department of Transportation (DOT) and the Secretariat of Transport and Communications of Mexico (SCT). The generous provision by these organisations of their original text on their database available freely on the Internet, and their authorisation to use this material in this joint Australian/New Zealand version is gratefully acknowledged. While the basic structure has been maintained, the original ERG text has, however, been modified in a number of ways to:

(a) Remove references and terminology which are peculiar to Canada, North and South America;

(b) Suit Australian and New Zealand conditions;

(c) Incorporate Guides for vehicle fires and for aerosols; and

(d) Identify those United Nations (UN) numbers that have become obsolete.

The changes appearing in this revised edition have largely resulted from the newly assigned dangerous goods and UN numbers that appear in the 16th edition of the UN Recommendations on the Transport of Dangerous Goods, and from alterations to the text to reflect the joint status of the handbook.

There have also been some changes of guide numbers for some dangerous goods to more closely reflect the appropriate actions to be taken in an emergency. A new Guide 52 has been added covering desensitised explosives and a number of guides have had additional requirements added.

The purpose of this handbook is to provide immediate general information and advice to persons handling dangerous goods emergencies. While written principally for trained emergency responders, it also contains advice, which anyone first on the scene of an incident should be able to follow.

This handbook is not a substitute for emergency response training, experience and sound judgement, but if used properly, it will expedite emergency response and help prevent an accident from becoming a catastrophe. It should be remembered that each numbered guide in this handbook can represent many individual chemicals or formulated products which share the same basic hazards as indicated at the top of the page. These products may, nonetheless, vary considerably in physical and chemical properties, and in degree of danger. Hence judgement, based on knowledge and experience, must play a key role in the emergency response process. For dealing with larger incidents, and cases where persons have been exposed to dangerous goods, it is strongly recommended that the information in this Guide be supplemented by more detailed information such as found in the relevant Safety Data Sheet, which should be obtained from the manufacturer or agent.

It should also be noted that, for the sake of brevity, the chemical entries, which appear in the lists, are not always identical to the New Zealand Standard, NZS 5433:2007, or the ADG Code; for example, concentration values may not appear in entries in the lists. Also the class, division or subsidiary risk (sub-risk) prescribed in NZS 5433:2007 and the ADG Code may not reflect all of the hazards which should be considered in an emergency.

# 1. HOW TO USE THIS HANDBOOK

RESIST RUSHING IN!

APPROACH INCIDENT FROM UPWIND.

STAY CLEAR OR ALL SPILLS, VAPOURS, FUMES, SMOKE AND SUSPICIOUS SOURCES

Obtain the United Nations (UN) NUMBER, PROPER SHIPPING NAME or TECHNICAL NAME from any available documents.

Look up the UN NUMBER in the GREEN section, or the PROPER SHIPPING NAME or TECHNICAL NAME in the ORANGE section.

NOTE – These pages include commonly used technical names of chemicals as well as the list of UN proper shipping names.

Read across to the GUIDE NUMBER.

Turn to the GUIDE NUMBER in the YELLOW section.

Read the advice on Hazards, Protective Clothing and Public Safety.

Carry out the recommended Emergency Response actions.

D Indicates a substance may decompose explosively. The guide number is identified in the list of UN numbers, and the list of proper shipping names and technical names with the letter D.

P Indicates a substance that may polymerise violently under certain conditions. The guide number is identified in the list of UN numbers, and the list of proper shipping names and technical names with the letter P.

* Indicates a UN Number that has become obsolete. Obsolete UN numbers are not listed in the alphabetical list of proper shipping names and technical names; however, the numerical list of UN numbers contains both current and obsolete UN numbers.

### Identify product and locate appropriate guide(s)

To determine which guide is applicable, either:

(a) Consult the numerical index UN number (green section)
for example **UN 1017** **Guide 12**; or

(b) Consult the alphabetical index proper shipping name or technical name (orange section)
for example **CHLORINE** **Guide 12**.

**If neither is available, identify the substance class, if possible. Consult front inner cover for reference to the appropriate guide set out in the yellow section**

for example **Class 3** **Guide 18**.

NOTE – It is generally more reliable to use the UN number and consult the list of UN numbers (green section) as the product name may be a trade name.

**A. If transport or storage documents are available**

Dangerous goods transport documents containing the UN number, proper shipping name and other relevant information should be retrieved from:

(a) The cab of a road vehicle or leading railway locomotive;

(b) The possession of the master of a vessel or designated crew member;

(c) The possession of the aircraft pilot;

(d) The warehouse, terminal, rail yard, harbour master's or air cargo offices; or

(e) A manifest holder near the site entrance.

Below is an example of a dangerous goods entry on a dangerous goods transport document.

The description of dangerous goods on transport documents should state the UN number, proper shipping name, class (including any subsidiary hazards) and packing group (if applicable), in that order.

Liquid Chemical Company
123 Through Street
UPTOWN

Delivery to:
Sparkling Pools
1 Main Road
DOWNTOWN

DANGEROUS GOODS DETAILS

| | | | | |
|---|---|---|---|---|
| UN 1230 | METHANOL | Class 3, 6.1, PG II | 480 L | 12 x 40 L Jerricans |
| UN 1824 | SODIUM HYDROXIDE SOLUTION | Class 8, PG II | 1200 L | 6 x 200 L Drums |

**B. If transport or storage documents are not available**

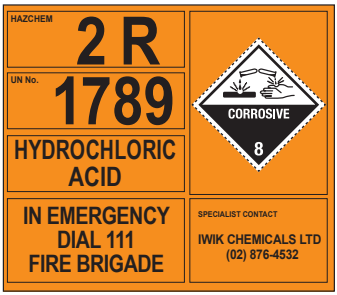
Obtain UN number or proper shipping name or technical name from alternative sources as follows:

(a) If the load contains only one type of dangerous good, the 4-digit UN number may be included in the class label, or shown adjacent to it, for example

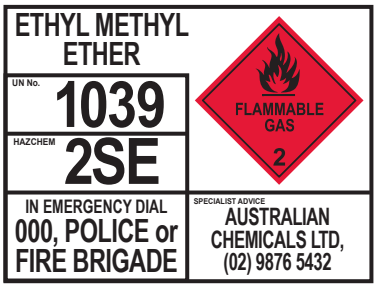

UN 1789

(b) If the goods are in bulk containers, the UN number and proper shipping name should appear on the emergency information panel attached to the vehicle or container, for example

In New Zealand




In Australia




(c) All dangerous goods package labels should include the UN number and proper shipping name near the class label, for example


UN 1789
Hydrochloric acid

**C. If neither UN number nor proper shipping name is available**

The class labels or placards on the vehicle, container or storage facility can be matched with the corresponding label or labels shown inside the front cover of this handbook. The appropriate guide should then be consulted. The recommendations presented may be more general than those provided in the specified guide for the material if known, but should nonetheless suggest satisfactory emergency response advice, if anything erring on the side of safety.

For example


**Guide 07**


**Guide 36**


**Guide 36**


**Guide 47**

- Where there is only one class label, use the guide shown under that label inside the front cover.
- If there is more than one class label and other information is available to help determine which is the primary hazard and which is the subsidiary hazard, select the guide from table 1.
- If two hazard labels are present and you are unable to determine which is the primary risk, then go to both guides from the inside cover and take a careful approach on the information for both classes.

**Table 1 – Guide selection according to class and subsidiary risk**

| Class | Subsidiary risk | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **1** | **2.1** | **3** | **4.1** | **4.2** | **4.3** | **5.1** | **6.1** | **8** |
| 1 | – | – | – | – | – | – | – | 02, 37 | 02, 36 |
| 1.4 | – | – | – | – | – | – | – | 03, 37 | 03, 36 |
| 2.2 | – | – | – | – | – | – | 10 | – | – |
| 2.3 | – | 05 | – | – | – | – | 12 | – | 07 |
| 3 | – | – | – | – | – | – | – | 16 | 18 |
| 4.1 | 20, 02 | – | – | – | – | – | 29 | 20 | 36 |
| 4.2 | – | – | – | – | – | 25 | 23 | 23 | 23 |
| 4.3 | – | – | 26 | 26 | 26 | – | 26 | 26 | 26 |
| 5.1 | – | – | – | 31 | 31 | 28 | – | 31 | 31 |
| 5.2 | 33 | – | – | – | – | – | – | – | 33 |
| 6.1 | – | – | 17 | 20 | 23 | 26 | 30 | – | 36 |
| 7 | 42, 02 | 45, 05 | 42, 18 | 42 | 45 | 46 | 44 | 42 | 42 |
| 8 | – | – | 18 | 36 | 23 | 26 | 30 | 36 | – |

NOTES –
(1) Missing guide numbers indicate impossible class/subsidiary risk combinations.
(2) Missing class numbers indicate classes that do not have any subsidiary risks and missing subsidiary risk numbers indicate classes that cannot be a subsidiary risk.
(3) Where two guide numbers are shown, separated by a comma, refer to both guides.

### D. If product cannot be identified by UN number, name or label

See guides in yellow section:

(a) For bulk gas loads — see Guides 05 and 12

(b) For bulk liquid loads — see Guide 18

(c) For dry bulk loads — see Guide 20

(d) For unidentified packages — see Guide 01

(e) If vehicle is on fire, but load is not — see Guide 00

NOTE – In most cases the product may also be identified by asking the responsible carrier or agency.

For RAIL transport – contact the rail transport operator.
*Advise rail wagon or container number, or train location, direction facing, and number of wagons from locomotive.*

For ROAD transport – obtain contact number from driver or side of vehicle.
*Advise carrier, location, and truck/driver or container number.*

For AIR transport – contact the airline.
*Advise flight number, aircraft type, and location.*

For SEA transport – try freight forwarder, port authority, agent, shipping company, importer or exporter.

For STORAGE – from the site operator or the emergency manifest.

## Consult the appropriate guide

The title at the top of each guide identifies the most likely hazards of the dangerous goods covered by that guide.

NOTE – The titles do not necessarily align with the product classification of the UN, IMDG, IATA, ICAO or other relevant Code, Regulation, NZS 5433, New Zealand Dangerous Goods Rule or ADG Code.

Each guide is subdivided into four main sections, covering hazards, protective clothing, public safety, and emergency response. Carefully read each section so that you can determine:

(a) The dangers that may be present;

(b) How to protect yourself from exposure;

(c) How to ensure the safety of the general public; and

(d) The best way to control the emergency.

The wording has been kept as simple as possible to reduce delays in response. To assist in interpretation and application, a further explanation of each section is given in Section 2.

As only 52 guides have been used to cover emergencies for many thousands of different products, the recommendations are unavoidably more general in nature than if a specific guide were available for each product. However, the information should provide guidance for dealing with smaller incidents and for initial response to larger incidents.

Where more than one type of dangerous goods may be involved in the incident, consult more than one guide (in the yellow section) or obtain detailed product information.

## Obtain detailed product-specific information

More product-specific information and detailed advice for dealing with continuing emergencies should be sought as a matter of urgency. This information is usually contained in Safety Data Sheets provided by the product manufacturer or agent. Additional information may be obtained from a number of sources, including chemical databases, as follows:

(a) For bulk loads, specialist advice and emergency response assistance is required. It is available by phoning the number shown on the emergency information panel, (see pages 8 and 9), which is displayed on each side of the container, tank, or vehicle and on the rear of the road vehicle;

(b) For all loads, the emergency contact number for the consignor or prime contractor should be clearly printed on the dangerous goods transport documents;

(c) For most transport, the contact numbers for the road transport company are prominently displayed on the vehicle;

(d) At storage installations, detailed information, including Safety Data Sheets, should be available from the site operator or the site emergency manifest;

(e) A list of useful contacts for dealing with dangerous goods emergencies is given at the back of this handbook.

# 2. UNDERSTANDING GUIDE ENTRIES

Each guide is divided into four main sections. The following may assist in interpreting the information in each section:

**Hazards** – describes the dangers that the product possesses, including the potential for fire, explosion and adverse health effects. Consult this section first to determine what dangers may be present, to ensure the protection of responders and the surrounding population.

**Protective clothing** – advises the minimum protection (prudent for emergency services personnel when these products are on fire), for dealing with a significant leak or for handling containers suspected of leaking, particularly in low lying or confined areas. Except where otherwise indicated (for example cryogenic liquids), this level of protection is not normally required for handling obviously undamaged packages.

The PPE most appropriate to each incident is largely dependent on incident type. In many cases if there is a fire, heat exposure will become the primary hazard and therefore firefighter's structural uniform will be the first choice.

Where there is a spill or leak then splash or gas suits would be most appropriate with structural uniform as a less effective option in some cases.

**Public safety** – recommends initial measures to ensure public safety. The actual measures to be taken should be determined by the agency in charge of the incident, based on the actual situation at hand. Immediate spill or leak isolation distances are proposed. Greater evacuation distances are proposed for large spills and for large containers on fire. These are based on the premise that the load consists of high hazard (that is PG I) goods with the properties indicated.

***Evacuation should not be automatic, but should be determined by the emergency service after taking into account all relevant risk factors. Under some circumstances it is more prudent to protect people indoors rather than expose them further to the hazard by evacuating.***

**Emergency response** – outlines the actions to be taken in emergency situations involving fire, spill or leak and first aid to be administered when persons are exposed to the product.

*Firefighting*

There are a number of different types of extinguisher commercially available for fighting chemical fires. There are four main types of extinguisher: water, foam, dry powder, and carbon dioxide. Dry powder is the most efficient. Carbon dioxide is safest but only works in small spaces. Foam is best on spill fires. Alcohol foam is recommended for water-miscible and polar flammable liquids, which break down other foams. Water is effective on non-chemical combustibles such as wood, paper, and upholstery. Where the specified extinguisher is not available, the use of another may require a greater quantity to put the fire out. If foam is used, be aware that the foam blanket may break down quickly with the threat of re-ignition. The final judgement on the use of any extinguishant rests with the firefighters at the scene.

*Spill or leak*

The measures outlined should assist with containment and prevention of ignition where a fire hazard exists. Because of environmental concerns, always obtain advice from the product manufacturer and the environmental authority before disposing of any cleaned-up materials.

*First aid*

Brief instructions are included in each guide. General first aid information is given after the guides, in Sections 13 and 14.

## 3. MIXED LOADS

When using this handbook at incidents involving a mixed load of dangerous goods, it is important to take all hazards into account when determining the emergency response. This usually means that it is necessary to consult the guides assigned to every item of dangerous goods and apply the most severe instruction, to ensure that the most hazardous possibility is covered.

## 4. SIX STEPS TO EMERGENCY RESPONSE

The following are recommended steps to deal with a dangerous goods emergency:

***Step 1. Raise the alarm***

Move upwind and get help. If you are alone, raise the alarm before you take any action. Help will arrive sooner and you will not be on your own, should you get into difficulties.

***Step 2. Secure the area***

Establish a hazard zone that will keep onlookers, passers-by, and vehicles well out of danger. Determine the best access for emergency services. It may be necessary to patrol the zone to keep others at a safe distance, both for their own safety and to allow emergency personnel to operate without obstruction.

***Step 3. Approach with care***

Stop and think. Do not rush blindly ahead as this could add your name to the list of casualties. Approach from upwind to keep from coming into contact with vapours. You should also approach from up hill if possible. Keep in mind that many vapours and gases are odourless, colourless and heavier than air and hence may accumulate in low-lying areas, particularly when there is no wind. Do not rely on smell to keep you safe. Avoid puddles, as they may be spilt chemicals.

***Step 4. Identify products***

Examine the placards and class labels on vehicles, freight containers, packages, and storage facilities to determine the types of hazards posed by the load so that precautions can be taken. Then, examine the available documents to identify the actual products. Always assume that the most hazardous materials in the load or store are involved in the incident until proven otherwise and take precautions to ensure the safety of all involved.

***Step 5. Assess the situation***

- Consider each of the following.
- Is there a fire? Is it safe to use an extinguisher?
- Is there a spill or leak? How large is it?
- Is containment necessary?

- What are the weather conditions – wind direction, rain?
- What is the terrain like?
- What is at risk – people, property or the environment?
- How significant is the risk – based on the situation, the hazards of the products (from classes and subsidiary risks) and their degree of danger (based on packing groups)?
- Is public protection necessary? Protect in place or evacuate?
- What resources (human and equipment) are required and readily available?
- What can be done right away?
- What activities can be immediately and safely delegated to available persons?
- Is traffic control required?

***Step 6. Respond***

Respond in an appropriate manner. Activate formal emergency response plans including the establishment of a command post and lines of communication. Rescue casualties where possible and evacuate if necessary. Maintain control of the site. Continually reassess the situation and modify the response accordingly. The first duty is to ensure the safety of all people in the immediate area including your own. Always seek and utilise expert advice, specialised equipment and technical know-how.

## 5. POINTS TO CONSIDER IN THE EFFECTIVE MANAGEMENT OF AN EMERGENCY

In order to manage a dangerous goods emergency effectively, many different questions need to be addressed by the first responder. Consider the following when at an accident site involving dangerous goods.

(a) Identify the products involved from any available documents. If not possible, at least identify the hazards from the vehicle or container placards.

(b) Minimise exposure to chemicals by working upwind (blowing from you to the incident). If possible also approach from uphill. Wear appropriate protective clothing and avoid inhaling gases, fumes, and smoke.

(c) Use the information on the physical and chemical properties of the product to judge response and evacuation.

(d) Many chemicals lack colour or offensive odours. Do not assume that they are harmless.

(e) Remember that many gases, when cold, are heavier than air.

(f) Decontaminate equipment, clothing, and personnel on site if it is safe to do so.

(g) Dispose of contaminated equipment and materials only after receiving specialist advice from the manufacturer or the local authorities.

(h) Replenish used equipment.

(i) If human exposure has occurred, obtain medical assistance, ensuring full exposure details are advised.

# 6. PROTECTING THE PUBLIC FROM DANGEROUS GOODS INCIDENTS

Decisions on protecting the public at dangerous goods incidents should initially be made by the first emergency services officer on the scene. Such decisions should not be deferred to a senior officer, who may not arrive until some time afterwards. Specialist advice should be sought, but a decision must be made at the scene.

The two steps are: 1. **ISOLATION** and
2. **PROTECTIVE ACTION**

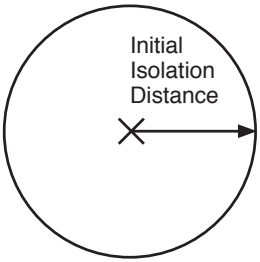
**Isolation**

Firstly determine which area is immediately affected or at risk, then isolate it, removing all persons, from within the initial isolation zone

A suggested Initial isolation distance is given in each guide under the heading public safety.

In most incidents, once the situation has been assessed and appropriate advice taken, there is no need for further action to protect the public other than establishing this zone.

INITIAL ISOLATION ZONE




**Protective action**

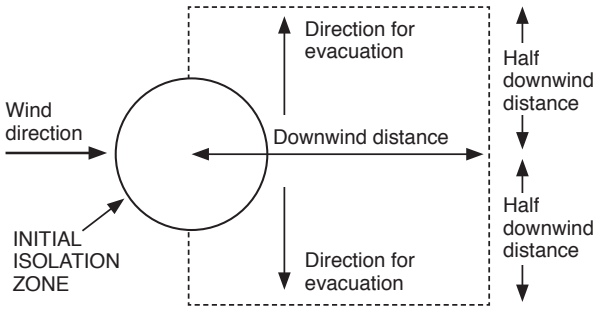
Further action may sometimes be necessary to protect the public from risks associated with more severe incidents. These risks may include fire, explosion, smoke, fumes or toxic gases.

Each guide gives distances for different events under the heading Evacuation. These distances must be regarded only as guidelines for initial action as the overall situation must be considered when deciding the extent of protective actions. The distance is used to establish the protective action zone which will look like the diagram to the right.

The square defines the area where action must be taken to protect the public. It is then necessary to determine the most effective strategy to achieve this.

Evacuation is not the only available option and, for the majority of dangerous goods incidents, it may not be the preferred option.

PROTECTIVE ACTION ZONE




The options are PROTECT IN PLACE and EVACUATE.

### Protect in place

In the 'protect in place' strategy, the public in the protective action zone is immediately directed inside a building and advised to remain indoors until the danger passes. Always consider this option because it is simple and easy to implement. It also requires fewer staff than evacuation.

Houses and other enclosed buildings can provide a source of uncontaminated air which may give protection for a considerable time. Some contaminated air will penetrate, but the level of contamination will be significantly less than outside. As poisoning is a factor of both concentration and exposure time, there is normally less risk staying indoors.

'Protect in place' is the preferred option for many fires or spillages since the danger to the public has often reached its maximum before the emergency services arrive. In such cases, attempting an evacuation will unnecessarily increase the public's exposure to smoke or fumes.

| Protect in place if: | Do NOT protect in place if: |
|---|---|
| **There is not enough time to evacuate the public before the hazard affects the area.** | **The fumes or vapours present a risk of explosion.** |
| **The incident and hazard are likely to be of short duration (up to an hour or so).** | **It will take a long time for the fumes to clear the area.** |
| | **The building cannot be tightly closed.** |

Give the following instructions to residents and occupants if you decide to 'protect in place':

(a) Close all doors and windows, using blinds and curtains if fitted;

(b) Shut off all ventilating, heating, and cooling systems;

(c) Stay on the side of the building furthest from the incident;

(d) Tape or seal the gaps in or around windows, doors and ventilation ducts if the smoke or fumes become uncomfortable.

If there is a continued release of smoke or fumes over a long period, it may be necessary to organise a systematic evacuation through the contaminated atmosphere. The initial 'protect in place' decision will, however, allow time to muster the resources needed for a full systematic evacuation.

After the smoke or fumes have dispersed from the area, the buildings will retain contaminated air. As soon as the area is made safe, advise the sheltering public to move outside and ventilate their buildings.

### Evacuate

In an evacuation, the public is moved from a threatened area to a safer place. It is not sufficient to simply move people out of the protective action zone and allow them to congregate at its perimeter. Move them by a specific route to a definite location where they will not need to be moved again if the wind shifts or circumstances change.

To perform an evacuation, there must be enough time for the public to be warned to prepare to leave the area. Generally, if there is enough time, evacuation is likely to be the best protective option. However, evacuation requires time and manpower. It may place those being evacuated at risk and cause them suffering, stress, and dislocation.

Evacuation is the preferred option if:

(a) There is an immediate threat of fire, explosion or building collapse;

(b) There is time to evacuate before a threatening toxic gas leak occurs;

(c) It will take a long time for the fumes to clear from the area; or

(d) The buildings will not provide sufficient protection to 'protect in place'.

Evacuation should start with the people nearest the incident and those outdoors in direct view of the scene. As additional resources become available, expand the area to be evacuated downwind and crosswind. All movements should be across the prevailing wind by the most direct route.

The following factors will influence the time necessary for a successful evacuation.

- Size of area to be evacuated
- Time of day
- Weather conditions
- Road network
- Transport availability
- Number of people to be moved
- Level of disruption caused to the community
- Health and mobility of evacuees
- Ability to shut down any industrial processes
- Method by which the public are advised to evacuate

# 7. DANGEROUS GOODS CLASSIFICATION SYSTEM

The nine classes of dangerous goods, their divisions where applicable and a brief description of their characteristics are given below. These classes are shown on dangerous goods documents, class labels and placards.

**Class 1 Explosives**

1.1 Substances or articles which have a mass explosion hazard

1.2 Substances or articles which have a projection hazard but not a mass explosion hazard

1.3 Substances or articles which have a fire hazard and either a minor blast hazard or a minor projection hazard, or both, but not a mass explosion hazard

1.4 Substances or articles which present no significant hazard; explosion effects are largely confined to the package and no projection or fragments of appreciable size or range are to be expected

1.5 Very insensitive substances which have a mass explosion hazard like those substances in 1.1

1.6 Extremely insensitive substances which do not have a mass explosion hazard.

**Class 2 Gases**

2.1 Flammable gases

2.2 Non-flammable, non-toxic gases

2.3 Toxic gases.

**Class 3 Flammable liquids**

Class 3 includes flammable liquids and liquid desensitised explosives.

The degree of hazard is indicated by the packing group:

| Packing group | Flashpoint | Initial boiling point |
|---|---|---|
| PG I | – | ≤ 35 ºC |
| PG II | < 23 ºC | > 35 ºC |
| PG III | ≥ 23 ºC, ≤ 60 ºC | > 35 ºC |

**Class 4 Flammable solids, substances liable to spontaneous combustion and substances which in contact with water emit flammable gases**

4.1 Flammable solids; self-reactive substances; and solid desensitised explosives.

4.2 Substances liable to spontaneous combustion, which either immediately catch fire or self-heat on contact with air.

4.3 'Dangerous when wet' substances which, in contact with water or water vapour, emit dangerous quantities of flammable gases.

The degree of hazard is indicated by the packing group, except for self-reactive substances which are classified into seven types A – G according to the degree of danger. Type A is too

dangerous for transport in the packaging in which it was tested and type G is not subject to controls for transport as dangerous goods.

**Class 5 Oxidizing substances and organic peroxides**

5.1 Substances, which although not necessarily combustible, may readily liberate oxygen, or be the cause of oxidation processes and which, as a result, may start a fire in other materials or stimulate the combustion of other materials, and therefore increase the violence of a fire. The degree of hazard is indicated by the packing group.

5.2 Organic compounds which are also strong oxidizing agents and may be liable to explosive decomposition. Most burn rapidly, are sensitive to heat, shock, impact or friction and react dangerously with other substances.

Organic peroxides are classified into seven types A – G according to the degree of danger. Type A is too dangerous for transport in the packaging in which it was tested and type G is not subject to controls for transport as dangerous goods.

**Class 6 Toxic (poisonous) substances and infectious substances**

6.1 Substances which are liable to cause death or serious injury to health if swallowed, inhaled or by skin contact (PG I and II); or substances of lesser hazard (PG III) which are harmful to health if swallowed, inhaled or by skin contact. The degree of hazard is indicated by the packing group.

6.2 Substances containing organisms that are known or reasonably believed to cause disease in humans or animals.

**Class 7 Radioactive material**

Radioactive material is any material containing radionuclides where both the activity concentration and the total activity in the consignment exceed the values specified in the United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations. The consignor will have applied the label based on these criteria or in accordance with the requirements of, in New Zealand, the National Radiation Laboratory (NRL) and, in Australia, separate State and territory legislation and the Code of Practice for the Safe Transport of Radioactive Substances.

**Class 8 Corrosive substances**

Substances which, by chemical action, will cause severe damage in contact with living tissue, or will damage or even destroy other materials, especially metals.

The degree of hazard is indicated by the packing group.

**Class 9 Miscellaneous dangerous goods**

Substances or articles which present a danger not covered by other classes. Class 9 includes a number of substances and articles which present a relatively low hazard and environmentally hazardous substances that do not meet the criteria for another class.

The degree of hazard is indicated by the packing group.

**Desensitised explosive**

A desensitised explosive is an explosive substance that has had its explosive properties suppressed by

- wetting the substance with water or alcohol, or
- diluting the substance by mixing with another non-explosive substance, or
- dissolving the substance in water, alcohol or other liquid; and
- packaging the substance in such a way to be excluded from Class 1 by virtue of test results.

**Subsidiary risks (Sub-risks; S/R)**

Many dangerous goods present more than one hazard. These goods are classified according to their primary hazard, and their additional hazards are called subsidiary risks. A subsidiary risk is identified on transport documentation and by the presence of more than one class or division label. All primary and sub-risk hazards must be considered when determining emergency response.

**Packing Group (PG) = Degree of danger**

Most dangerous goods of classes 3, 4, 5.1, 6.1, 8 and 9 and divisions 5.1 and 6.1 have been divided into three packing groups indicating the degree of danger presented by the substance. This information is shown on documentation in roman numerals. It is not required to be displayed on packaging and substance labels, but it is permitted and is common practice in New Zealand.

| | |
|---|---|
| Packing Group I (PGI) | High danger – substances that pose an immediate threat to life, health or property whenever there is a leak, spill or fire, even in very small quantities. |
| Packing Group II (PGII) | Medium danger – substances that pose a significant threat in a fire or larger spill or leak. Flammable substances of PG II will ignite readily at ambient temperatures. |
| Packing Group III (PGIII) | Low danger – substances that are similar in hazard to many found in domestic situations. Flammable substances of PG III will usually be difficult to ignite at ambient temperatures. Generally PG III substances pose a significant threat to health or property in open areas only when involved in a large fire or in a major spill or leak. |

NOTE – Packing Groups are not assigned to self-reactive substances of Division 4.1 and articles of any class or division.

# 8. CRIMINAL/TERRORIST USE OF CHEMICAL/BIOLOGICAL AGENTS

The following is intended to supply information to first responders for use in making a preliminary assessment of a situation that they suspect involves criminal/terrorist use of chemical and/or biological (CB) agents. Anyone else discovering a suspicious item should isolate the area and notify the Police. To aid in the assessment, check the list of observable indicators of the use and/or presence of a CB agent.

**Differences between a chemical and a biological agent**

Chemical and biological agents can be dispersed in the air we breathe, the water we drink, or on surfaces we physically contact. Dispersion methods may be as simple as opening a container, using conventional (garden) spray devices, or as elaborate as detonating an improvised explosive device.

Chemical incidents are characterised by the rapid onset of medical symptoms (minutes to hours) and easily observed signatures (coloured residue, dead foliage, pungent odour, dead insects, fish, and animals).

Biological incidents are characterised by the onset of symptoms in hours to days. Typically, there will be no characteristic signatures because biological agents are usually odourless and colourless. Because of the delayed onset of symptoms in a biological incident, the area affected may be greater due to the movement of infected individuals.

**Indicators of a possible chemical incident**

Check for:

| | |
|---|---|
| *Dead animals/birds/fish* | Not just an occasional road kill, but numerous animals (wild and domestic, small and large), birds, and fish in the same area. |
| *Lack of insect life* | If normal insect activity (ground, air, and/or water) is missing, check the ground/water surface/shore line for dead insects. If near water, check for dead fish/aquatic birds. |
| *Unexplained odours* | Smells may range from fruity to flowery to sharp/pungent to garlic/ horseradish-like to bitter almonds/peach kernels to new mown hay. It is important to note that the particular odour is completely out of character with its surroundings. |
| *Unusual numbers of dying or sick people casualties)* | Health problems include nausea, disorientation, difficulty in breathing, convulsions, localised sweating, conjunctivitis (*(mass* reddening of eyes/nerve agent symptoms), erythema (reddening of skin/vesicant symptoms) and death. |
| *Pattern of casualties* | Casualties will likely be distributed downwind, or if indoors, in areas fed by a contaminated air ventilation system. |
| *Blisters/rashes* | Numerous individuals experiencing unexplained water-like blisters, weals (like bee stings), and/or rashes. |

| | |
|---|---|
| *Illness in confined area* | Different casualty rates for people working indoors versus outdoors dependent on where the agent was released. |
| *Unusual liquid droplets* | Numerous surfaces exhibit oily droplets/film; numerous water surfaces have an oily film. (No recent rain.) |
| *Different looking areas* | Not just a patch of dead weeds, but trees, shrubs, bushes, food crops, and/or lawns that are dead, discoloured, or withered. (No current drought.) |
| *Low-lying clouds* | Low-lying cloud/fog-like condition that is not consistent with its surroundings. |
| *Unusual metal debris* | Unexplained bomb/munitions-like material, especially if it contains a liquid. |

**Indicators of a possible biological incident**

*Unusual numbers of sick or dying people or animals* – Any number of symptoms may occur. Casualties may occur hours to days after an incident has occurred. The time required before symptoms are observed depends on the agent used.

*Unscheduled and unusual spray being disseminated* – Especially if outdoors during periods of darkness.

*Abandoned spray devices* – Devices may not have distinct odours.

**Personal safety conditions**

When approaching a scene that may involve CB agents, the most critical consideration is the safety of oneself and other responders. Protective clothing and respiratory protection of appropriate level of safety must be used. Be aware that the presence and identification of CB agents may not be verifiable, especially in the case of biological agents. The following actions/measures to be considered are applicable to either a chemical or biological incident. The guidance is general in nature, not all encompassing, and its applicability should be evaluated on a case-by-case basis.

**Approach and response strategies**

Protect yourself and use a safe approach (minimise any exposure time, maximise the distance between you and the item that is likely to harm you, use cover as protection and wear appropriate personal protective equipment and respiratory protection). Identify and estimate the hazard by using indicators as provided above. Isolate the area and secure the scene; potentially contaminated people should be isolated and decontaminated as soon as possible. In the event of a chemical incident, the fading of chemical odours is not necessarily an indication of reduced vapour concentrations. Some chemicals deaden the senses giving the false perception that the chemical is no longer present.

**Decontamination measures**

Emergency responders should follow standard decontamination procedures (flush-strip-flush). Mass casualty decontamination should begin as soon as possible by stripping (all clothing) and flushing (soap and water). If biological agents are involved or suspected, wash

with copious water and soap, using a cloth or sponge. If chemical agents are suspected, the most important and effective decontamination will be that undertaken within the first one or two minutes. It is preferable to decontaminate using a 0.5% hypochlorite solution (this can be made from 1 part household bleach mixed with 9 parts water). If biological agents are suspected, the decontamination solution should have a contact time of 10 to 15 minutes before rinsing. The solution can be used on soft tissue wounds, but must not be used in eyes or open wounds of the abdomen, chest, brain, or spine. For further information contact the agencies listed in this handbook.

NOTE – This information was developed by the Department of National Defence (Canada), and the U.S.A. Department of the Army, Edgewood Arsenal.



## 9. CLEAR COMMUNICATION

It is absolutely vital that the communication of incident details is accurate. The names of a number of chemicals can vary by only one or two letters, and they may sound similar, but their hazards may be widely different. To avoid confusion, the key item for transmitting chemical details should always be the UN number, which should be available from the documents. All information available should be transmitted. Whenever it is necessary to transmit names, it is strongly advised that the phonetic alphabet is used to avoid errors and to ensure accurate spelling of product names.

**PHONETIC ALPHABET**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A | Alpha | H | Hotel | O | Oscar | V | Victor |
| B | Bravo | I | India | P | Papa | W | Whisky |
| C | Charlie | J | Juliet | Q | Quebec | X | X-ray |
| D | Delta | K | Kilo | R | Romeo | Y | Yankee |
| E | Echo | L | Lima | S | Sierra | Z | Zulu |
| F | Foxtrot | M | Mike | T | Tango | | |
| G | Golf | N | November | U | Uniform | | |

Example – Chemical name NITRIC ACID would be spelled out as:

| | | | |
|---|---|---|---|
| N | November | A | Alpha |
| I | India | C | Charlie |
| T | Tango | I | India |
| R | Romeo | D | Delta |
| I | India | | |
| C | Charlie | | |

## 10. NOTES TO THE LISTS

The numerical list gives the UN number, guide number, and proper shipping name of the dangerous goods.

The alphabetical list gives the proper shipping name, guide number, and UN number of the dangerous goods. When determining the alphabetical order of entries, numbers, Greek letters, and abbreviations (such as 'sec-', 'tert-', 'n', 'o', 'p', and 'N.O.S.') have been disregarded even when they form part of the proper shipping name.

The name of a substance in block capital letters indicates a proper shipping name, an alternative proper shipping name, or part of a proper shipping name. An entry in lower case letters indicates that the entry is not a proper shipping name but is a synonym. Where an entry is partly in upper case letters and partly in lower case letters, the lower case part is not considered part of the proper shipping name.

# NOTES

# NOTES

# 11. LIST OF U.N. NUMBERS

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|

* denotes a substance or article that has been deleted from the UN list of Proper Shipping Names. Obsolete numbers are included in the list of UN Numbers to provide emergency information should they be encountered in an emergency.

D Indicates that the substance may decompose explosively.

P Indicates that the substance may polymerise violently. This polymerisation can produce heat and pressure build-up in containers and may cause them to explode.

† denotes a UN number that is not in the latest edition of the ADG Code but has been added by the latest revised edition of the UN Model Regulations. Use of this number on labels and transport documentation may not comply with Australian law unless authorised by the competent authority.

| | | |
|---|---|---|
| 0001* | 02 | ALARM DEVICES, AUTOMATIC (AUTO ALARMS) |
| 0004 | 02 | AMMONIUM PICRATE |
| 0005 | 02 | CARTRIDGES FOR WEAPONS |
| 0006 | 02 | CARTRIDGES FOR WEAPONS |
| 0007 | 02 | CARTRIDGES FOR WEAPONS |
| 0009 | 02 | AMMUNITION, INCENDIARY |
| 0010 | 02 | AMMUNITION, INCENDIARY |
| 0012 | 03 | CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS |
| 0014 | 03 | CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK |
| 0015 | 02 | AMMUNITION, SMOKE |
| 0016 | 02 | AMMUNITION, SMOKE |
| 0018 | 02 | AMMUNITION, TEAR-PRODUCING |
| 0019 | 02 | AMMUNITION, TEAR-PRODUCING |
| 0020 | 02 | AMMUNITION, TOXIC |
| 0021 | 02 | AMMUNITION, TOXIC |
| 0027 | 02 | BLACK POWDER (GUNPOWDER) |
| 0028 | 02 | BLACK POWDER (GUNPOWDER), COMPRESSED or BLACK POWDER (GUNPOWDER), IN PELLETS |
| 0029 | 02 | DETONATORS, NON-ELECTRIC |
| 0030 | 02 | DETONATORS, ELECTRIC |
| 0033 | 02 | BOMBS |
| 0034 | 02 | BOMBS |
| 0035 | 02 | BOMBS |
| 0037 | 02 | BOMBS, PHOTO-FLASH |
| 0038 | 02 | BOMBS, PHOTO-FLASH |
| 0039 | 02 | BOMBS, PHOTO-FLASH |
| 0042 | 02 | BOOSTERS |
| 0043 | 02 | BURSTERS |
| 0044 | 03 | PRIMERS, CAP TYPE |
| 0048 | 02 | CHARGES, DEMOLITION |
| 0049 | 02 | CARTRIDGES, FLASH |
| 0050 | 02 | CARTRIDGES, FLASH |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 0054 | 02 | CARTRIDGES, SIGNAL |
| 0055 | 03 | CASES, CARTRIDGE, EMPTY, WITH PRIMER |
| 0056 | 02 | CHARGES, DEPTH |
| 0059 | 02 | CHARGES, SHAPED |
| 0060 | 02 | CHARGES, SUPPLEMENTARY, EXPLOSIVE |
| 0065 | 02 | CORD, DETONATING |
| 0066 | 03 | CORD, IGNITER |
| 0070 | 03 | CUTTERS, CABLE, EXPLOSIVE |
| 0072 | 02 | CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX), WETTED |
| 0073 | 02 | DETONATORS FOR AMMUNITION |
| 0074 | 02 | DIAZODINITROPHENOL, WETTED |
| 0075 | 02 | DIETHYLENEGLYCOL DINITRATE, DESENSITIZED |
| 0076 | 02 | DINITROPHENOL |
| 0077 | 02 | DINITROPHENOLATES |
| 0078 | 02 | DINITRORESORCINOL |
| 0079 | 02 | HEXANITRODIPHENYLAMINE (DIPICRYLAMINE; HEXYL) |
| 0081 | 02 | EXPLOSIVE, BLASTING, TYPE A |
| 0082 | 02 | EXPLOSIVE, BLASTING, TYPE B |
| 0083 | 02 | EXPLOSIVE, BLASTING, TYPE C |
| 0084 | 02 | EXPLOSIVE, BLASTING, TYPE D |
| 0092 | 02 | FLARES, SURFACE |
| 0093 | 02 | FLARES, AERIAL |
| 0094 | 02 | FLASH POWDER |
| 0096* | 02 | PHOTO-FLASH POWDER |
| 0099 | 02 | FRACTURING DEVICES, EXPLOSIVE |
| 0101 | 02 | FUSE, NON-DETONATING |
| 0102 | 02 | CORD (FUSE), DETONATING |
| 0103 | 03 | FUSE, IGNITER |
| 0104 | 03 | CORD (FUSE), DETONATING, MILD EFFECT |
| 0105 | 03 | FUSE, SAFETY |
| 0106 | 02 | FUZES, DETONATING |
| 0107 | 02 | FUZES, DETONATING |
| 0110 | 03 | GRENADES, PRACTICE |
| 0113 | 02 | GUANYL NITROSAMINOGUANYLIDENE HYDRAZINE, WETTED |
| 0114 | 02 | GUANYL NITROSAMINOGUANYLTETRAZENE (TETRAZENE), WETTED |
| 0118 | 02 | HEXOLITE (HEXOTOL) |
| 0121 | 02 | IGNITERS |
| 0124 | 02 | JET PERFORATING GUNS, CHARGED |
| 0129 | 02 | LEAD AZIDE, WETTED |
| 0130 | 02 | LEAD STYPHNATE (LEAD TRINITRORESORCINATE), WETTED |
| 0131 | 03 | LIGHTERS, FUSE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 0132 | 02 | DEFLAGRATING METAL SALTS OF AROMATIC NITRODERIVATIVES, N.O.S. |
| 0133 | 02 | MANNITOL HEXANITRATE (NITROMANNITE), WETTED |
| 0135 | 02 | MERCURY FULMINATE, WETTED |
| 0136 | 02 | MINES |
| 0137 | 02 | MINES |
| 0138 | 02 | MINES |
| 0143 | 02 | NITROGLYCERIN, DESENSITIZED |
| 0144 | 02 | NITROGLYCERIN SOLUTION IN ALCOHOL |
| 0146 | 02 | NITROSTARCH |
| 0147 | 02 | NITRO UREA |
| 0150 | 02 | PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN), WETTED or PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN), DESENSITIZED |
| 0151 | 02 | PENTOLITE |
| 0153 | 02 | TRINITROANILINE (PICRAMIDE) |
| 0154 | 02 | TRINITROPHENOL (PICRIC ACID) |
| 0155 | 02 | TRINITROCHLOROBENZENE (PICRYL CHLORIDE) |
| 0158* | 02 | POTASSIUM SALTS OF NITRO AROMATIC DERIVATIVES |
| 0159 | 02 | POWDER CAKE (POWDER PASTE), WETTED |
| 0160 | 02 | POWDER, SMOKELESS |
| 0161 | 02 | POWDER, SMOKELESS |
| 0167 | 02 | PROJECTILES |
| 0168 | 02 | PROJECTILES |
| 0169 | 02 | PROJECTILES |
| 0171 | 02 | AMMUNITION, ILLUMINATING |
| 0173 | 03 | RELEASE DEVICES, EXPLOSIVE |
| 0174 | 03 | RIVETS, EXPLOSIVE |
| 0180 | 02 | ROCKETS |
| 0181 | 02 | ROCKETS |
| 0182 | 02 | ROCKETS |
| 0183 | 02 | ROCKETS |
| 0186 | 02 | ROCKET MOTORS |
| 0190 | 02 | SAMPLES, EXPLOSIVE |
| 0191 | 03 | SIGNAL DEVICES, HAND |
| 0192 | 02 | SIGNALS, RAILWAY TRACK, EXPLOSIVE |
| 0193 | 03 | SIGNALS, RAILWAY TRACK, EXPLOSIVE |
| 0194 | 02 | SIGNALS, DISTRESS |
| 0195 | 02 | SIGNALS, DISTRESS |
| 0196 | 02 | SIGNALS, SMOKE |
| 0197 | 03 | SIGNALS, SMOKE |
| 0203* | 02 | SODIUM SALTS OF NITRO AROMATIC DERIVATIVES |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 0204 | 02 | SOUNDING DEVICES, EXPLOSIVE |
| 0206* | 03 | SQUIBS |
| 0207 | 02 | TETRANITROANILINE |
| 0208 | 02 | TRINITROPHENYLMETHYLNITRAMINE (TETRYL) |
| 0209 | 02 | TRINITROTOLUENE (TNT) |
| 0212 | 02 | TRACERS FOR AMMUNITION |
| 0213 | 02 | TRINITROANISOLE |
| 0214 | 02 | TRINITROBENZENE |
| 0215 | 02 | TRINITROBENZOIC ACID |
| 0216 | 02 | TRINITRO-m-CRESOL |
| 0217 | 02 | TRINITRONAPHTHALENE |
| 0218 | 02 | TRINITROPHENETOLE |
| 0219 | 02 | TRINITRORESORCINOL (STYPHNIC ACID) |
| 0220 | 02 | UREA NITRATE |
| 0221 | 02 | WARHEADS, TORPEDO |
| 0222 | 02 | AMMONIUM NITRATE |
| 0223* | 02 | AMMONIUM NITRATE FERTILIZER |
| 0224 | 02 | BARIUM AZIDE |
| 0225 | 02 | BOOSTERS WITH DETONATOR |
| 0226 | 02 | CYCLOTETRAMETHYLENETETRANITRAMINE (HMX; OCTOGEN), WETTED |
| 0234 | 02 | SODIUM DINITRO-o-CRESOLATE |
| 0235 | 02 | SODIUM PICRAMATE |
| 0236 | 02 | ZIRCONIUM PICRAMATE |
| 0237 | 03 | CHARGES, SHAPED, FLEXIBLE, LINEAR |
| 0238 | 02 | ROCKETS, LINE-THROWING |
| 0240 | 02 | ROCKETS, LINE-THROWING |
| 0241 | 02 | EXPLOSIVE, BLASTING, TYPE E |
| 0242 | 02 | CHARGES, PROPELLING, FOR CANNON |
| 0243 | 02 | AMMUNITION, INCENDIARY, WHITE PHOSPHORUS |
| 0244 | 02 | AMMUNITION, INCENDIARY, WHITE PHOSPHORUS |
| 0245 | 02 | AMMUNITION, SMOKE, WHITE PHOSPHORUS |
| 0246 | 02 | AMMUNITION, SMOKE, WHITE PHOSPHORUS |
| 0247 | 02 | AMMUNITION, INCENDIARY |
| 0248 | 02 | CONTRIVANCES, WATER-ACTIVATED |
| 0249 | 02 | CONTRIVANCES, WATER-ACTIVATED |
| 0250 | 02 | ROCKET MOTORS WITH HYPERGOLIC LIQUIDS |
| 0254 | 02 | AMMUNITION, ILLUMINATING |
| 0255 | 03 | DETONATORS, ELECTRIC |
| 0257 | 03 | FUZES, DETONATING |
| 0266 | 02 | OCTOLITE (OCTOL) |
| 0267 | 03 | DETONATORS, NON-ELECTRIC |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 0268 | 02 | BOOSTERS WITH DETONATOR |
| 0271 | 02 | CHARGES, PROPELLING |
| 0272 | 02 | CHARGES, PROPELLING |
| 0273* | 02 | CHARGES, PROPELLING, FOR ROCKET MOTORS |
| 0274* | 02 | CHARGES, PROPELLING, FOR ROCKET MOTORS |
| 0275 | 02 | CARTRIDGES, POWER DEVICE |
| 0276 | 03 | CARTRIDGES, POWER DEVICE |
| 0277 | 02 | CARTRIDGES, OIL WELL |
| 0278 | 03 | CARTRIDGES, OIL WELL |
| 0279 | 02 | CHARGES, PROPELLING, FOR CANNON |
| 0280 | 02 | ROCKET MOTORS |
| 0281 | 02 | ROCKET MOTORS |
| 0282 | 02 | NITROGUANIDINE (PICRITE) |
| 0283 | 02 | BOOSTERS |
| 0284 | 02 | GRENADES |
| 0285 | 02 | GRENADES |
| 0286 | 02 | WARHEADS, ROCKET |
| 0287 | 02 | WARHEADS, ROCKET |
| 0288 | 02 | CHARGES, SHAPED, FLEXIBLE, LINEAR |
| 0289 | 03 | CORD, DETONATING |
| 0290 | 02 | CORD (FUSE), DETONATING |
| 0291 | 02 | BOMBS |
| 0292 | 02 | GRENADES |
| 0293 | 02 | GRENADES |
| 0294 | 02 | MINES |
| 0295 | 02 | ROCKETS |
| 0296 | 02 | SOUNDING DEVICES, EXPLOSIVE |
| 0297 | 03 | AMMUNITION, ILLUMINATING |
| 0299 | 02 | BOMBS, PHOTO-FLASH |
| 0300 | 03 | AMMUNITION, INCENDIARY |
| 0301 | 03 | AMMUNITION, TEAR-PRODUCING |
| 0303 | 03 | AMMUNITION, SMOKE |
| 0305 | 02 | FLASH POWDER |
| 0306 | 03 | TRACERS FOR AMMUNITION |
| 0312 | 03 | CARTRIDGES, SIGNAL |
| 0313 | 02 | SIGNALS, SMOKE |
| 0314 | 02 | IGNITERS |
| 0315 | 02 | IGNITERS |
| 0316 | 02 | FUZES, IGNITING |
| 0317 | 03 | FUZES, IGNITING |
| 0318 | 02 | GRENADES, PRACTICE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 0319 | 02 | PRIMERS, TUBULAR |
| 0320 | 03 | PRIMERS, TUBULAR |
| 0321 | 02 | CARTRIDGES FOR WEAPONS |
| 0322 | 02 | ROCKET MOTORS WITH HYPERGOLIC LIQUIDS |
| 0323 | 03 | CARTRIDGES, POWER DEVICE |
| 0324 | 02 | PROJECTILES |
| 0325 | 03 | IGNITERS |
| 0326 | 02 | CARTRIDGES FOR WEAPONS, BLANK |
| 0327 | 02 | CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK |
| 0328 | 02 | CARTRIDGES FOR WEAPONS, INERT PROJECTILE |
| 0329 | 02 | TORPEDOES |
| 0330 | 02 | TORPEDOES |
| 0331 | 02 | EXPLOSIVE, BLASTING, TYPE B, AGENT, BLASTING, TYPE B |
| 0332 | 02 | EXPLOSIVE, BLASTING, TYPE E, AGENT, BLASTING, TYPE E |
| 0333 | 02 | FIREWORKS |
| 0334 | 02 | FIREWORKS |
| 0335 | 02 | FIREWORKS |
| 0336 | 03 | FIREWORKS |
| 0337 | 03 | FIREWORKS |
| 0338 | 03 | CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK |
| 0339 | 03 | CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS |
| 0340 | 02 | NITROCELLULOSE |
| 0341 | 02 | NITROCELLULOSE |
| 0342 | 02 | NITROCELLULOSE, WETTED |
| 0343 | 02 | NITROCELLULOSE, PLASTICIZED |
| 0344 | 03 | PROJECTILES |
| 0345 | 03 | PROJECTILES |
| 0346 | 02 | PROJECTILES |
| 0347 | 03 | PROJECTILES |
| 0348 | 03 | CARTRIDGES FOR WEAPONS |
| 0349 | 03 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0350 | 03 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0351 | 03 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0352 | 03 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0353 | 03 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0354 | 02 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0355 | 02 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0356 | 02 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0357 | 02 | SUBSTANCES, EXPLOSIVE, N.O.S. |
| 0358 | 02 | SUBSTANCES, EXPLOSIVE, N.O.S. |
| 0359 | 02 | SUBSTANCES, EXPLOSIVE, N.O.S. |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 0360 | 02 | DETONATOR ASSEMBLIES, NON-ELECTRIC |
| 0361 | 03 | DETONATOR ASSEMBLIES, NON-ELECTRIC |
| 0362 | 03 | AMMUNITION, PRACTICE |
| 0363 | 03 | AMMUNITION, PROOF |
| 0364 | 02 | DETONATORS FOR AMMUNITION |
| 0365 | 03 | DETONATORS FOR AMMUNITION |
| 0366 | 03 | DETONATORS FOR AMMUNITION |
| 0367 | 03 | FUZES, DETONATING |
| 0368 | 03 | FUZES, IGNITING |
| 0369 | 02 | WARHEADS, ROCKET |
| 0370 | 03 | WARHEADS, ROCKET |
| 0371 | 03 | WARHEADS, ROCKET |
| 0372 | 02 | GRENADES, PRACTICE |
| 0373 | 03 | SIGNAL DEVICES, HAND |
| 0374 | 02 | SOUNDING DEVICES, EXPLOSIVE |
| 0375 | 02 | SOUNDING DEVICES, EXPLOSIVE |
| 0376 | 03 | PRIMERS, TUBULAR |
| 0377 | 02 | PRIMERS, CAP TYPE |
| 0378 | 03 | PRIMERS, CAP TYPE |
| 0379 | 03 | CASES, CARTRIDGE, EMPTY, WITH PRIMER |
| 0380 | 02 | ARTICLES, PYROPHORIC |
| 0381 | 02 | CARTRIDGES, POWER DEVICE |
| 0382 | 02 | COMPONENTS, EXPLOSIVE TRAIN, N.O.S. |
| 0383 | 03 | COMPONENTS, EXPLOSIVE TRAIN, N.O.S. |
| 0384 | 03 | COMPONENTS, EXPLOSIVE TRAIN, N.O.S. |
| 0385 | 02 | 5-NITROBENZOTRIAZOL |
| 0386 | 02 | TRINITROBENZENESULPHONIC ACID |
| 0387 | 02 | TRINITROFLUORENONE |
| 0388 | 02 | TRINITROTOLUENE (TNT) AND TRINITROBENZENE MIXTURE or TRINITROTOLUENE (TNT) AND HEXANITROSTILBENE MIXTURE |
| 0389 | 02 | TRINITROTOLUENE (TNT) MIXTURE CONTAINING TRINITROBENZENE AND HEXANITROSTILBENE |
| 0390 | 02 | TRITONAL |
| 0391 | 02 | CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX) AND CYCLOTETRAMETHYLENETETRANITRAMINE (HMX; OCTOGEN) MIXTURE, WETTED or CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX) AND CYCLOTETRAMETHYLENETETRANITRAMINE (HMX; OCTOGEN) MIXTURE, DESENSITIZED |
| 0392 | 02 | HEXANITROSTILBENE |
| 0393 | 02 | HEXOTONAL |
| 0394 | 02 | TRINITRORESORCINOL (STYPHNIC ACID), WETTED |
| 0395 | 02 | ROCKET MOTORS, LIQUID FUELLED |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 0396 | 02 | ROCKET MOTORS, LIQUID FUELLED |
| 0397 | 02 | ROCKETS, LIQUID FUELLED |
| 0398 | 02 | ROCKETS, LIQUID FUELLED |
| 0399 | 02 | BOMBS WITH FLAMMABLE LIQUID |
| 0400 | 02 | BOMBS WITH FLAMMABLE LIQUID |
| 0401 | 02 | DIPICRYL SULPHIDE |
| 0402 | 02 | AMMONIUM PERCHLORATE |
| 0403 | 03 | FLARES, AERIAL |
| 0404 | 03 | FLARES, AERIAL |
| 0405 | 03 | CARTRIDGES, SIGNAL |
| 0406 | 02 | DINITROSOBENZENE |
| 0407 | 03 | TETRAZOL-1-ACETIC ACID |
| 0408 | 02 | FUZES, DETONATING |
| 0409 | 02 | FUZES, DETONATING |
| 0410 | 03 | FUZES, DETONATING |
| 0411 | 02 | PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN) |
| 0412 | 03 | CARTRIDGES FOR WEAPONS |
| 0413 | 02 | CARTRIDGES FOR WEAPONS, BLANK |
| 0414 | 02 | CHARGES, PROPELLING, FOR CANNON |
| 0415 | 02 | CHARGES, PROPELLING |
| 0416* | 02 | CHARGES, PROPELLING, FOR ROCKET MOTORS |
| 0417 | 02 | CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS |
| 0418 | 02 | FLARES, SURFACE |
| 0419 | 02 | FLARES, SURFACE |
| 0420 | 02 | FLARES, AERIAL |
| 0421 | 02 | FLARES, AERIAL |
| 0422* | 03 | SQUIBS |
| 0423* | 03 | SQUIBS |
| 0424 | 02 | PROJECTILES |
| 0425 | 03 | PROJECTILES |
| 0426 | 02 | PROJECTILES |
| 0427 | 03 | PROJECTILES |
| 0428 | 02 | ARTICLES, PYROTECHNIC |
| 0429 | 02 | ARTICLES, PYROTECHNIC |
| 0430 | 02 | ARTICLES, PYROTECHNIC |
| 0431 | 03 | ARTICLES, PYROTECHNIC |
| 0432 | 03 | ARTICLES, PYROTECHNIC |
| 0433 | 02 | POWDER CAKE (POWDER PASTE), WETTED |
| 0434 | 02 | PROJECTILES |
| 0435 | 03 | PROJECTILES |
| 0436 | 02 | ROCKETS |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 0437 | 02 | ROCKETS |
| 0438 | 03 | ROCKETS |
| 0439 | 02 | CHARGES, SHAPED |
| 0440 | 03 | CHARGES, SHAPED |
| 0441 | 03 | CHARGES, SHAPED |
| 0442 | 02 | CHARGES, EXPLOSIVE, COMMERCIAL |
| 0443 | 02 | CHARGES, EXPLOSIVE, COMMERCIAL |
| 0444 | 03 | CHARGES, EXPLOSIVE, COMMERCIAL |
| 0445 | 03 | CHARGES, EXPLOSIVE, COMMERCIAL |
| 0446 | 03 | CASES, COMBUSTIBLE, EMPTY, WITHOUT PRIMER |
| 0447 | 02 | CASES, COMBUSTIBLE, EMPTY, WITHOUT PRIMER |
| 0448 | 03 | 5-MERCAPTOTETRAZOL-1-ACETIC ACID |
| 0449 | 02 | TORPEDOES, LIQUID FUELLED |
| 0450 | 02 | TORPEDOES, LIQUID FUELLED |
| 0451 | 02 | TORPEDOES |
| 0452 | 03 | GRENADES, PRACTICE |
| 0453 | 03 | ROCKETS, LINE-THROWING |
| 0454 | 03 | IGNITERS |
| 0455 | 03 | DETONATORS, NON-ELECTRIC |
| 0456 | 03 | DETONATORS, ELECTRIC |
| 0457 | 02 | CHARGES, BURSTING, PLASTICS BONDED |
| 0458 | 02 | CHARGES, BURSTING, PLASTICS BONDED |
| 0459 | 03 | CHARGES, BURSTING, PLASTICS BONDED |
| 0460 | 03 | CHARGES, BURSTING, PLASTICS BONDED |
| 0461 | 02 | COMPONENTS, EXPLOSIVE TRAIN, N.O.S. |
| 0462 | 02 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0463 | 02 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0464 | 02 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0465 | 02 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0466 | 02 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0467 | 02 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0468 | 02 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0469 | 02 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0470 | 02 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0471 | 03 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0472 | 03 | ARTICLES, EXPLOSIVE, N.O.S. |
| 0473 | 02 | SUBSTANCES, EXPLOSIVE, N.O.S. |
| 0474 | 02 | SUBSTANCES, EXPLOSIVE, N.O.S. |
| 0475 | 02 | SUBSTANCES, EXPLOSIVE, N.O.S. |
| 0476 | 02 | SUBSTANCES, EXPLOSIVE, N.O.S. |
| 0477 | 02 | SUBSTANCES, EXPLOSIVE, N.O.S. |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 0478 | 02 | SUBSTANCES, EXPLOSIVE, N.O.S. |
| 0479 | 03 | SUBSTANCES, EXPLOSIVE, N.O.S. |
| 0480 | 03 | SUBSTANCES, EXPLOSIVE, N.O.S. |
| 0481 | 03 | SUBSTANCES, EXPLOSIVE, N.O.S. |
| 0482 | 02 | SUBSTANCES, EXPLOSIVE, VERY INSENSITIVE (SUBSTANCES, EVI), N.O.S. |
| 0483 | 02 | CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX), DESENSITIZED |
| 0484 | 02 | CYCLOTETRAMETHYLENETETRANITRAMINE (HMX; OCTOGEN), DESENSITIZED |
| 0485 | 03 | SUBSTANCES, EXPLOSIVE, N.O.S. |
| 0486 | 02 | ARTICLES, EXPLOSIVE, EXTREMELY INSENSITIVE (ARTICLES, EEI) |
| 0487 | 02 | SIGNALS, SMOKE |
| 0488 | 02 | AMMUNITION, PRACTICE |
| 0489 | 02 | DINITROGLYCOLURIL (DINGU) |
| 0490 | 02 | NITROTRIAZOLONE (NTO) |
| 0491 | 03 | CHARGES, PROPELLING |
| 0492 | 02 | SIGNALS, RAILWAY TRACK, EXPLOSIVE |
| 0493 | 03 | SIGNALS, RAILWAY TRACK, EXPLOSIVE |
| 0494 | 03 | JET PERFORATING GUNS, CHARGED |
| 0495 | 02 | PROPELLANT, LIQUID |
| 0496 | 02 | OCTONAL |
| 0497 | 02 | PROPELLANT, LIQUID |
| 0498 | 02 | PROPELLANT, SOLID |
| 0499 | 02 | PROPELLANT, SOLID |
| 0500 | 03 | DETONATOR ASSEMBLIES, NON-ELECTRIC |
| 0501 | 02 | PROPELLANT, SOLID |
| 0502 | 02 | ROCKETS |
| 0503 | 03 | AIR-BAG INFLATORS, or AIR-BAG MODULES, or SEAT-BELT PRETENSIONERS |
| 0504 | 02 | 1H-TETRAZOLE |
| 0505 | 03 | SIGNALS, DISTRESS |
| 0506 | 03 | SIGNALS, DISTRESS |
| 0507 | 03 | SIGNALS, SMOKE |
| 0508 | 02 | 1-HYDROXYBENZOTRIAZOLE, ANHYDROUS |
| 0509 | 03 | POWDER, SMOKELESS |
| 1001 | 04DP | ACETYLENE, DISSOLVED |
| 1002 | 10 | AIR, COMPRESSED |
| 1003 | 10 | AIR, REFRIGERATED LIQUID |
| 1005 | 05 | AMMONIA, ANHYDROUS |
| 1006 | 08 | ARGON, COMPRESSED |
| 1008 | 07 | BORON TRIFLUORIDE |
| 1009 | 08 | BROMOTRIFLUOROMETHANE (REFRIGERANT GAS R 13B1) |
| 1010 | 04P | BUTADIENES, STABILIZED or BUTADIENES AND HYDROCARBON MIXTURE, |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| | | STABILIZED |
| 1011 | 04 | BUTANE |
| 1012 | 04 | BUTYLENE |
| 1013 | 09 | CARBON DIOXIDE |
| 1014* | 10 | CARBON DIOXIDE AND OXYGEN MIXTURE, COMPRESSED |
| 1015* | 06 | CARBON DIOXIDE AND NITROUS OXIDE MIXTURE |
| 1016 | 05 | CARBON MONOXIDE, COMPRESSED |
| 1017 | 12 | CHLORINE |
| 1018 | 06 | CHLORODIFLUOROMETHANE (REFRIGERANT GAS R 22) |
| 1020 | 06 | CHLOROPENTAFLUOROETHANE (REFRIGERANT GAS R 115) |
| 1021 | 06 | 1-CHLORO-1,2,2,2-TETRAFLUOROETHANE (REFRIGERANT GAS R 124) |
| 1022 | 06 | CHLOROTRIFLUOROMETHANE (REFRIGERANT GAS R 13) |
| 1023 | 05 | COAL GAS, COMPRESSED |
| 1026 | 05 | CYANOGEN |
| 1027 | 04 | CYCLOPROPANE |
| 1028 | 06 | DICHLORODIFLUOROMETHANE (REFRIGERANT GAS R 12) |
| 1029 | 06 | DICHLOROFLUOROMETHANE (REFRIGERANT GAS R 21) |
| 1030 | 04 | 1,1-DIFLUOROETHANE (REFRIGERANT GAS R 152a) |
| 1031* | 04 | DIFLUOROMONOCHLOROETHANE (REFRIGERANT GAS R 142) |
| 1032 | 05 | DIMETHYLAMINE, ANHYDROUS |
| 1033 | 04D | DIMETHYL ETHER |
| 1035 | 04 | ETHANE |
| 1036 | 05 | ETHYLAMINE |
| 1037 | 04 | ETHYL CHLORIDE |
| 1038 | 04 | ETHYLENE, REFRIGERATED LIQUID |
| 1039 | 04 | ETHYL METHYL ETHER |
| 1040 | 05P | ETHYLENE OXIDE or ETHYLENE OXIDE WITH NITROGEN |
| 1041 | 05DP | ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE |
| 1043 | 07 | FERTILIZER AMMONIATING SOLUTION |
| 1044 | 08 | FIRE EXTINGUISHERS |
| 1045 | 12 | FLUORINE, COMPRESSED |
| 1046 | 08 | HELIUM, COMPRESSED |
| 1048 | 07 | HYDROGEN BROMIDE, ANHYDROUS |
| 1049 | 04 | HYDROGEN, COMPRESSED |
| 1050 | 07 | HYDROGEN CHLORIDE, ANHYDROUS |
| 1051 | 05DP | HYDROGEN CYANIDE, STABILIZED |
| 1052 | 07 | HYDROGEN FLUORIDE, ANHYDROUS |
| 1053 | 05 | HYDROGEN SULPHIDE |
| 1055 | 04 | ISOBUTYLENE |
| 1056 | 08 | KRYPTON, COMPRESSED |
| 1057 | 04 | LIGHTERS or LIGHTER REFILLS |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1058 | 08 | LIQUEFIED GASES |
| 1060 | 04P | METHYLACETYLENE AND PROPADIENE MIXTURE, STABILIZED |
| 1061 | 05 | METHYLAMINE, ANHYDROUS |
| 1062 | 07 | METHYL BROMIDE |
| 1063 | 05 | METHYL CHLORIDE (REFRIGERANT GAS R 40) |
| 1064 | 05 | METHYL MERCAPTAN |
| 1065 | 08 | NEON, COMPRESSED |
| 1066 | 08 | NITROGEN, COMPRESSED |
| 1067 | 12 | DINITROGEN TETROXIDE (NITROGEN DIOXIDE) |
| 1069 | 07 | NITROSYL CHLORIDE |
| 1070 | 10 | NITROUS OXIDE |
| 1071 | 05 | OIL GAS, COMPRESSED |
| 1072 | 11 | OXYGEN, COMPRESSED |
| 1073 | 11 | OXYGEN, REFRIGERATED LIQUID |
| 1075 | 04 | PETROLEUM GASES, LIQUEFIED |
| 1076 | 07 | PHOSGENE |
| 1077 | 04P | PROPYLENE |
| 1078 | 06 | REFRIGERANT GAS, N.O.S. |
| 1079 | 07 | SULPHUR DIOXIDE |
| 1080 | 06 | SULPHUR HEXAFLUORIDE |
| 1081 | 04P | TETRAFLUOROETHYLENE, STABILIZED |
| 1082 | 04P | TRIFLUOROCHLOROETHYLENE, STABILIZED |
| 1083 | 05 | TRIMETHYLAMINE, ANHYDROUS |
| 1085 | 04P | VINYL BROMIDE, STABILIZED |
| 1086 | 04P | VINYL CHLORIDE, STABILIZED |
| 1087 | 04P | VINYL METHYL ETHER, STABILIZED |
| 1088 | 14 | ACETAL |
| 1089 | 18 | ACETALDEHYDE |
| 1090 | 14 | ACETONE |
| 1091 | 14 | ACETONE OILS |
| 1092 | 18P | ACROLEIN, STABILIZED |
| 1093 | 16P | ACRYLONITRILE, STABILIZED |
| 1098 | 17 | ALLYL ALCOHOL |
| 1099 | 19 | ALLYL BROMIDE |
| 1100 | 18 | ALLYL CHLORIDE |
| 1101* | 25 | DIETHYL ALUMINIUM CHLORIDE |
| 1102* | 25 | ALUMINIUM TRIETHYL |
| 1103* | 25 | ALUMINIUM TRIMETHYL |
| 1104 | 18 | AMYL ACETATES |
| 1105 | 16 | PENTANOLS |
| 1106 | 18 | AMYLAMINE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1107 | 18 | AMYL CHLORIDE |
| 1108 | 14 | 1-PENTENE (n-AMYLENE) |
| 1109 | 18 | AMYL FORMATES |
| 1110 | 15 | n-AMYL METHYL KETONE |
| 1111 | 16 | AMYL MERCAPTAN |
| 1112 | 15 | AMYL NITRATE |
| 1113 | 16 | AMYL NITRITE |
| 1114 | 16 | BENZENE |
| 1115* | 14 | BENZINE |
| 1118* | 18 | BRAKE FLUID |
| 1120 | 16 | BUTANOLS |
| 1123 | 18 | BUTYL ACETATES |
| 1125 | 18 | n-BUTYLAMINE |
| 1126 | 16 | 1-BROMOBUTANE |
| 1127 | 18 | CHLOROBUTANES |
| 1128 | 18 | n-BUTYL FORMATE |
| 1129 | 18 | BUTYRALDEHYDE |
| 1130 | 15 | CAMPHOR OIL |
| 1131 | 16 | CARBON DISULPHIDE |
| 1132* | 14 | CARBON REMOVER |
| 1133 | 14 | ADHESIVES |
| 1134 | 17 | CHLOROBENZENE |
| 1135 | 19 | ETHYLENE CHLOROHYDRIN |
| 1136 | 14 | COAL TAR DISTILLATES, FLAMMABLE |
| 1137* | 15 | COAL TAR DISTILLATE, HFP |
| 1139 | 14 | COATING SOLUTION |
| 1142* | 14 | FLAMMABLE LIQUID PREPARATIONS, N.O.S. |
| 1143 | 18P | CROTONALDEHYDE or CROTONALDEHYDE, STABILIZED |
| 1144 | 14D | CROTONYLENE |
| 1145 | 14 | CYCLOHEXANE |
| 1146 | 14 | CYCLOPENTANE |
| 1147 | 19 | DECAHYDRONAPHTHALENE |
| 1148 | 16 | DIACETONE ALCOHOL |
| 1149 | 15 | DIBUTYL ETHERS |
| 1150 | 18P | 1,2-DICHLOROETHYLENE |
| 1152 | 17 | DICHLOROPENTANES |
| 1153 | 15 | ETHYLENE GLYCOL DIETHYL ETHER |
| 1154 | 18 | DIETHYLAMINE |
| 1155 | 14D | DIETHYL ETHER (ETHYL ETHER) |
| 1156 | 14 | DIETHYL KETONE |
| 1157 | 15 | DIISOBUTYL KETONE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1158 | 18 | DIISOPROPYLAMINE |
| 1159 | 14 | DIISOPROPYL ETHER |
| 1160 | 18 | DIMETHYLAMINE AQUEOUS SOLUTION |
| 1161 | 18 | DIMETHYL CARBONATE |
| 1162 | 25 | DIMETHYLDICHLOROSILANE |
| 1163 | 18 | DIMETHYLHYDRAZINE, UNSYMMETRICAL |
| 1164 | 18 | DIMETHYL SULPHIDE |
| 1165 | 14 | DIOXANE |
| 1166 | 14 | DIOXOLANE |
| 1167 | 14P | DIVINYL ETHER, STABILIZED |
| 1168* | 14 | DRIERS, PAINT or VARNISH, LIQUID, N.O.S. |
| 1169 | 14 | EXTRACTS, AROMATIC, LIQUID |
| 1170 | 14 | ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) |
| 1171 | 15 | ETHYLENE GLYCOL MONOETHYL ETHER |
| 1172 | 19 | ETHYLENE GLYCOL MONOETHYL ETHER ACETATE |
| 1173 | 18 | ETHYL ACETATE |
| 1175 | 16 | ETHYLBENZENE |
| 1176 | 38 | ETHYL BORATE |
| 1177 | 19 | 2-ETHYLBUTYL ACETATE |
| 1178 | 18 | 2-ETHYLBUTYRALDEHYDE |
| 1179 | 14 | ETHYL BUTYL ETHER |
| 1180 | 19 | ETHYL BUTYRATE |
| 1181 | 38 | ETHYL CHLOROACETATE |
| 1182 | 38 | ETHYL CHLOROFORMATE |
| 1183 | 27 | ETHYLDICHLOROSILANE |
| 1184 | 18 | ETHYLENE DICHLORIDE |
| 1185 | 18P | ETHYLENEIMINE, STABILIZED |
| 1188 | 15 | ETHYLENE GLYCOL MONOMETHYL ETHER |
| 1189 | 19 | ETHYLENE GLYCOL MONOMETHYL ETHER ACETATE |
| 1190 | 18 | ETHYL FORMATE |
| 1191 | 19 | OCTYL ALDEHYDES |
| 1192 | 19 | ETHYL LACTATE |
| 1193 | 14 | ETHYL METHYL KETONE (METHYL ETHYL KETONE) |
| 1194 | 18 | ETHYL NITRITE SOLUTION |
| 1195 | 18 | ETHYL PROPIONATE |
| 1196 | 25 | ETHYLTRICHLOROSILANE |
| 1197 | 14 | EXTRACTS, FLAVOURING, LIQUID |
| 1198 | 19 | FORMALDEHYDE SOLUTION, FLAMMABLE |
| 1199 | 19P | FURALDEHYDES |
| 1201 | 15 | FUSEL OIL |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1202 | 15 | GAS OIL or DIESEL FUEL or HEATING OIL LIGHT |
| 1203 | 14 | MOTOR SPIRIT or GASOLINE or PETROL |
| 1204 | 52 | NITROGLYCERIN SOLUTION IN ALCOHOL |
| 1205* | 14 | GUTTA PERCHA, SOLUTION, FLAMMABLE |
| 1206 | 14 | HEPTANES |
| 1207 | 19 | HEXALDEHYDE |
| 1208 | 14 | HEXANES |
| 1210 | 16 | PRINTING INK flammable or PRINTING INK RELATED MATERIAL |
| 1212 | 17 | ISOBUTANOL (ISOBUTYL ALCOHOL) |
| 1213 | 18 | ISOBUTYL ACETATE |
| 1214 | 18 | ISOBUTYLAMINE |
| 1216 | 14 | ISOOCTENE |
| 1218 | 18P | ISOPRENE, STABILIZED |
| 1219 | 16 | ISOPROPANOL (ISOPROPYL ALCOHOL) |
| 1220 | 18 | ISOPROPYL ACETATE |
| 1221 | 18 | ISOPROPYLAMINE |
| 1222 | 16D | ISOPROPYL NITRATE |
| 1223 | 15 | KEROSENE |
| 1224 | 14 | KETONES, LIQUID, N.O.S. |
| 1226* | 14 | LIGHTERS |
| 1228 | 16 | MERCAPTANS, LIQUID, FLAMMABLE, TOXIC, N.O.S. or MERCAPTAN MIXTURE, LIQUID, FLAMMABLE, TOXIC, N.O.S. |
| 1229 | 19 | MESITYL OXIDE |
| 1230 | 16 | METHANOL |
| 1231 | 18 | METHYL ACETATE |
| 1232* | 14 | METHYL ACETONE |
| 1233 | 19 | METHYLAMYL ACETATE |
| 1234 | 14 | METHYLAL |
| 1235 | 18 | METHYLAMINE, AQUEOUS SOLUTION |
| 1237 | 18 | METHYL BUTYRATE |
| 1238 | 38 | METHYL CHLOROFORMATE |
| 1239 | 18 | METHYL CHLOROMETHYL ETHER |
| 1242 | 25 | METHYLDICHLOROSILANE |
| 1243 | 18 | METHYL FORMATE |
| 1244 | 18D | METHYLHYDRAZINE |
| 1245 | 14 | METHYL ISOBUTYL KETONE |
| 1246 | 14P | METHYL ISOPROPENYL KETONE, STABILIZED |
| 1247 | 18P | METHYL METHACRYLATE MONOMER, STABILIZED |
| 1248 | 18 | METHYL PROPIONATE |
| 1249 | 14 | METHYL PROPYL KETONE |
| 1250 | 25 | METHYLTRICHLOROSILANE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1251 | 18P | METHYL VINYL KETONE, STABILIZED |
| 1255* | 14 | NAPHTHA |
| 1256* | 14 | NAPHTHA |
| 1257* | 14 | NATURAL GASOLINE |
| 1259 | 16D | NICKEL CARBONYL |
| 1261 | 17D | NITROMETHANE |
| 1262 | 14 | OCTANES |
| 1263 | 14 | PAINT or PAINT RELATED MATERIAL |
| 1264 | 19 | PARALDEHYDE |
| 1265 | 14 | PENTANES |
| 1266 | 14 | PERFUMERY PRODUCTS |
| 1267 | 14 | PETROLEUM CRUDE OIL |
| 1268 | 14 | PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S. |
| 1270 | 14 | PETROLEUM FUEL (Aust) |
| 1271* | 14 | PETROLEUM SPIRIT |
| 1272 | 14 | PINE OIL |
| 1274 | 16 | n-PROPANOL (PROPYL ALCOHOL, NORMAL) |
| 1275 | 18 | PROPIONALDEHYDE |
| 1276 | 18 | n-PROPYL ACETATE |
| 1277 | 18 | PROPYLAMINE |
| 1278 | 16 | 1-CHLOROPROPANE |
| 1279 | 18 | 1,2-DICHLOROPROPANE |
| 1280 | 14P | PROPYLENE OXIDE |
| 1281 | 18 | PROPYL FORMATES |
| 1282 | 19 | PYRIDINE |
| 1286 | 14 | ROSIN OIL |
| 1287 | 14 | RUBBER SOLUTION |
| 1288 | 14 | SHALE OIL |
| 1289 | 19 | SODIUM METHYLATE SOLUTION |
| 1292 | 19 | TETRAETHYL SILICATE |
| 1293 | 14 | TINCTURES, MEDICINAL |
| 1294 | 16 | TOLUENE |
| 1295 | 27 | TRICHLOROSILANE |
| 1296 | 18 | TRIETHYLAMINE |
| 1297 | 19 | TRIMETHYLAMINE, AQUEOUS SOLUTION |
| 1298 | 25 | TRIMETHYLCHLOROSILANE |
| 1299 | 15 | TURPENTINE |
| 1300 | 14 | TURPENTINE SUBSTITUTE |
| 1301 | 18P | VINYL ACETATE, STABILIZED |
| 1302 | 14P | VINYL ETHYL ETHER, STABILIZED |
| 1303 | 18P | VINYLIDENE CHLORIDE, STABILIZED |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1304 | 14P | VINYL ISOBUTYL ETHER, STABILIZED |
| 1305 | 25D | VINYLTRICHLOROSILANE, STABILIZED |
| 1306 | 18 | WOOD PRESERVATIVES, LIQUID |
| 1307 | 16 | XYLENES |
| 1308 | 14 | ZIRCONIUM SUSPENDED IN A FLAMMABLE LIQUID |
| 1309 | 29 | ALUMINIUM POWDER, COATED |
| 1310 | 52 | AMMONIUM PICRATE, WETTED |
| 1312 | 20 | BORNEOL |
| 1313 | 20 | CALCIUM RESINATE |
| 1314 | 20 | CALCIUM RESINATE, FUSED |
| 1318 | 20 | COBALT RESINATE, PRECIPITATED |
| 1320 | 52 | DINITROPHENOL, WETTED |
| 1321 | 52 | DINITROPHENOLATES, WETTED |
| 1322 | 52 | DINITRORESORCINOL, WETTED |
| 1323 | 29 | FERROCERIUM |
| 1324 | 20 | FILMS, NITROCELLULOSE BASE |
| 1325 | 20 | FLAMMABLE SOLID, ORGANIC, N.O.S. |
| 1326 | 29 | HAFNIUM POWDER, WETTED |
| 1327 | 20 | HAY, STRAW or BHUSA |
| 1328 | 20 | HEXAMETHYLENETETRAMINE |
| 1330 | 20 | MANGANESE RESINATE |
| 1331 | 20 | MATCHES, 'STRIKE ANYWHERE' |
| 1332 | 20 | METALDEHYDE |
| 1333 | 29 | CERIUM |
| 1334 | 20 | NAPHTHALENE, CRUDE or NAPHTHALENE, REFINED |
| 1336 | 52 | NITROGUANIDINE (PICRITE), WETTED |
| 1337 | 52 | NITROSTARCH, WETTED |
| 1338 | 20 | PHOSPHORUS, AMORPHOUS |
| 1339 | 27 | PHOSPHORUS HEPTASULPHIDE |
| 1340 | 27 | PHOSPHORUS PENTASULPHIDE |
| 1341 | 25 | PHOSPHORUS SESQUISULPHIDE |
| 1343 | 38 | PHOSPHORUS TRISULPHIDE |
| 1344 | 52 | TRINITROPHENOL, (PICRIC ACID),WETTED |
| 1345 | 20 | RUBBER SCRAP or RUBBER SHODDY |
| 1346 | 29 | SILICON POWDER, AMORPHOUS |
| 1347 | 52 | SILVER PICRATE, WETTED |
| 1348 | 52 | SODIUM DINITRO-o-CRESOLATE, WETTED |
| 1349 | 52 | SODIUM PICRAMATE, WETTED |
| 1350 | 20 | SULPHUR |
| 1352 | 29 | TITANIUM POWDER, WETTED |
| 1353 | 20 | FIBRES or FABRICS IMPREGNATED WITH WEAKLY NITRATED NITROCELLULOSE, N.O.S. |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1354 | 52 | TRINITROBENZENE, WETTED |
| 1355 | 52 | TRINITROBENZOIC ACID, WETTED |
| 1356 | 52 | TRINITROTOLUENE, (TNT), WETTED |
| 1357 | 52 | UREA NITRATE, WETTED |
| 1358 | 29 | ZIRCONIUM POWDER, WETTED |
| 1359* | 20 | BAGS |
| 1360 | 27 | CALCIUM PHOSPHIDE |
| 1361 | 20 | CARBON |
| 1362 | 20 | CARBON, ACTIVATED |
| 1363 | 20 | COPRA |
| 1364 | 20 | COTTON WASTE, OILY |
| 1365 | 20 | COTTON, WET |
| 1366* | 25 | DIETHYLZINC |
| 1367* | 25 | DIETHYLMAGNESIUM |
| 1368* | 25 | DIMENTHYLMAGNESIUM |
| 1369 | 23 | p-NITROSODIMETHYLANILINE |
| 1370* | 25 | DIMETHYLZINC |
| 1371* | 20 | DRIERS, PAINT or VARNISH, SOLID, N.O.S. |
| 1372 | 23 | FIBRES, ANIMAL or FIBRES, VEGETABLE |
| 1373 | 23 | FIBRES or FABRICS, ANIMAL or VEGETABLE or SYNTHETIC, N.O.S. |
| 1374 | 23 | FISH MEAL (FISH SCRAP), UNSTABILIZED |
| 1375* | 23 | FUEL, PYROPHORIC, N.O.S. |
| 1376 | 25 | IRON OXIDE, SPENT or IRON SPONGE, SPENT |
| 1378 | 29D | METAL CATALYST, WETTED |
| 1379 | 23 | PAPER, UNSATURATED OIL TREATED |
| 1380 | 25 | PENTABORANE |
| 1381 | 24 | PHOSPHORUS, WHITE or YELLOW, DRY or UNDER WATER or IN SOLUTION |
| 1382 | 23 | POTASSIUM SULPHIDE, ANHYDROUS or POTASSIUM SULPHIDE |
| 1383 | 23 | PYROPHORIC METAL, N.O.S. or PYROPHORIC ALLOY, N.O.S. |
| 1384 | 25 | SODIUM DITHIONITE (SODIUM HYDROSULPHITE) |
| 1385 | 23 | SODIUM SULPHIDE, ANHYDROUS or SODIUM SULPHIDE |
| 1386 | 23 | SEED CAKE |
| 1387 | 23 | WOOL WASTE, WET |
| 1389 | 26 | ALKALI METAL AMALGAM, LIQUID |
| 1390 | 27 | ALKALI METAL AMIDES |
| 1391 | 26 | ALKALI METAL DISPERSION or ALKALINE EARTH METAL DISPERSION |
| 1392 | 26 | ALKALINE EARTH METAL AMALGAM, LIQUID |
| 1393 | 26 | ALKALINE EARTH METAL ALLOY, N.O.S. |
| 1394 | 26 | ALUMINIUM CARBIDE |
| 1395 | 27 | ALUMINIUM FERROSILICON POWDER |
| 1396 | 26 | ALUMINIUM POWDER, UNCOATED |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1397 | 27 | ALUMINIUM PHOSPHIDE |
| 1398 | 26 | ALUMINIUM SILICON POWDER, UNCOATED |
| 1399* | 26 | BARIUM ALLOY |
| 1400 | 26 | BARIUM |
| 1401 | 26 | CALCIUM |
| 1402 | 26 | CALCIUM CARBIDE |
| 1403 | 26 | CALCIUM CYANAMIDE |
| 1404 | 26 | CALCIUM HYDRIDE |
| 1405 | 26 | CALCIUM SILICIDE |
| 1406* | 26 | CALCIUM SILICON |
| 1407 | 26 | CAESIUM |
| 1408 | 27 | FERROSILICON |
| 1409 | 26 | METAL HYDRIDES, WATER-REACTIVE, N.O.S. |
| 1410 | 26 | LITHIUM ALUMINIUM HYDRIDE |
| 1411 | 26 | LITHIUM ALUMINIUM HYDRIDE, ETHEREAL |
| 1412* | 27 | LITHIUM AMIDE |
| 1413 | 26 | LITHIUM BOROHYDRIDE |
| 1414 | 26 | LITHIUM HYDRIDE |
| 1415 | 26 | LITHIUM |
| 1417 | 26 | LITHIUM SILICON |
| 1418 | 26 | MAGNESIUM POWDER or MAGNESIUM ALLOYS POWDER |
| 1419 | 27 | MAGNESIUM ALUMINIUM PHOSPHIDE |
| 1420 | 26 | POTASSIUM METAL ALLOYS, LIQUID |
| 1421 | 26 | ALKALI METAL ALLOY, LIQUID, N.O.S. |
| 1422 | 26 | POTASSIUM SODIUM ALLOYS, LIQUID |
| 1423 | 25 | RUBIDIUM |
| 1424* | 26 | SODIUM AMALGAM |
| 1425* | 27 | SODIUM AMIDE |
| 1426 | 26 | SODIUM BOROHYDRIDE |
| 1427 | 26 | SODIUM HYDRIDE |
| 1428 | 26 | SODIUM |
| 1431 | 25 | SODIUM METHYLATE |
| 1432 | 27 | SODIUM PHOSPHIDE |
| 1433 | 27 | STANNIC PHOSPHIDES |
| 1434* | 26 | STRONTIUM ALLOYS, NON-PYROPHORIC |
| 1435 | 26 | ZINC ASHES |
| 1436 | 26 | ZINC POWDER or ZINC DUST |
| 1437 | 29 | ZIRCONIUM HYDRIDE |
| 1438 | 31 | ALUMINIUM NITRATE |
| 1439 | 31 | AMMONIUM DICHROMATE |
| 1442 | 31 | AMMONIUM PERCHLORATE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1444 | 31 | AMMONIUM PERSULPHATE |
| 1445 | 31 | BARIUM CHLORATE, SOLID |
| 1446 | 31 | BARIUM NITRATE |
| 1447 | 31 | BARIUM PERCHLORATE, SOLID |
| 1448 | 31 | BARIUM PERMANGANATE |
| 1449 | 31 | BARIUM PEROXIDE |
| 1450 | 31 | BROMATES, INORGANIC, N.O.S. |
| 1451 | 31 | CAESIUM NITRATE |
| 1452 | 31 | CALCIUM CHLORATE |
| 1453 | 31 | CALCIUM CHLORITE |
| 1454 | 31 | CALCIUM NITRATE |
| 1455 | 31 | CALCIUM PERCHLORATE |
| 1456 | 31 | CALCIUM PERMANGANATE |
| 1457 | 31 | CALCIUM PEROXIDE |
| 1458 | 31 | CHLORATE AND BORATE MIXTURE |
| 1459 | 31 | CHLORATE AND MAGNESIUM CHLORIDE MIXTURE |
| 1461 | 31 | CHLORATES, INORGANIC, N.O.S. |
| 1462 | 31 | CHLORITES, INORGANIC, N.O.S. |
| 1463 | 31 | CHROMIUM TRIOXIDE, ANHYDROUS |
| 1465 | 31 | DIDYMIUM NITRATE |
| 1466 | 31 | FERRIC NITRATE |
| 1467 | 31 | GUANIDINE NITRATE |
| 1469 | 31 | LEAD NITRATE |
| 1470 | 31 | LEAD PERCHLORATE, SOLID |
| 1471 | 31 | LITHIUM HYPOCHLORITE, DRY or LITHIUM HYPOCHLORITE MIXTURE |
| 1472 | 31 | LITHIUM PEROXIDE |
| 1473 | 31 | MAGNESIUM BROMATE |
| 1474 | 31 | MAGNESIUM NITRATE |
| 1475 | 31 | MAGNESIUM PERCHLORATE |
| 1476 | 31 | MAGNESIUM PEROXIDE |
| 1477 | 31 | NITRATES, INORGANIC, N.O.S. |
| 1478* | 31 | SODIUM NITRATE and POTASH |
| 1479 | 31 | OXIDIZING SOLID, N.O.S. |
| 1481 | 31 | PERCHLORATES, INORGANIC, N.O.S. |
| 1482 | 31 | PERMANGANATES, INORGANIC, N.O.S. |
| 1483 | 31 | PEROXIDES, INORGANIC, N.O.S. |
| 1484 | 31 | POTASSIUM BROMATE |
| 1485 | 31 | POTASSIUM CHLORATE |
| 1486 | 31 | POTASSIUM NITRATE |
| 1487 | 31 | POTASSIUM NITRATE AND SODIUM NITRITE MIXTURE |
| 1488 | 31 | POTASSIUM NITRITE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1489 | 31 | POTASSIUM PERCHLORATE |
| 1490 | 31 | POTASSIUM PERMANGANATE |
| 1491 | 28 | POTASSIUM PEROXIDE |
| 1492 | 31 | POTASSIUM PERSULPHATE |
| 1493 | 31 | SILVER NITRATE |
| 1494 | 31 | SODIUM BROMATE |
| 1495 | 31 | SODIUM CHLORATE |
| 1496 | 31 | SODIUM CHLORITE |
| 1498 | 31 | SODIUM NITRATE |
| 1499 | 31 | SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE |
| 1500 | 31 | SODIUM NITRITE |
| 1502 | 31 | SODIUM PERCHLORATE |
| 1503 | 31 | SODIUM PERMANGANATE |
| 1504 | 28 | SODIUM PEROXIDE |
| 1505 | 31 | SODIUM PERSULPHATE |
| 1506 | 31 | STRONTIUM CHLORATE |
| 1507 | 31 | STRONTIUM NITRATE |
| 1508 | 31 | STRONTIUM PERCHLORATE |
| 1509 | 31 | STRONTIUM PEROXIDE |
| 1510 | 31 | TETRANITROMETHANE |
| 1511 | 31 | UREA HYDROGEN PEROXIDE |
| 1512 | 31 | ZINC AMMONIUM NITRITE |
| 1513 | 31 | ZINC CHLORATE |
| 1514 | 31 | ZINC NITRATE |
| 1515 | 31 | ZINC PERMANGANATE |
| 1516 | 31 | ZINC PEROXIDE |
| 1517 | 52 | ZIRCONIUM PICRAMATE, WETTED |
| 1541 | 35 | ACETONE CYANOHYDRIN, STABILIZED |
| 1544 | 34 | ALKALOIDS, SOLID, N.O.S. or ALKALOID SALTS, SOLID, N.O.S. |
| 1545 | 38 | ALLYL ISOTHIOCYANATE, STABILIZED |
| 1546 | 34 | AMMONIUM ARSENATE |
| 1547 | 36 | ANILINE |
| 1548 | 36 | ANILINE HYDROCHLORIDE |
| 1549 | 40 | ANTIMONY COMPOUND, INORGANIC, SOLID, N.O.S. |
| 1550 | 34 | ANTIMONY LACTATE |
| 1551 | 34 | ANTIMONY POTASSIUM TARTRATE |
| 1553 | 37 | ARSENIC ACID, LIQUID |
| 1554 | 37 | ARSENIC ACID, SOLID |
| 1555 | 34 | ARSENIC BROMIDE |
| 1556 | 35 | ARSENIC COMPOUND, LIQUID, N.O.S. |
| 1557 | 35 | ARSENIC COMPOUND, SOLID, N.O.S. |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1558 | 35 | ARSENIC |
| 1559 | 34 | ARSENIC PENTOXIDE |
| 1560 | 40 | ARSENIC TRICHLORIDE |
| 1561 | 34 | ARSENIC TRIOXIDE |
| 1562 | 35 | ARSENICAL DUST |
| 1564 | 37 | BARIUM COMPOUND, N.O.S. |
| 1565 | 40 | BARIUM CYANIDE |
| 1566 | 37 | BERYLLIUM COMPOUND, N.O.S. |
| 1567 | 35 | BERYLLIUM POWDER |
| 1568* | 34 | BORDEAUX ARSENITES |
| 1569 | 18 | BROMOACETONE |
| 1570 | 35 | BRUCINE |
| 1571 | 52 | BARIUM AZIDE, WETTED |
| 1572 | 34 | CACODYLIC ACID |
| 1573 | 34 | CALCIUM ARSENATE |
| 1574 | 34 | CALCIUM ARSENATE AND CALCIUM ARSENITE MIXTURE, SOLID |
| 1575 | 40 | CALCIUM CYANIDE |
| 1577 | 36D | CHLORODINITROBENZENES, LIQUID |
| 1578 | 35D | CHLORONITROBENZENES, SOLID |
| 1579 | 36 | 4-CHLORO-o-TOLUIDINE HYDROCHLORIDE, SOLID |
| 1580 | 37D | CHLOROPICRIN |
| 1581 | 07 | CHLOROPICRIN AND METHYL BROMIDE MIXTURE |
| 1582 | 05 | CHLOROPICRIN AND METHYL CHLORIDE MIXTURE |
| 1583 | 37 | CHLOROPICRIN MIXTURE, N.O.S. |
| 1584* | 34 | COCCULUS, SOLID |
| 1585 | 34 | COPPER ACETOARSENITE |
| 1586 | 34 | COPPER ARSENITE |
| 1587 | 34 | COPPER CYANIDE |
| 1588 | 40 | CYANIDES, INORGANIC, SOLID, N.O.S. |
| 1589 | 07 | CYANOGEN CHLORIDE, STABILIZED |
| 1590 | 36 | DICHLOROANILINES, LIQUID |
| 1591 | 35 | o-DICHLOROBENZENE |
| 1592* | 35 | (1,4)para-DICHLOROBENZENE |
| 1593 | 37 | DICHLOROMETHANE |
| 1594 | 36 | DIETHYL SULPHATE |
| 1595 | 39 | DIMETHYL SULPHATE |
| 1596 | 36D | DINITROANILINES |
| 1597 | 35D | DINITROBENZENES, LIQUID |
| 1598 | 36D | DINITRO-o-CRESOL |
| 1599 | 37 | DINITROPHENOL SOLUTION |
| 1600 | 35D | DINITROTOLUENES, MOLTEN |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1601 | 34 | DISINFECTANT, SOLID, TOXIC, N.O.S. |
| 1602 | 34 | DYE, LIQUID, TOXIC, N.O.S. or DYE INTERMEDIATE, LIQUID, TOXIC, N.O.S. |
| 1603 | 38 | ETHYL BROMOACETATE |
| 1604 | 19 | ETHYLENEDIAMINE |
| 1605 | 37 | ETHYLENE DIBROMIDE |
| 1606 | 34 | FERRIC ARSENATE |
| 1607 | 34 | FERRIC ARSENITE |
| 1608 | 34 | FERROUS ARSENATE |
| 1610* | 19 | HALOGENATED IRRITATING LIQUID, N.O.S. |
| 1611 | 35 | HEXAETHYL TETRAPHOSPHATE |
| 1612 | 07 | HEXAETHYL TETRAPHOSPHATE AND COMPRESSED GAS MIXTURE |
| 1613 | 37D | HYDROCYANIC ACID, AQUEOUS SOLUTION (HYDROGEN CYANIDE, AQUEOUS SOLUTION) |
| 1614 | 18D | HYDROGEN CYANIDE, STABILIZED |
| 1616 | 34 | LEAD ACETATE |
| 1617 | 34 | LEAD ARSENATES |
| 1618 | 34 | LEAD ARSENITES |
| 1620 | 34 | LEAD CYANIDE |
| 1621 | 34 | LONDON PURPLE |
| 1622 | 34 | MAGNESIUM ARSENATE |
| 1623 | 34 | MERCURIC ARSENATE |
| 1624 | 37 | MERCURIC CHLORIDE |
| 1625 | 34 | MERCURIC NITRATE |
| 1626 | 40 | MERCURIC POTASSIUM CYANIDE |
| 1627 | 34 | MERCUROUS NITRATE |
| 1628* | 34 | MERCUROUS SULPHATE |
| 1629 | 34 | MERCURY ACETATE |
| 1630 | 34 | MERCURY AMMONIUM CHLORIDE |
| 1631 | 37 | MERCURY BENZOATE |
| 1633* | 36 | MERCURY BISULPHATE |
| 1634 | 37 | MERCURY BROMIDES |
| 1636 | 37 | MERCURY CYANIDE |
| 1637 | 34 | MERCURY GLUCONATE |
| 1638 | 34 | MERCURY IODIDE |
| 1639 | 34 | MERCURY NUCLEATE |
| 1640 | 34 | MERCURY OLEATE |
| 1641 | 34 | MERCURY OXIDE |
| 1642 | 34 | MERCURY OXYCYANIDE, DESENSITIZED |
| 1643 | 34 | MERCURY POTASSIUM IODIDE |
| 1644 | 34 | MERCURY SALICYLATE |
| 1645 | 34 | MERCURY SULPHATE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1646 | 34 | MERCURY THIOCYANATE |
| 1647 | 34 | METHYL BROMIDE AND ETHYLENE DIBROMIDE MIXTURE, LIQUID |
| 1648 | 17 | ACETONITRILE |
| 1649 | 16D | MOTOR FUEL ANTI-KNOCK MIXTURE |
| 1650 | 36 | beta-NAPHTHYLAMINE, SOLID |
| 1651 | 36 | NAPHTHYLTHIOUREA |
| 1652 | 36 | NAPHTHYLUREA |
| 1653 | 34 | NICKEL CYANIDE |
| 1654 | 34 | NICOTINE |
| 1655 | 34 | NICOTINE COMPOUND, SOLID, N.O.S. or NICOTINE PREPARATION, SOLID, N.O.S. |
| 1656 | 34 | NICOTINE HYDROCHLORIDE LIQUID or NICOTINE HYDROCHLORIDE SOLUTION |
| 1657 | 34 | NICOTINE SALICYLATE |
| 1658 | 34 | NICOTINE SULPHATE SOLUTION |
| 1659 | 34 | NICOTINE TARTRATE |
| 1660 | 12 | NITRIC OXIDE, COMPRESSED |
| 1661 | 36 | NITROANILINES (o-, m-, p-) |
| 1662 | 35 | NITROBENZENE |
| 1663 | 36 | NITROPHENOLS (o-, m-, p-) |
| 1664 | 35 | NITROTOLUENES , LIQUID (o-, m-, p-) |
| 1665 | 35 | NITROXYLENES, LIQUID (o-, m-, p-) |
| 1669 | 34 | PENTACHLOROETHANE |
| 1670 | 40 | PERCHLOROMETHYL MERCAPTAN |
| 1671 | 36 | PHENOL, SOLID |
| 1672 | 34 | PHENYLCARBYLAMINE CHLORIDE |
| 1673 | 36 | PHENYLENEDIAMINES (o-, m-, p-) |
| 1674 | 34 | PHENYLMERCURIC ACETATE |
| 1677 | 34 | POTASSIUM ARSENATE |
| 1678 | 37 | POTASSIUM ARSENITE |
| 1679 | 40 | POTASSIUM CUPROCYANIDE |
| 1680 | 34 | POTASSIUM CYANIDE, SOLID |
| 1681* | 34 | RODENTICIDES, N.O.S. |
| 1683 | 34 | SILVER ARSENITE |
| 1684 | 34 | SILVER CYANIDE |
| 1685 | 34 | SODIUM ARSENATE |
| 1686 | 34 | SODIUM ARSENITE, AQUEOUS SOLUTION |
| 1687 | 39 | SODIUM AZIDE |
| 1688 | 35 | SODIUM CACODYLATE |
| 1689 | 40 | SODIUM CYANIDE, SOLID |
| 1690 | 37 | SODIUM FLUORIDE, SOLID |
| 1691 | 34 | STRONTIUM ARSENITE |
| 1692 | 34 | STRYCHNINE or STRYCHNINE SALTS |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1693 | 36 | TEAR GAS SUBSTANCE, LIQUID, N.O.S. |
| 1694 | 36 | BROMOBENZYL CYANIDES, LIQUID |
| 1695 | 19D | CHLOROACETONE, STABILIZED |
| 1697 | 36 | CHLOROACETO-PHENONE, SOLID |
| 1698 | 37 | DIPHENYLAMINE CHLOROARSINE |
| 1699 | 34 | DIPHENYLCHLOROARSINE, LIQUID |
| 1700 | 36 | TEAR GAS CANDLES |
| 1701 | 35 | XYLYL BROMIDE, LIQUID |
| 1702 | 34 | 1,1,2,2-TETRACHLOROETHANE |
| 1703* | 07 | TETRAETHYL DITHIOPYROPHOSPHATE AND GASES, INCLUDING SOLUTIONS or MIXTURES |
| 1704 | 36 | TETRAETHYL DITHIOPYROPHOSPHATE |
| 1705* | 07 | TETRAETHYL PYROPHOSPHATE AND GAS MIXTURES, COMPRESSED |
| 1707 | 34 | THALLIUM COMPOUND, N.O.S. |
| 1708 | 36 | TOLUIDINES, LIQUID |
| 1709 | 36 | 2,4-TOLUYLENE-DIAMINE, SOLID |
| 1710 | 37 | TRICHLOROETHYLENE |
| 1711 | 37 | XYLIDINES, LIQUID |
| 1712 | 34 | ZINC ARSENATE, ZINC ARSENITE or ZINC ARSENATE AND ZINC ARSENITE MIXTURE |
| 1713 | 34 | ZINC CYANIDE |
| 1714 | 27 | ZINC PHOSPHIDE |
| 1715 | 38 | ACETIC ANHYDRIDE |
| 1716 | 39 | ACETYL BROMIDE |
| 1717 | 38 | ACETYL CHLORIDE |
| 1718 | 36 | BUTYL ACID PHOSPHATE |
| 1719 | 37 | CAUSTIC ALKALI LIQUID, N.O.S. |
| 1722 | 38 | ALLYL CHLOROFORMATE |
| 1723 | 19 | ALLYL IODIDE |
| 1724 | 25D | ALLYLTRICHLOROSILANE, STABILIZED |
| 1725 | 40 | ALUMINIUM BROMIDE, ANHYDROUS |
| 1726 | 40 | ALUMINIUM CHLORIDE, ANHYDROUS |
| 1727 | 37 | AMMONIUM HYDROGEN DIFLUORIDE, SOLID |
| 1728 | 25 | AMYLTRICHLOROSILANE |
| 1729 | 39 | ANISOYL CHLORIDE |
| 1730 | 40 | ANTIMONY PENTACHLORIDE, LIQUID |
| 1731 | 40 | ANTIMONY PENTACHLORIDE SOLUTION |
| 1732 | 40 | ANTIMONY PENTAFLUORIDE |
| 1733 | 40 | ANTIMONY TRICHLORIDE |
| 1736 | 39 | BENZOYL CHLORIDE |
| 1737 | 39 | BENZYL BROMIDE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1738 | 39 | BENZYL CHLORIDE |
| 1739 | 39 | BENZYL CHLOROFORMATE |
| 1740 | 37 | HYDROGEN DIFLUORIDES, SOLID, N.O.S. |
| 1741 | 07 | BORON TRICHLORIDE |
| 1742 | 38 | BORON TRIFLUORIDE ACETIC ACID COMPLEX, LIQUID |
| 1743 | 39 | BORON TRIFLUORIDE PROPIONIC ACID COMPLEX, LIQUID |
| 1744 | 37 | BROMINE or BROMINE SOLUTION |
| 1745 | 28 | BROMINE PENTAFLUORIDE |
| 1746 | 28 | BROMINE TRIFLUORIDE |
| 1747 | 25 | BUTYLTRICHLOROSILANE |
| 1748 | 31 | CALCIUM HYPOCHLORITE, DRY or CALCIUM HYPOCHLORITE MIXTURE, DRY |
| 1749 | 12 | CHLORINE TRIFLUORIDE |
| 1750 | 36 | CHLOROACETIC ACID SOLUTION |
| 1751 | 36 | CHLOROACETIC ACID, SOLID |
| 1752 | 39 | CHLOROACETYL CHLORIDE |
| 1753 | 39 | CHLOROPHENYLTRICHLOROSILANE |
| 1754 | 40 | CHLOROSULPHONIC ACID |
| 1755 | 37 | CHROMIC ACID SOLUTION |
| 1756 | 37 | CHROMIC FLUORIDE, SOLID |
| 1757 | 37 | CHROMIC FLUORIDE SOLUTION |
| 1758 | 40 | CHROMIUM OXYCHLORIDE |
| 1759 | 37 | CORROSIVE SOLID, N.O.S. |
| 1760 | 37 | CORROSIVE LIQUID, N.O.S. |
| 1761 | 37 | CUPRIETHYLENEDIAMINE SOLUTION |
| 1762 | 39 | CYCLOHEXENYLTRICHLOROSILANE |
| 1763 | 39 | CYCLOHEXYLTRICHLOROSILANE |
| 1764 | 36 | DICHLOROACETIC ACID |
| 1765 | 39 | DICHLOROACETYL CHLORIDE |
| 1766 | 39 | DICHLOROPHENYLTRICHLOROSILANE |
| 1767 | 39 | DIETHYLDICHLOROSILANE |
| 1768 | 37 | DIFLUOROPHOSPHORIC ACID, ANHYDROUS |
| 1769 | 39 | DIPHENYLDICHLOROSILANE |
| 1770 | 36 | DIPHENYLMETHYL BROMIDE |
| 1771 | 39 | DODECYLTRICHLOROSILANE |
| 1773 | 40 | FERRIC CHLORIDE, ANHYDROUS |
| 1774 | 37 | FIRE EXTINGUISHER CHARGES |
| 1775 | 37 | FLUOROBORIC ACID |
| 1776 | 37 | FLUOROPHOSPHORIC ACID, ANHYDROUS |
| 1777 | 40 | FLUOROSULPHONIC ACID |
| 1778 | 37 | FLUOROSILICIC ACID |
| 1779 | 36 | FORMIC ACID |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1780 | 39 | FUMARYL CHLORIDE |
| 1781 | 39 | HEXADECYLTRICHLOROSILANE |
| 1782 | 37 | HEXAFLUOROPHOSPHORIC ACID |
| 1783 | 36 | HEXAMETHYLENEDIAMINE SOLUTION |
| 1784 | 39 | HEXYLTRICHLOROSILANE |
| 1786 | 40 | HYDROFLUORIC ACID AND SULPHURIC ACID MIXTURE |
| 1787 | 37 | HYDRIODIC ACID |
| 1788 | 37 | HYDROBROMIC ACID |
| 1789 | 40 | HYDROCHLORIC ACID |
| 1790 | 40 | HYDROFLUORIC ACID |
| 1791 | 37 | HYPOCHLORITE SOLUTION |
| 1792 | 40 | IODINE MONOCHLORIDE |
| 1793 | 36 | ISOPROPYL ACID PHOSPHATE |
| 1794 | 37 | LEAD SULPHATE |
| 1796 | 40 | NITRATING ACID MIXTURE |
| 1798 | 40 | NITROHYDROCHLORIC ACID |
| 1799 | 39 | NONYLTRICHLOROSILANE |
| 1800 | 39 | OCTADECYLTRICHLOROSILANE |
| 1801 | 39 | OCTYLTRICHLOROSILANE |
| 1802 | 31 | PERCHLORIC ACID |
| 1803 | 36 | PHENOLSULPHONIC ACID, LIQUID |
| 1804 | 39 | PHENYLTRICHLOROSILANE |
| 1805 | 37 | PHOSPHORIC ACID, SOLUTION |
| 1806 | 40 | PHOSPHORUS PENTACHLORIDE |
| 1807 | 40 | PHOSPHORUS PENTOXIDE |
| 1808 | 40 | PHOSPHORUS TRIBROMIDE |
| 1809 | 40 | PHOSPHORUS TRICHLORIDE |
| 1810 | 40 | PHOSPHORUS OXYCHLORIDE |
| 1811 | 37 | POTASSIUM HYDROGEN DIFLUORIDE, SOLID |
| 1812 | 37 | POTASSIUM FLUORIDE, SOLID |
| 1813 | 37 | POTASSIUM HYDROXIDE, SOLID |
| 1814 | 37 | POTASSIUM HYDROXIDE SOLUTION |
| 1815 | 38 | PROPIONYL CHLORIDE |
| 1816 | 25 | PROPYLTRICHLOROSILANE |
| 1817 | 40 | PYROSULPHURYL CHLORIDE |
| 1818 | 40 | SILICON TETRACHLORIDE |
| 1819 | 37 | SODIUM ALUMINATE SOLUTION |
| 1821* | 37 | SODIUM HYDROXIDE, SULPHATE |
| 1823 | 37 | SODIUM HYDROXIDE, SOLID |
| 1824 | 37 | SODIUM HYDROXIDE SOLUTION |
| 1825 | 40 | SODIUM MONOXIDE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1826 | 40 | NITRATING ACID MIXTURE, SPENT |
| 1827 | 40 | STANNIC CHLORIDE, ANHYDROUS |
| 1828 | 39 | SULPHUR CHLORIDES |
| 1829 | 40 | SULPHUR TRIOXIDE, STABILIZED |
| 1830 | 40 | SULPHURIC ACID |
| 1831 | 40 | SULPHURIC ACID, FUMING |
| 1832 | 40 | SULPHURIC ACID, SPENT |
| 1833 | 37 | SULPHUROUS ACID |
| 1834 | 40 | SULPHURYL CHLORIDE |
| 1835 | 36 | TETRAMETHYLAMMONIUM HYDROXIDE |
| 1836 | 40 | THIONYL CHLORIDE |
| 1837 | 40 | THIOPHOSPHORYL CHLORIDE |
| 1838 | 40 | TITANIUM TETRACHLORIDE |
| 1839 | 36 | TRICHLOROACETIC ACID |
| 1840 | 37 | ZINC CHLORIDE SOLUTION |
| 1841 | 35 | ACETALDEHYDE AMMONIA |
| 1843 | 31 | AMMONIUM DINITRO-o-CRESOLATE, SOLID |
| 1845 | 09 | CARBON DIOXIDE, SOLID (DRY ICE) |
| 1846 | 34 | CARBON TETRACHLORIDE |
| 1847 | 38 | POTASSIUM SULPHIDE, HYDRATED |
| 1848 | 19 | PROPIONIC ACID |
| 1849 | 38 | SODIUM SULPHIDE, HYDRATED |
| 1850* | 19 | ERADICATORS, PAINT or GREASE, LIQUID |
| 1851 | 34 | MEDICINE, LIQUID, TOXIC, N.O.S. |
| 1854 | 25 | BARIUM ALLOYS, PYROPHORIC |
| 1855 | 25 | CALCIUM, PYROPHORIC or CALCIUM ALLOYS, PYROPHORIC |
| 1856 | 23 | RAGS, OILY |
| 1857 | 23 | TEXTILE WASTE, WET |
| 1858 | 06P | HEXAFLUOROPROPYLENE (REFRIGERANT GAS R 1216) |
| 1859 | 07 | SILICON TETRAFLUORIDE |
| 1860 | 04P | VINYL FLUORIDE, STABILIZED |
| 1862 | 18 | ETHYL CROTONATE |
| 1863 | 14 | FUEL, AVIATION, TURBINE ENGINE |
| 1864* | 14 | GAS DRIPS, HYDROCARBON |
| 1865 | 16 | n-PROPYL NITRATE |
| 1866 | 14 | RESIN SOLUTION |
| 1867* | 20 | CIGARETTES |
| 1868 | 23 | DECABORANE |
| 1869 | 26 | MAGNESIUM or MAGNESIUM ALLOYS |
| 1870 | 26 | POTASSIUM BOROHYDRIDE |
| 1871 | 29 | TITANIUM HYDRIDE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1872 | 31 | LEAD DIOXIDE |
| 1873 | 31 | PERCHLORIC ACID |
| 1884 | 40 | BARIUM OXIDE |
| 1885 | 36 | BENZIDINE |
| 1886 | 39 | BENZYLIDENE CHLORIDE |
| 1887 | 37 | BROMOCHLOROMETHANE |
| 1888 | 34 | CHLOROFORM |
| 1889 | 40 | CYANOGEN BROMIDE |
| 1891 | 17 | ETHYL BROMIDE |
| 1892 | 34 | ETHYLDICHLOROARSINE |
| 1894 | 34 | PHENYLMERCURIC HYDROXIDE |
| 1895 | 34 | PHENYLMERCURIC NITRATE |
| 1896* | 16 | RESIN, SOLUTIONS, TOXIC |
| 1897 | 37 | TETRACHLOROETHYLENE |
| 1898 | 39 | ACETYL IODIDE |
| 1902 | 36 | DIISOOCTYL ACID PHOSPHATE |
| 1903 | 36 | DISINFECTANT, LIQUID, CORROSIVE, N.O.S. |
| 1905 | 37 | SELENIC ACID |
| 1906 | 36 | SLUDGE ACID |
| 1907 | 37 | SODA LIME |
| 1908 | 37D | CHLORITE SOLUTION |
| 1910 | 40 | CALCIUM OXIDE |
| 1911 | 13 | DIBORANE |
| 1912 | 05 | METHYL CHLORIDE AND METHYLENE CHLORIDE MIXTURE |
| 1913 | 08 | NEON, REFRIGERATED LIQUID |
| 1914 | 19 | BUTYL PROPIONATES |
| 1915 | 15 | CYCLOHEXANONE |
| 1916 | 35 | 2,2'-DICHLORODIETHYL ETHER |
| 1917 | 18P | ETHYL ACRYLATE, STABILIZED |
| 1918 | 19 | ISOPROPYLBENZENE |
| 1919 | 18P | METHYL ACRYLATE, STABILIZED |
| 1920 | 15 | NONANES |
| 1921 | 19P | PROPYLENEIMINE, STABILIZED |
| 1922 | 18 | PYRROLIDINE |
| 1923 | 25 | CALCIUM DITHIONITE (CALCIUM HYDROSULPHITE) |
| 1924* | 25 | ETHYLALUMINIUM DICHLORIDE |
| 1925* | 25 | ETHYLALUMINIUM SESQUICHLORIDE |
| 1926* | 25 | METHYL ALUMINIUM SESQUIBROMIDE |
| 1927* | 25 | METHYL ALUMINIUM SESQUICHLORIDE |
| 1928 | 25 | METHYL MAGNESIUM BROMIDE IN ETHYL ETHER |
| 1929 | 25 | POTASSIUM DITHIONITE (POTASSIUM HYDROSULPHITE) |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1930* | 25 | TRI-iso-BUTYL ALUMINIUM |
| 1931 | 25 | ZINC DITHIONITE (ZINC HYDROSULPHITE) |
| 1932 | 25 | ZIRCONIUM SCRAP |
| 1935 | 40 | CYANIDE SOLUTION, N.O.S. |
| 1938 | 39 | BROMOACETIC ACID, SOLUTION |
| 1939 | 40 | PHOSPHORUS OXYBROMIDE |
| 1940 | 36 | THIOGLYCOLIC ACID |
| 1941 | 37 | DIBROMODIFLUOROMETHANE |
| 1942 | 50 | AMMONIUM NITRATE |
| 1944 | 20 | MATCHES, SAFETY |
| 1945 | 20 | MATCHES, WAX 'VESTA' |
| 1950 | 49 | AEROSOLS |
| 1951 | 08 | ARGON, REFRIGERATED LIQUID |
| 1952 | 06 | ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE |
| 1953 | 05 | COMPRESSED GAS, TOXIC, FLAMMABLE, N.O.S. |
| 1954 | 04 | COMPRESSED GAS, FLAMMABLE, N.O.S. |
| 1955 | 07 | COMPRESSED GAS, TOXIC, N.O.S. |
| 1956 | 06 | COMPRESSED GAS, N.O.S. |
| 1957 | 04 | DEUTERIUM, COMPRESSED |
| 1958 | 07 | 1,2-DICHLORO-1,1,2,2-TETRAFLUOROETHANE (REFRIGERANT GAS R 114) |
| 1959 | 04P | 1,1-DIFLUOROETHYLENE (REFRIGERANT GAS R 1132a) |
| 1960* | 04 | ENGINE STARTING FLUID |
| 1961 | 04 | ETHANE, REFRIGERATED LIQUID |
| 1962 | 04P | ETHYLENE |
| 1963 | 08 | HELIUM, REFRIGERATED LIQUID |
| 1964 | 04 | HYDROCARBON GAS MIXTURE, COMPRESSED, N.O.S. |
| 1965 | 04 | HYDROCARBON GAS MIXTURE, LIQUEFIED, N.O.S. |
| 1966 | 04 | HYDROGEN, REFRIGERATED LIQUID |
| 1967 | 07 | INSECTICIDE GAS, TOXIC, N.O.S. |
| 1968 | 06 | INSECTICIDE GAS, N.O.S. |
| 1969 | 04 | ISOBUTANE |
| 1970 | 08 | KRYPTON, REFRIGERATED LIQUID |
| 1971 | 04 | METHANE, COMPRESSED or NATURAL GAS, COMPRESSED |
| 1972 | 04 | METHANE, REFRIGERATED LIQUID or NATURAL GAS, REFRIGERATED LIQUID |
| 1973 | 06 | CHLORODIFLUOROMETHANE AND CHLOROPENTAFLUOROETHANE MIXTURE (REFRIGERANT GAS R 502) |
| 1974 | 06 | CHLORODIFLUOROBROMOMETHANE (REFRIGERANT GAS R 12B1) |
| 1975 | 12 | NITRIC OXIDE AND DINITROGEN TETROXIDE MIXTURE (NITRIC OXIDE AND NITROGEN DIOXIDE MIXTURE) |
| 1976 | 06 | OCTAFLUOROCYCLOBUTANE (REFRIGERANT GAS RC 318) |
| 1977 | 08 | NITROGEN, REFRIGERATED LIQUID |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 1978 | 04 | PROPANE |
| 1979* | 08 | RARE GASES MIXTURE, COMPRESSED |
| 1980* | 10 | RARE GASES AND OXYGEN MIXTURE, COMPRESSED |
| 1981* | 08 | RARE GASES AND NITROGEN MIXTURE, COMPRESSED |
| 1982 | 06 | TETRAFLUOROMETHANE, COMPRESSED (REFRIGERANT GAS R 14) |
| 1983 | 06 | 1-CHLORO-2,2,2-TRIFLUOROETHANE (REFRIGERANT GAS R 133a) |
| 1984 | 06 | TRIFLUOROMETHANE (REFRIGERANT GAS R 23) |
| 1986 | 16 | ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. |
| 1987 | 14 | ALCOHOLS, N.O.S. |
| 1988 | 16 | ALDEHYDES, FLAMMABLE, TOXIC, N.O.S. |
| 1989 | 18 | ALDEHYDES, N.O.S. |
| 1990 | 18 | BENZALDEHYDE |
| 1991 | 17P | CHLOROPRENE, STABILIZED |
| 1992 | 16 | FLAMMABLE LIQUID, TOXIC, N.O.S. |
| 1993 | 14 | FLAMMABLE LIQUID, N.O.S. |
| 1994 | 23D | IRON PENTACARBONYL |
| 1999 | 16 | TARS, LIQUID |
| 2000 | 52 | CELLULOID |
| 2001 | 20 | COBALT NAPHTHENATES, POWDER |
| 2002 | 23 | CELLULOID, SCRAP |
| 2003* | 25 | METAL ALKYLS, WATER-REACTIVE, N.O.S. or METAL ARYLS, WATER-REACTIVE, N.O.S. |
| 2004 | 25 | MAGNESIUM DIAMIDE |
| 2005* | 25 | MAGNESIUM DIPHENYL |
| 2006 | 23 | PLASTICS, NITROCELLULOSE-BASED, SELF-HEATING, N.O.S. |
| 2008 | 25 | ZIRCONIUM POWDER, DRY |
| 2009 | 25 | ZIRCONIUM, DRY |
| 2010 | 26 | MAGNESIUM HYDRIDE |
| 2011 | 27 | MAGNESIUM PHOSPHIDE |
| 2012 | 27 | POTASSIUM PHOSPHIDE |
| 2013 | 27 | STRONTIUM PHOSPHIDE |
| 2014 | 31 | HYDROGEN PEROXIDE, AQUEOUS SOLUTION |
| 2015 | 31 | HYDROGEN PEROXIDE, STABILIZED or HYDROGEN PEROXIDE, AQUEOUS SOLUTION, STABILIZED |
| 2016 | 37 | AMMUNITION, TOXIC, NON-EXPLOSIVE |
| 2017 | 36 | AMMUNITION, TEAR-PRODUCING, NON-EXPLOSIVE |
| 2018 | 37 | CHLOROANILINES, SOLID |
| 2019 | 37 | CHLOROANILINES, LIQUID |
| 2020 | 36 | CHLOROPHENOLS, SOLID |
| 2021 | 36 | CHLOROPHENOLS, LIQUID |
| 2022 | 36 | CRESYLIC ACID |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2023 | 18P | EPICHLOROHYDRIN |
| 2024 | 34 | MERCURY COMPOUND, LIQUID, N.O.S. |
| 2025 | 34 | MERCURY COMPOUND, SOLID, N.O.S. |
| 2026 | 34 | PHENYLMERCURIC COMPOUND, N.O.S. |
| 2027 | 34 | SODIUM ARSENITE, SOLID |
| 2028 | 36 | BOMBS, SMOKE, NON-EXPLOSIVE |
| 2029 | 18D | HYDRAZINE, ANHYDROUS |
| 2030 | 19D | HYDRAZINE AQUEOUS SOLUTION |
| 2031 | 40 | NITRIC ACID |
| 2032 | 40 | NITRIC ACID, RED FUMING |
| 2033 | 37 | POTASSIUM MONOXIDE |
| 2034 | 04 | HYDROGEN AND METHANE MIXTURE, COMPRESSED |
| 2035 | 06 | 1,1,1-TRIFLUOROETHANE (REFRIGERANT GAS R 143a) |
| 2036 | 08 | XENON |
| 2037 | 04 | RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES) |
| 2038 | 35D | DINITROTOLUENES, LIQUID |
| 2044 | 04 | 2,2-DIMETHYLPROPANE |
| 2045 | 18 | ISOBUTYRALDEHYDE (ISOBUTYL ALDEHYDE) |
| 2046 | 19 | CYMENES |
| 2047 | 19 | DICHLOROPROPENES |
| 2048 | 19D | DICYCLOPENTADIENE |
| 2049 | 17 | DIETHYLBENZENE |
| 2050 | 14 | DIISOBUTYLENE, ISOMERIC COMPOUNDS |
| 2051 | 18 | 2-DIMETHYLAMINOETHANOL |
| 2052 | 14 | DIPENTENE |
| 2053 | 17 | METHYL ISOBUTYL CARBINOL |
| 2054 | 19 | MORPHOLINE |
| 2055 | 19P | STYRENE MONOMER, STABILIZED |
| 2056 | 14D | TETRAHYDROFURAN |
| 2057 | 14 | TRIPROPYLENE |
| 2058 | 18 | VALERALDEHYDE |
| 2059 | 52 | NITROCELLULOSE SOLUTION, FLAMMABLE |
| 2060* | 15D | NITROCELLULOSE SOLUTION, FLAMMABLE |
| 2067 | 50 | AMMONIUM NITRATE BASED FERTILIZER |
| 2068* | 50 | AMMONIUM NITRATE BASED FERTILIZER |
| 2069* | 50 | AMMONIUM NITRATE FERTILIZERS |
| 2070* | 50 | AMMONIUM NITRATE FERTILIZERS |
| 2071 | 50 | AMMONIUM NITRATE BASED FERTILIZER |
| 2072* | 50 | AMMONIUM NITRATE FERTILIZER, N.O.S. |
| 2073 | 36 | AMMONIA SOLUTION |
| 2074 | 36P | ACRYLAMIDE, SOLID |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2075 | 36 | CHLORAL, ANHYDROUS, STABILIZED |
| 2076 | 36 | CRESOLS, LIQUID |
| 2077 | 36 | alpha-NAPHTHYLAMINE |
| 2078 | 39 | TOLUENE DIISOCYANATE |
| 2079 | 36 | DIETHYLENETRIAMINE |
| 2080* | 32 | ACETYL ACETONE PEROXIDE |
| 2081* | 32 | ACETYL BENZYL PEROXIDE |
| 2082* | 33 | ACETYL CYCLOHEXANE SULPHONYL PEROXIDE |
| 2083* | 33 | ACETYL CYCLOHEXANE SULPHONYL PEROXIDE |
| 2084* | 33 | ACETYL PEROXIDE PHLEGMATIZED |
| 2085* | 32 | BENZOYL PEROXIDE |
| 2086* | 32 | (DI)BENZOYL PEROXIDE |
| 2087* | 32 | BENZOYL PEROXIDE |
| 2088* | 32 | BENZOYL PEROXIDE |
| 2089* | 32 | BENZOYLPEROXIDE |
| 2090* | 32 | BENZOYL PEROXIDE |
| 2091* | 32 | tert-BUTYL CUMYL PEROXIDE |
| 2092* | 32 | tert-BUTYL HYDROPEROXIDE |
| 2093* | 32 | tert-BUTYL HYDROPEROXIDE |
| 2094* | 32 | tert-BUTYL HYDROPEROXIDE |
| 2095* | 32 | tert-BUTYL PEROXYACETATE |
| 2096* | 32 | tert-BUTYL PEROXYACETATE |
| 2097* | 32 | tert-BUTYL PEROXYBENZOATE |
| 2098* | 32 | tert-BUTYL PEROXYBENZOATE |
| 2099* | 32 | tert-BUTYL MONOPEROXYMALEATE |
| 2100* | 32 | tert-BUTYL MONOPEROXYMALEATE |
| 2101* | 32 | tert-BUTYL MONOPEROXYMALEATE |
| 2102* | 32 | tert-BUTYL PEROXIDE |
| 2103* | 32 | tert-BUTYL PEROXY ISO-PROPYLCARBONATE |
| 2104* | 32 | tert-BUTYL PEROXY-3,5,5-TRIMETHYLHEXANOATE |
| 2105* | 32 | tert-BUTYL MONOPEROXYPHTHALATE |
| 2106* | 32 | DI-(tert-BUTYLPEROXY) PHTHALATE |
| 2107* | 32 | DI-(tert-BUTYLPEROXY) PHTHALATE |
| 2108* | 32 | DI-(tert-BUTYLPEROXY) PHTHALATE |
| 2110* | 33 | tert-BUTYL PEROXYPIVALATE |
| 2111* | 32 | 2,2-DI-(tert-BUTYLPEROXY) BUTANE |
| 2112* | 32 | 1,4-DI-2(2-tert-BUTYLPEROXYISOPROPYL) BENZENE, and MIXTURES |
| 2113* | 32 | p-CHLOROBENZOYL PEROXIDE |
| 2114* | 32 | p-CHLOROBENZOYL PEROXIDE |
| 2115* | 32 | p-CHLOROBENZOYL PEROXIDE |
| 2116* | 32 | CUMENE HYDROPEROXIDE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2117* | 32 | CYCLOHEXANONE PEROXIDE(S) |
| 2118* | 32 | CYCLOHEXANONE PEROXIDE(S) |
| 2119* | 32 | CYCLOHEXANONE PEROXIDE(S) |
| 2120* | 33 | DECANOYL PEROXIDE |
| 2121* | 32 | DICUMYL PEROXIDE |
| 2122* | 33 | DI-2-(ETHYLHEXYL) PEROXYDICARBONATE |
| 2123* | 33 | DI-(2-ETHYLHEXYL) PEROXYDICARBONATE |
| 2124* | 32 | DILAUROYL PEROXIDE |
| 2125* | 32 | p-MENTHANE HYDROPEROXIDE |
| 2126* | 32 | METHYL ISOBUTYL KETONE PEROXIDE |
| 2127* | 32 | METHYL ETHYL KETONE PEROXIDE |
| 2128* | 33 | ISO-NONANOYL PEROXIDE |
| 2129* | 33 | DI-n-OCTANOYL PEROXIDE |
| 2130* | 33 | DI-n-NONANOYL PEROXIDE |
| 2131* | 32 | PEROXYACETIC ACID |
| 2132* | 33 | PROPIONYL PEROXIDE |
| 2133* | 33 | DIISOPROPYL PEROXYDICARBONATE |
| 2134* | 33 | DIISOPROPYL PEROXYDICARBONATE |
| 2135* | 32 | DISUCCINIC ACID PEROXIDE |
| 2136* | 32 | TETRALIN HYDROPEROXIDE |
| 2137* | 32 | 2,4-DICHLOROBENZOYL PEROXIDE |
| 2138* | 32 | 2,4-DICHLOROBENZOYL PEROXIDE |
| 2139* | 32 | 2,4-DICHLOROBENZOYL PEROXIDE |
| 2140* | 32 | n-BUTYL-4,4-DI-(tert-BUTYLPEROXY) VALERATE |
| 2141* | 32 | n-BUTYL-4,4-DI-(tert-BUTYLPEROXY) VALERATE |
| 2142* | 33 | tert-BUTYL PEROXYISOBUTYRATE |
| 2143* | 33 | tert-BUTYL PEROXY-2-ETHYLHEXANOATE |
| 2144* | 33 | tert-BUTYL PEROXYDIETHYLACETATE |
| 2145* | 32 | 1,1-DI-(tert-BUTYLPEROXY)-3,3,5-TRIMETHYL CYCLOHEXANE |
| 2146* | 32 | 1,1-DI-(tert-BUTYLPEROXY)-3,3,5-TRIMETHYL CYCLOHEXANE |
| 2147* | 32 | 1,1-DI-(tert-BUTYLPEROXY)-3,3,5-TRIMETHYL CYCLOHEXANE |
| 2148* | 32 | DI-(1-HYDROXYCYCLOHEXYL) PEROXIDE |
| 2149* | 33 | DIBENZYL PEROXYDICARBONATE |
| 2150* | 33 | DI-(sec-BUTYL) PEROXYDICARBONATE |
| 2151* | 33 | DI-(sec-BUTYL) PEROXYDICARBONATE |
| 2152* | 33 | DICYCLOHEXYL PEROXYDICARBONATE |
| 2153* | 33 | DICYCLOHEXYL PEROXYDICARBONATE |
| 2154* | 33 | DI-(4-tert-BUTYLCYCLOHEXYL) PEROXYDICARBONATE |
| 2155* | 32 | 2,5-DIMETHYL-2,5-DI-(tert-BUTYLPEROXY) HEXANE |
| 2156* | 32 | 2,5-DIMETHYL-2,5-DI-(tert-BUTYLPEROXY) HEXANE |
| 2157* | 33 | 2,5-DIMETHYL-2,5-DI-(2-ETHYLHEXANOYLPEROXY) HEXANE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2158* | 32 | 2,5-DIMETHYL-2,5-DI-(tert-BUTYLPEROXY) DEXYNE-3 |
| 2159* | 32 | 2,5-DIMETHYL-2,5-DI-(tert-BUTYLPEROXY) DEXYNE-3 |
| 2160* | 32 | 1,1,3,3-TETRAMETHYLBUTYL HYDROPEROXIDE |
| 2161* | 33 | 1,1,3,3-TETRAMETHYLBUTYL PEROXY-2-ETHYLHEXANOATE |
| 2162* | 32 | PINANE HYDROPEROXIDE |
| 2163* | 33 | DIACETONE ALCOHOL PEROXIDES |
| 2164* | 33 | DICETYL PEROXYDICARBONATE |
| 2165* | 32 | 3,3,6,6,9,9-HEXAMETHYL-1,2,4,5-TETRAOXACYCLONONANE |
| 2166* | 32 | 3,3,6,6,9,9-HEXAMETHYL-1,2,4,5-TETRAOXACYCLONONANE |
| 2167* | 32 | 3,3,6,6,9,9-HEXAMETHYL-1,2,4,5-TETRAOXACYCLONONANE |
| 2168* | 32 | 2,2-DI-(4,4-DI-tert-BUTYLPEROXYCYCLOHEXYL) PROPANE |
| 2169* | 33 | n-BUTYL PEROXYDICARBONATE |
| 2170* | 33 | n-BUTYL PEROXYDICARBONATE |
| 2171* | 32 | DI-ISO-PROPYLBENZENE HYDROPEROXIDE |
| 2172* | 32 | 2,5-DIMETHYL-2,5-DI-(BENZOYLPEROXY) HEXANE |
| 2173* | 32 | 2,5-DIMETHYL-2,5-DI-(BENZOYLPEROXY) HEXANE |
| 2174* | 32 | 2,5-DIMETHYL-2,5-DIHYDROPEROXY HEXANE |
| 2175* | 33 | DIETHYL PEROXYDICARBONATE |
| 2176* | 33 | DI-n-PROPYL PEROXYDICARBONATE |
| 2177* | 33 | tert-BUTYL PEROXYNEODECANOATE |
| 2178* | 32 | 2,2-DIHYDROPEROXY PROPANE |
| 2179* | 32 | 1,1-DI-(tert-BUTYLPEROXY) CYCLOHEXANE |
| 2180* | 32 | 1,1-DI-(tert-BUTYLPEROXY) CYCLOHEXANE |
| 2182* | 33 | DIISOBUTYRYL PEROXIDE |
| 2183* | 32 | tert-BUTYL PEROXYCROTONATE |
| 2184* | 32 | ETHYL-3,3-DI-(tert-BUTYLPEROXY) BUTYRATE |
| 2185* | 32 | ETHYL-3,3-DI-(tert-BUTYLPEROXY) BUTYRATE |
| 2186 | 07 | HYDROGEN CHLORIDE, REFRIGERATED LIQUID |
| 2187 | 09 | CARBON DIOXIDE, REFRIGERATED LIQUID |
| 2188 | 05 | ARSINE |
| 2189 | 05 | DICHLOROSILANE |
| 2190 | 12 | OXYGEN DIFLUORIDE, COMPRESSED |
| 2191 | 07 | SULPHURYL FLUORIDE |
| 2192 | 05 | GERMANE |
| 2193 | 06 | HEXAFLUOROETHANE (REFRIGERANT GAS R 116) |
| 2194 | 07 | SELENIUM HEXAFLUORIDE |
| 2195 | 07 | TELLURIUM HEXAFLUORIDE |
| 2196 | 07 | TUNGSTEN HEXAFLUORIDE |
| 2197 | 07 | HYDROGEN IODIDE, ANHYDROUS |
| 2198 | 07 | PHOSPHORUS PENTAFLUORIDE |
| 2199 | 13 | PHOSPHINE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2200 | 04P | PROPADIENE, STABILIZED |
| 2201 | 10 | NITROUS OXIDE, REFRIGERATED LIQUID |
| 2202 | 05 | HYDROGEN SELENIDE, ANHYDROUS |
| 2203 | 13D | SILANE |
| 2204 | 05 | CARBONYL SULPHIDE |
| 2205 | 36 | ADIPONITRILE |
| 2206 | 38 | ISOCYANATES, TOXIC, N.O.S. or ISOCYANATE SOLUTION, TOXIC, N.O.S. |
| 2207* | 38 | ISOCYANATES, N.O.S. or ISOCYANATE SOLUTION, TOXIC, N.O.S. |
| 2208 | 31 | CALCIUM HYPOCHLORITE MIXTURE, DRY |
| 2209 | 19 | FORMALDEHYDE SOLUTION |
| 2210 | 25 | MANEB or MANEB PREPARATION |
| 2211 | 20 | POLYMERIC BEADS, EXPANDABLE |
| 2212 | 47 | BLUE ASBESTOS (crocidolite) or BROWN ASBESTOS |
| 2213 | 20 | PARAFORMALDEHYDE |
| 2214 | 39 | PHTHALIC ANHYDRIDE |
| 2215 | 36 | MALEIC ANHYDRIDE or MALEIC ANHYDRIDE, MOLTEN |
| 2216 | 47 | FISH MEAL (FISH SCRAP), STABILIZED |
| 2217 | 23 | SEED CAKE |
| 2218 | 19P | ACRYLIC ACID, STABILIZED |
| 2219 | 17 | ALLYL GLYCIDYL ETHER |
| 2220* | 25 | ALUMINIUM ALKYL HALIDES |
| 2221* | 25 | ALUMINIUM ALKYL HALIDES |
| 2222 | 15 | ANISOLE |
| 2224 | 35 | BENZONITRILE |
| 2225 | 39 | BENZENESULPHONYL CHLORIDE |
| 2226 | 39 | BENZOTRICHLORIDE |
| 2227 | 19P | n-BUTYL METHACRYLATE, STABILIZED |
| 2228* | 36 | BUTYLPHENOLS, LIQUID |
| 2229* | 36 | BUTYLPHENOLS, SOLID |
| 2230* | 17 | CHLORINATED ANTHRACENE OIL |
| 2232 | 36 | 2-CHLOROETHANAL |
| 2233 | 35 | CHLOROANISIDINES |
| 2234 | 19 | CHLOROBENZOTRIFLUORIDES |
| 2235 | 36 | CHLOROBENZYL CHLORIDES, LIQUID |
| 2236 | 39 | 3-CHLORO-4-METHYLPHENYL ISOCYANATE, LIQUID |
| 2237 | 36 | CHLORONITROANILINES |
| 2238 | 18 | CHLOROTOLUENES |
| 2239 | 36 | CHLOROTOLUIDINES, SOLID |
| 2240 | 37 | CHROMOSULPHURIC ACID |
| 2241 | 14 | CYCLOHEPTANE |
| 2242 | 14 | CYCLOHEPTENE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2243 | 18 | CYCLOHEXYL ACETATE |
| 2244 | 17 | CYCLOPENTANOL |
| 2245 | 15 | CYCLOPENTANONE |
| 2246 | 14 | CYCLOPENTENE |
| 2247 | 15 | n-DECANE |
| 2248 | 36 | DI-n-BUTYLAMINE |
| 2249 | 36 | DICHLORODIMETHYL ETHER, SYMMETRICAL |
| 2250 | 39 | DICHLOROPHENYL ISOCYANATES |
| 2251 | 14P | BICYCLO[2.2.1]HEPTA-2,5-DIENE, STABILIZED (2,5-NORBORNADIENE, STABILIZED) |
| 2252 | 14 | 1,2-DIMETHOXYETHANE |
| 2253 | 36 | N,N-DIMETHYLANILINE |
| 2254 | 20 | MATCHES, FUSEE |
| 2255* | 32 | ORGANIC PEROXIDES, SAMPLES, N.O.S. |
| 2256 | 14 | CYCLOHEXENE |
| 2257 | 27 | POTASSIUM |
| 2258 | 19 | 1,2-PROPYLENEDIAMINE |
| 2259 | 36 | TRIETHYLENETETRAMINE |
| 2260 | 19 | TRIPROPYLAMINE |
| 2261 | 36 | XYLENOLS, SOLID |
| 2262 | 39 | DIMETHYLCARBAMOYL CHLORIDE |
| 2263 | 14 | DIMETHYLCYCLOHEXANES |
| 2264 | 19 | N,N-DIMETHYLCYCLOHEXYLAMINE |
| 2265 | 19 | N,N-DIMETHYLFORMAMIDE |
| 2266 | 19 | DIMETHYL-N-PROPYLAMINE |
| 2267 | 39 | DIMETHYL THIOPHOSPHORYL CHLORIDE |
| 2269 | 36 | 3,3'-IMINODIPROPYLAMINE |
| 2270 | 18 | ETHYLAMINE, AQUEOUS SOLUTION |
| 2271 | 15 | ETHYL AMYL KETONE |
| 2272 | 36 | N-ETHYLANILINE |
| 2273 | 36 | 2-ETHYLANILINE |
| 2274 | 36 | N-ETHYL-N-BENZYLANILINE |
| 2275 | 17 | 2-ETHYLBUTANOL |
| 2276 | 36 | 2-ETHYLHEXYLAMINE |
| 2277 | 19P | ETHYL METHACRYLATE, STABILIZED |
| 2278 | 14 | n-HEPTENE |
| 2279 | 34 | HEXACHLOROBUTADIENE |
| 2280 | 36 | HEXAMETHYLENEDIAMINE, SOLID |
| 2281 | 39 | HEXAMETHYLENE DIISOCYANATE |
| 2282 | 17 | HEXANOLS |
| 2283 | 19DP | ISOBUTYL METHACRYLATE, STABILIZED |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2284 | 17 | ISOBUTYRONITRILE |
| 2285 | 39 | ISOCYANATOBENZOTRIFLUORIDES |
| 2286 | 15 | PENTAMETHYLHEPTANE |
| 2287 | 14 | ISOHEPTENES |
| 2288 | 14 | ISOHEXENES |
| 2289 | 36 | ISOPHORONEDIAMINE |
| 2290 | 39 | ISOPHORONE DIISOCYANATE |
| 2291 | 34 | LEAD COMPOUND, SOLUBLE, N.O.S. |
| 2293 | 15 | 4-METHOXY-4-METHYLPENTAN-2-ONE |
| 2294 | 36 | N-METHYLANILINE |
| 2295 | 38 | METHYL CHLOROACETATE |
| 2296 | 14 | METHYLCYCLOHEXANE |
| 2297 | 15 | METHYLCYCLOHEXANONE |
| 2298 | 14 | METHYLCYCLOPENTANE |
| 2299 | 38 | METHYL DICHLOROACETATE |
| 2300 | 36 | 2-METHYL-5-ETHYLPYRIDINE |
| 2301 | 14 | 2-METHYLFURAN |
| 2302 | 15 | 5-METHYLHEXAN-2-ONE |
| 2303 | 15 | ISOPROPENYLBENZENE |
| 2304 | 20 | NAPHTHALENE, MOLTEN |
| 2305 | 36D | NITROBENZENESULPHONIC ACID |
| 2306 | 35 | NITROBENZOTRIFLUORIDES |
| 2307 | 35 | 3-NITRO-4-CHLOROBENZOTRIFLUORIDE |
| 2308 | 40 | NITROSYLSULPHURIC ACID, LIQUID |
| 2309 | 14P | OCTADIENE |
| 2310 | 15 | PENTANE-2,4-DIONE |
| 2311 | 36 | PHENETIDINES |
| 2312 | 36 | PHENOL, MOLTEN |
| 2313 | 18 | PICOLINES |
| 2315 | 48 | POLYCHLORINATED BIPHENYLS, LIQUID |
| 2316 | 40 | SODIUM CUPROCYANIDE, SOLID |
| 2317 | 40 | SODIUM CUPROCYANIDE SOLUTION |
| 2318 | 23 | SODIUM HYDROSULPHIDE |
| 2319 | 15 | TERPENE HYDROCARBONS, N.O.S. |
| 2320 | 36 | TETRAETHYLENEPENTAMINE |
| 2321 | 36 | TRICHLOROBENZENES, LIQUID |
| 2322 | 35 | TRICHLOROBUTENE |
| 2323 | 39 | TRIETHYL PHOSPHITE |
| 2324 | 15 | TRIISOBUTYLENE |
| 2325 | 17 | 1,3,5-TRIMETHYLBENZENE |
| 2326 | 36 | TRIMETHYLCYCLOHEXYLAMINE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2327 | 36 | TRIMETHYLHEXAMETHYLENEDIAMINES |
| 2328 | 39 | TRIMETHYLHEXAMETHYLENE DIISOCYANATE |
| 2329 | 27 | TRIMETHYL PHOSPHITE |
| 2330 | 15 | UNDECANE |
| 2331 | 37 | ZINC CHLORIDE, ANHYDROUS |
| 2332 | 19 | ACETALDEHYDE OXIME |
| 2333 | 19 | ALLYL ACETATE |
| 2334 | 18 | ALLYLAMINE |
| 2335 | 16 | ALLYL ETHYL ETHER |
| 2336 | 18 | ALLYL FORMATE |
| 2337 | 16 | PHENYL MERCAPTAN |
| 2338 | 16 | BENZOTRIFLUORIDE |
| 2339 | 17 | 2-BROMOBUTANE |
| 2340 | 16 | 2-BROMOETHYL ETHYL ETHER |
| 2341 | 18 | 1-BROMO-3-METHYLBUTANE |
| 2342 | 19 | BROMOMETHYLPROPANES |
| 2343 | 18 | 2-BROMOPENTANE |
| 2344 | 18 | BROMOPROPANES |
| 2345 | 18 | 3-BROMOPROPYNE |
| 2346 | 14 | BUTANEDIONE |
| 2347 | 16 | BUTYL MERCAPTAN |
| 2348 | 19P | BUTYL ACRYLATES, STABILIZED |
| 2350 | 14 | BUTYL METHYL ETHER |
| 2351 | 17 | BUTYL NITRITES |
| 2352 | 14P | BUTYL VINYL ETHER, STABILIZED |
| 2353 | 40 | BUTYRYL CHLORIDE |
| 2354 | 17 | CHLOROMETHYL ETHYL ETHER |
| 2356 | 18 | 2-CHLOROPROPANE |
| 2357 | 19 | CYCLOHEXYLAMINE |
| 2358 | 15P | CYCLOOCTATETRAENE |
| 2359 | 19 | DIALLYLAMINE |
| 2360 | 16P | DIALLYL ETHER |
| 2361 | 19 | DIISOBUTYLAMINE |
| 2362 | 18 | 1,1-DICHLOROETHANE |
| 2363 | 16 | ETHYL MERCAPTAN |
| 2364 | 15 | n-PROPYLBENZENE |
| 2366 | 15 | DIETHYL CARBONATE |
| 2367 | 18 | alpha-METHYLVALERALDEHYDE |
| 2368 | 14 | alpha-PINENE |
| 2369* | 35 | ETHYLENE GLYCOL MONOBUTYL ETHER |
| 2370 | 14 | 1-HEXENE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2371 | 14 | ISOPENTENES |
| 2372 | 18 | 1,2-DI-(DIMETHYLAMINO) ETHANE |
| 2373 | 14 | DIETHOXYMETHANE |
| 2374 | 14 | 3,3-DIETHOXYPROPENE |
| 2375 | 26 | DIETHYL SULPHIDE |
| 2376 | 14 | 2,3-DIHYDROPYRAN |
| 2377 | 14 | 1,1-DIMETHOXYETHANE |
| 2378 | 18 | 2-DIMETHYLAMINOACETONITRILE |
| 2379 | 18 | 1,3-DIMETHYLBUTYLAMINE |
| 2380 | 14 | DIMETHYLDIETHOXYSILANE |
| 2381 | 18 | DIMETHYL DISULPHIDE |
| 2382 | 16 | DIMETHYLHYDRAZINE, SYMMETRICAL |
| 2383 | 18 | DIPROPYLAMINE |
| 2384 | 14 | DI-n-PROPYL ETHER |
| 2385 | 18 | ETHYL ISOBUTYRATE |
| 2386 | 18 | 1-ETHYLPIPERIDINE |
| 2387 | 17 | FLUOROBENZENE |
| 2388 | 16 | FLUOROTOLUENES |
| 2389 | 14 | FURAN |
| 2390 | 16 | 2-IODOBUTANE |
| 2391 | 16 | IODOMETHYLPROPANES |
| 2392 | 17 | IODOPROPANES |
| 2393 | 18 | ISOBUTYL FORMATE |
| 2394 | 18 | ISOBUTYL PROPIONATE |
| 2395 | 38 | ISOBUTYRYL CHLORIDE |
| 2396 | 19P | METHACRYLALDEHYDE, STABILIZED |
| 2397 | 14 | 3-METHYLBUTAN-2-ONE |
| 2398 | 14 | METHYL tert-BUTYL ETHER |
| 2399 | 18 | 1-METHYLPIPERIDINE |
| 2400 | 18 | METHYL ISOVALERATE |
| 2401 | 19 | PIPERIDINE |
| 2402 | 16 | PROPANETHIOLS |
| 2403 | 18P | ISOPROPENYL ACETATE |
| 2404 | 17 | PROPIONITRILE |
| 2405 | 19 | ISOPROPYL BUTYRATE |
| 2406 | 18 | ISOPROPYL ISOBUTYRATE |
| 2407 | 38 | ISOPROPYL CHLOROFORMATE |
| 2408* | 14 | ISOPROPYL FORMATE |
| 2409 | 18 | ISOPROPYL PROPIONATE |
| 2410 | 18 | 1,2,3,6-TETRAHYDROPYRIDINE |
| 2411 | 17 | BUTYRONITRILE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2412 | 16 | TETRAHYDROTHIOPHENE |
| 2413 | 38 | TETRAPROPYL ORTHOTITANATE |
| 2414 | 16 | THIOPHENE |
| 2416 | 38 | TRIMETHYL BORATE |
| 2417 | 07 | CARBONYL FLUORIDE |
| 2418 | 07 | SULPHUR TETRAFLUORIDE |
| 2419 | 14 | BROMOTRIFLUOROETHYLENE |
| 2420 | 07 | HEXAFLUOROACETONE |
| 2421 | 12 | NITROGEN TRIOXIDE |
| 2422 | 06 | OCTAFLUOROBUT-2-ENE (REFRIGERANT GAS R 1318) |
| 2424 | 06 | OCTAFLUOROPROPANE (REFRIGERANT GAS R 218) |
| 2426 | 50 | AMMONIUM NITRATE, LIQUID |
| 2427 | 31 | POTASSIUM CHLORATE, AQUEOUS SOLUTION |
| 2428 | 31 | SODIUM CHLORATE, AQUEOUS SOLUTION |
| 2429 | 31 | CALCIUM CHLORATE, AQUEOUS SOLUTION |
| 2430 | 36 | ALKYLPHENOLS, SOLID, N.O.S. |
| 2431 | 36 | ANISIDINES |
| 2432 | 36 | N,N-DIETHYLANILINE |
| 2433 | 35 | CHLORONITROTOLUENES, LIQUID |
| 2434 | 39 | DIBENZYLDICHLOROSILANE |
| 2435 | 39 | ETHYLPHENYLDICHLOROSILANE |
| 2436 | 18 | THIOACETIC ACID |
| 2437 | 25 | METHYLPHENYLDICHLOROSILANE |
| 2438 | 38 | TRIMETHYLACETYL CHLORIDE |
| 2439 | 37 | SODIUM HYDROGEN DIFLUORIDE |
| 2440 | 37 | STANNIC CHLORIDE PENTAHYDRATE |
| 2441 | 25 | TITANIUM TRICHLORIDE, PYROPHORIC or TITANIUM TRICHLORIDE MIXTURE, PYROPHORIC |
| 2442 | 39 | TRICHLOROACETYL CHLORIDE |
| 2443 | 40 | VANADIUM OXYTRICHLORIDE |
| 2444 | 40 | VANADIUM TETRACHLORIDE |
| 2445* | 25 | LITHIUM ALKYLS, LIQUID |
| 2446 | 36 | NITROCRESOLS, SOLID |
| 2447 | 24 | PHOSPHORUS, WHITE, MOLTEN |
| 2448 | 20 | SULPHUR, MOLTEN |
| 2449* | 37 | OXALATES, WATER-SOLUBLE |
| 2451 | 12 | NITROGEN TRIFLUORIDE |
| 2452 | 04P | ETHYLACETYLENE, STABILIZED |
| 2453 | 04 | ETHYL FLUORIDE (REFRIGERANT GAS R 161) |
| 2454 | 04 | METHYL FLUORIDE (REFRIGERANT GAS R 41) |
| 2455 | 05 | METHYL NITRITE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2456 | 18P | 2-CHLOROPROPENE |
| 2457 | 14 | 2,3-DIMETHYLBUTANE |
| 2458 | 14 | HEXADIENE |
| 2459 | 14 | 2-METHYL-1-BUTENE |
| 2460 | 14 | 2-METHYL-2-BUTENE |
| 2461 | 14 | METHYLPENTADIENE |
| 2462* | 14 | METHYLPENTANES |
| 2463 | 26 | ALUMINIUM HYDRIDE |
| 2464 | 31 | BERYLLIUM NITRATE |
| 2465 | 31 | DICHLOROISOCYANURIC ACID, DRY or DICHLOROISOCYANURIC ACID SALTS |
| 2466 | 28 | POTASSIUM SUPEROXIDE |
| 2467* | 31 | SODIUM PERCARBONATE |
| 2468 | 31 | TRICHLOROISOCYANURIC ACID, DRY |
| 2469 | 31 | ZINC BROMATE |
| 2470 | 35 | PHENYLACETONITRILE, LIQUID |
| 2471 | 37 | OSMIUM TETROXIDE |
| 2472* | 34 | PINDONE |
| 2473 | 37 | SODIUM ARSANILATE |
| 2474 | 40 | THIOPHOSGENE |
| 2475 | 40 | VANADIUM TRICHLORIDE |
| 2477 | 17 | METHYL ISOTHIOCYANATE |
| 2478 | 38 | ISOCYANATES, FLAMMABLE, TOXIC, N.O.S. or ISOCYANATE SOLUTION, FLAMMABLE, TOXIC, N.O.S. |
| 2479* | 38 | ISOCYANATES |
| 2480 | 38 | METHYL ISOCYANATE |
| 2481 | 38 | ETHYL ISOCYANATE |
| 2482 | 38 | n-PROPYL ISOCYANATE |
| 2483 | 38 | ISOPROPYL ISOCYANATE |
| 2484 | 38 | tert-BUTYL ISOCYANATE |
| 2485 | 38 | n-BUTYL ISOCYANATE |
| 2486 | 38 | ISOBUTYL ISOCYANATE |
| 2487 | 38 | PHENYL ISOCYANATE |
| 2488 | 38 | CYCLOHEXYL ISOCYANATE |
| 2489* | 39 | DIPHENYLMETHANE-4,4'-DIISOCYANATE (MDI) |
| 2490 | 36 | DICHLOROISOPROPYL ETHER |
| 2491 | 36 | ETHANOLAMINE or ETHANOLAMINE SOLUTION |
| 2493 | 18 | HEXAMETHYLENEIMINE |
| 2495 | 28 | IODINE PENTAFLUORIDE |
| 2496 | 39 | PROPIONIC ANHYDRIDE |
| 2497* | 37 | SODIUM PHENOLATE |
| 2498 | 19 | 1,2,3,6-TETRAHYDROBENZALDEHYDE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2501 | 35 | TRIS-(1-AZIRIDINYL) PHOSPHINE OXIDE SOLUTION |
| 2502 | 38 | VALERYL CHLORIDE |
| 2503 | 40 | ZIRCONIUM TETRACHLORIDE |
| 2504 | 34 | TETRABROMOETHANE |
| 2505 | 37 | AMMONIUM FLUORIDE |
| 2506 | 37 | AMMONIUM HYDROGEN SULPHATE |
| 2507 | 37 | CHLOROPLATINIC ACID, SOLID |
| 2508 | 39 | MOLYBDENUM PENTACHLORIDE |
| 2509 | 37 | POTASSIUM HYDROGEN SULPHATE |
| 2511 | 36 | 2-CHLOROPROPIONIC ACID |
| 2512 | 35 | AMINOPHENOLS (o-, m-, p-) |
| 2513 | 39 | BROMOACETYL BROMIDE |
| 2514 | 17 | BROMOBENZENE |
| 2515 | 37 | BROMOFORM |
| 2516 | 34 | CARBON TETRABROMIDE |
| 2517 | 04 | 1-CHLORO-1,1-DIFLUOROETHANE (REFRIGERANT GAS R 142b) |
| 2518 | 36 | 1,5,9-CYCLODODECATRIENE |
| 2520 | 19P | CYCLOOCTADIENES |
| 2521 | 39P | DIKETENE, STABILIZED |
| 2522 | 36P | 2-DIMETHYLAMINOETHYL METHACRYLATE |
| 2524 | 19 | ETHYL ORTHOFORMATE |
| 2525 | 39 | ETHYL OXALATE |
| 2526 | 19 | FURFURYLAMINE |
| 2527 | 19P | ISOBUTYL ACRYLATE, STABILIZED |
| 2528 | 19 | ISOBUTYL ISOBUTYRATE |
| 2529 | 17 | ISOBUTYRIC ACID |
| 2530* | 38 | ISOBUTYRIC ANHYDRIDE |
| 2531 | 36P | METHACRYLIC ACID, STABILIZED |
| 2533 | 38 | METHYL TRICHLOROACETATE |
| 2534 | 05 | METHYLCHLOROSILANE |
| 2535 | 19 | 4-METHYLMORPHOLINE (N-METHYLMORPHOLINE) |
| 2536 | 14 | METHYLTETRAHYDROFURAN |
| 2538 | 20 | NITRONAPHTHALENE |
| 2541 | 15 | TERPINOLENE |
| 2542 | 36 | TRIBUTYLAMINE |
| 2545 | 25 | HAFNIUM POWDER, DRY |
| 2546 | 25 | TITANIUM POWDER, DRY |
| 2547 | 28 | SODIUM SUPEROXIDE |
| 2548 | 12 | CHLORINE PENTAFLUORIDE |
| 2550* | 32 | METHYL ETHYL KETONE PEROXIDES |
| 2551* | 32 | tert-BUTYL PEROXYDIETHYLACETATE, with tert-BUTYL PEROXYBENZOATE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2552 | 34 | HEXAFLUOROACETONE HYDRATE |
| 2553* | 14 | NAPHTHA |
| 2554 | 16P | METHYLALLYL CHLORIDE |
| 2555 | 52 | NITROCELLULOSE WITH WATER |
| 2556 | 52 | NITROCELLULOSE WITH ALCOHOL |
| 2557 | 52 | NITROCELLULOSE, MIXTURE WITH or WITHOUT PLASTICIZER, WITH or WITHOUT PIGMENT |
| 2558 | 18 | EPIBROMOHYDRIN |
| 2560 | 17 | 2-METHYLPENTAN-2-OL |
| 2561 | 14 | 3-METHYL-1-BUTENE |
| 2562* | 33 | tert-BUTYL PEROXYISOBUTYRATE |
| 2563* | 32 | METHYL ETHYL KETONE PEROXIDE(S) |
| 2564 | 36 | TRICHLOROACETIC ACID SOLUTION |
| 2565 | 36 | DICYCLOHEXYLAMINE |
| 2567 | 37 | SODIUM PENTACHLOROPHENATE |
| 2570 | 37 | CADMIUM COMPOUND |
| 2571 | 39 | ALKYLSULPHURIC ACIDS |
| 2572 | 36 | PHENYLHYDRAZINE |
| 2573 | 31 | THALLIUM CHLORATE |
| 2574 | 34 | TRICRESYL PHOSPHATE |
| 2575* | 34 | VANADIUM COMPOUNDS, N.O.S. |
| 2576 | 40 | PHOSPHORUS OXYBROMIDE, MOLTEN |
| 2577 | 39 | PHENYLACETYL CHLORIDE |
| 2578 | 23 | PHOSPHORUS TRIOXIDE |
| 2579 | 36 | PIPERAZINE |
| 2580 | 37 | ALUMINIUM BROMIDE SOLUTION |
| 2581 | 37 | ALUMINIUM CHLORIDE SOLUTION |
| 2582 | 37 | FERRIC CHLORIDE SOLUTION |
| 2583 | 36 | ALKYLSULPHONIC ACIDS, SOLID or ARYLSULPHONIC ACIDS, SOLID |
| 2584 | 36 | ALKYLSULPHONIC ACIDS, LIQUID or ARYLSULPHONIC ACIDS, LIQUID |
| 2585 | 36 | ALKYLSULPHONIC ACIDS, SOLID or ARYLSULPHONIC ACIDS, SOLID |
| 2586 | 36 | ALKYLSULPHONIC ACIDS, LIQUID or ARYLSULPHONIC ACIDS, LIQUID |
| 2587 | 36 | BENZOQUINONE |
| 2588 | 34 | PESTICIDE, SOLID, TOXIC, N.O.S. |
| 2589 | 39 | VINYL CHLOROACETATE |
| 2590 | 47 | WHITE ASBESTOS |
| 2591 | 08 | XENON, REFRIGERATED LIQUID |
| 2592* | 32 | DISTEARYL PEROXYDICARBONATE |
| 2593* | 33 | DI-(2-METHYLBENZOYL) PEROXIDE |
| 2594* | 33 | tert-BUTYL PEROXYNEODECANOATE |
| 2595* | 33 | DIMYRISTYL PEROXYDICARBONATE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2596* | 32 | 3-tert-BUTYL PEROXY-3-PHENYLPHTHALIDE |
| 2597* | 33 | DI-(3,5,-TRIMETHYL-1,2-DIOXOLANYL-3) PEROXIDE |
| 2598* | 32 | ETHYL-3,3-DI-(tert-BUTYLPEROXY) BUTYRATE |
| 2599 | 06 | CHLOROTRIFLUOROMETHANE AND TRIFLUOROMETHANE AZEOTROPIC MIXTURE (REFRIGERANT GAS R 503) |
| 2600* | 05 | CARBON MONOXIDE AND HYDROGEN MIXTURE, COMPRESSED |
| 2601 | 04 | CYCLOBUTANE |
| 2602 | 06 | DICHLORODIFLUOROMETHANE AND DIFLUOROETHANE AZEOTROPIC MIXTURE (REFRIGERANT GAS R 500) |
| 2603 | 17 | CYCLOHEPTATRIENE |
| 2604 | 27 | BORON TRIFLUORIDE DIETHYL ETHERATE |
| 2605 | 38 | METHOXYMETHYL ISOCYANATE |
| 2606 | 38 | METHYL ORTHOSILICATE |
| 2607 | 19P | ACROLEIN DIMER, STABILIZED |
| 2608 | 17D | NITROPROPANES |
| 2609 | 39 | TRIALLYL BORATE |
| 2610 | 19 | TRIALLYLAMINE |
| 2611 | 17 | PROPYLENE CHLOROHYDRIN |
| 2612 | 14 | METHYL PROPYL ETHER |
| 2614 | 17 | METHALLYL ALCOHOL |
| 2615 | 14 | ETHYL PROPYL ETHER |
| 2616 | 15 | TRIISOPROPYL BORATE |
| 2617 | 17 | METHYLCYCLOHEXANOLS |
| 2618 | 17P | VINYLTOLUENES, STABILIZED |
| 2619 | 36 | BENZYLDIMETHYLAMINE |
| 2620 | 19 | AMYL BUTYRATES |
| 2621 | 15P | ACETYL METHYL CARBINOL |
| 2622 | 19P | GLYCIDALDEHYDE |
| 2623 | 20 | FIRELIGHTERS, SOLID |
| 2624 | 26 | MAGNESIUM SILICIDE |
| 2626 | 31 | CHLORIC ACID, AQUEOUS SOLUTION |
| 2627 | 31 | NITRITES, INORGANIC, N.O.S. |
| 2628 | 34 | POTASSIUM FLUOROACETATE |
| 2629 | 34 | SODIUM FLUOROACETATE |
| 2630 | 34 | SELENATES or SELENITES |
| 2642 | 39 | FLUOROACETIC ACID |
| 2643 | 39 | METHYL BROMOACETATE |
| 2644 | 34 | METHYL IODIDE |
| 2645 | 36 | PHENACYL BROMIDE |
| 2646 | 34 | HEXACHLOROCYCLOPENTADIENE |
| 2647 | 36 | MALONONITRILE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2648 | 37 | 1,2-DIBROMOBUTAN-3-ONE |
| 2649 | 36 | 1,3-DICHLOROACETONE |
| 2650 | 36 | 1,1-DICHLORO-1-NITROETHANE |
| 2651 | 36 | 4,4'-DIAMINODIPHENYLMETHANE |
| 2653 | 39 | BENZYL IODIDE |
| 2655 | 34 | POTASSIUM FLUOROSILICATE |
| 2656 | 36 | QUINOLINE |
| 2657 | 36 | SELENIUM DISULPHIDE |
| 2658* | 35 | SELENIUM, METAL, POWDER, NON-PYROPHORIC |
| 2659 | 34 | SODIUM CHLOROACETATE |
| 2660 | 36 | NITROTOLUIDINES (MONO) |
| 2661 | 37 | HEXACHLOROACETONE |
| 2662* | 36 | HYDROQUINONE |
| 2664 | 37 | DIBROMOMETHANE |
| 2666* | 39 | ETHYL CYANOACETATE |
| 2667 | 35 | BUTYLTOLUENES |
| 2668 | 19 | CHLOROACETONITRILE |
| 2669 | 35 | CHLOROCRESOLS, SOLUTION |
| 2670 | 40 | CYANURIC CHLORIDE |
| 2671 | 36 | AMINOPYRIDINES (o-, m-, p-) |
| 2672 | 37 | AMMONIA SOLUTION |
| 2673 | 34 | 2-AMINO-4-CHLOROPHENOL |
| 2674 | 37 | SODIUM FLUOROSILICATE |
| 2675* | 36 | TRIETHYLENE DIAMINE |
| 2676 | 05 | STIBINE |
| 2677 | 37 | RUBIDIUM HYDROXIDE SOLUTION |
| 2678 | 37 | RUBIDIUM HYDROXIDE |
| 2679 | 37 | LITHIUM HYDROXIDE SOLUTION |
| 2680 | 37 | LITHIUM HYDROXIDE |
| 2681 | 40 | CAESIUM HYDROXIDE SOLUTION |
| 2682 | 40 | CAESIUM HYDROXIDE |
| 2683 | 19 | AMMONIUM SULPHIDE SOLUTION |
| 2684 | 19 | 3-DIETHYLAMINOPROPYLAMINE |
| 2685 | 19 | N,N-DIETHYLETHYLENEDIAMINE |
| 2686 | 19 | 2-DIETHYLAMINOETHANOL |
| 2687 | 20 | DICYCLOHEXYLAMMONIUM NITRITE |
| 2688 | 34 | 1-BROMO-3-CHLOROPROPANE |
| 2689 | 36 | GLYCEROL alpha-MONOCHLOROHYDRIN |
| 2690 | 35 | N,n-BUTYLIMIDAZOLE |
| 2691 | 40 | PHOSPHORUS PENTABROMIDE |
| 2692 | 40 | BORON TRIBROMIDE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2693 | 37 | BISULPHITES, AQUEOUS SOLUTION, N.O.S. |
| 2698 | 39 | TETRAHYDROPHTHALIC ANHYDRIDES |
| 2699 | 37 | TRIFLUOROACETIC ACID |
| 2703* | 16 | ISOPROPYL MERCAPTAN |
| 2704* | 16 | PROPYL MERCAPTAN |
| 2705 | 19P | 1-PENTOL |
| 2706* | 16 | DIETHYLCARBINOL (3-Pentanol) |
| 2707 | 15 | DIMETHYLDIOXANES |
| 2708* | 15 | BUTOXYL |
| 2709 | 15 | BUTYLBENZENES |
| 2710 | 15 | DIPROPYL KETONE |
| 2711* | 15 | DIBROMOBENZENE |
| 2713 | 36 | ACRIDINE |
| 2714 | 20 | ZINC RESINATE |
| 2715 | 20 | ALUMINIUM RESINATE |
| 2716 | 36 | 1,4-BUTYNEDIOL |
| 2717 | 20 | CAMPHOR |
| 2718* | 25 | TRIPROPYL ALUMINIUM |
| 2719 | 31 | BARIUM BROMATE |
| 2720 | 31 | CHROMIUM NITRATE |
| 2721 | 31 | COPPER CHLORATE |
| 2722 | 31 | LITHIUM NITRATE |
| 2723 | 31 | MAGNESIUM CHLORATE |
| 2724 | 31 | MANGANESE NITRATE |
| 2725 | 31 | NICKEL NITRATE |
| 2726 | 31 | NICKEL NITRITE |
| 2727 | 31 | THALLIUM NITRATE |
| 2728 | 31 | ZIRCONIUM NITRATE |
| 2729 | 35 | HEXACHLOROBENZENE |
| 2730 | 35 | NITROANISOLES, LIQUID |
| 2732 | 35 | NITROBROMOBENZENE, LIQUID |
| 2733 | 18 | AMINES, FLAMMABLE, CORROSIVE, N.O.S. or POLYAMINES, FLAMMABLE, CORROSIVE, N.O.S. |
| 2734 | 18 | AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. |
| 2735 | 36 | AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. |
| 2738 | 36 | N-BUTYLANILINE |
| 2739 | 39 | BUTYRIC ANHYDRIDE |
| 2740 | 38 | n-PROPYL CHLOROFORMATE |
| 2741 | 31 | BARIUM HYPOCHLORITE |
| 2742 | 38 | CHLOROFORMATES, TOXIC, CORROSIVE, FLAMMABLE, N.O.S. |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2743 | 39 | n-BUTYL CHLOROFORMATE |
| 2744 | 38 | CYCLOBUTYL CHLOROFORMATE |
| 2745 | 40 | CHLOROMETHYL CHLOROFORMATE |
| 2746 | 39 | PHENYL CHLOROFORMATE |
| 2747 | 39 | tert-BUTYLCYCLOHEXYL CHLOROFORMATE |
| 2748 | 39 | 2-ETHYLHEXYL CHLOROFORMATE |
| 2749 | 16 | TETRAMETHYLSILANE |
| 2750 | 36 | 1,3-DICHLOROPROPANOL-2 |
| 2751 | 38 | DIETHYLTHIOPHOSPHORYL CHLORIDE |
| 2752 | 15 | 1,2-EPOXY-3-ETHOXYPROPANE |
| 2753 | 36 | N-ETHYLBENZYLTOLUIDINES, LIQUID |
| 2754 | 36 | N-ETHYLTOLUIDINES |
| 2755* | 32 | 3-CHLOROPEROXYBENZOIC, ACID |
| 2756* | 32 | ORGANIC PEROXIDES, MIXTURES |
| 2757 | 34 | CARBAMATE PESTICIDE, SOLID, TOXIC |
| 2758 | 16 | CARBAMATE PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 2759 | 34 | ARSENICAL PESTICIDE, SOLID, TOXIC |
| 2760 | 16 | ARSENICAL PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 2761 | 34 | ORGANOCHLORINE PESTICIDE, SOLID, TOXIC |
| 2762 | 18 | ORGANOCHLORINE PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 2763 | 34 | TRIAZINE PESTICIDE, SOLID, TOXIC |
| 2764 | 16 | TRIAZINE PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 2765* | 35 | PHENOXY PESTICIDE,SOLID, TOXIC |
| 2766* | 16 | PHENOXY PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 2767* | 34 | PHENYL UREA PESTICIDE, SOLID, TOXIC |
| 2768* | 16 | PHENYL UREA PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 2769* | 34 | BENZOIC DERIVATIVE PESTICIDE, SOLID, TOXIC |
| 2770* | 16 | BENZOIC DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 2771 | 34 | THIOCARBAMATE PESTICIDE, SOLID, TOXIC |
| 2772 | 16 | THIOCARBAMATE PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 2773* | 34 | PHTHALIMIDE DERIVATIVE PESTICIDE, SOLID, TOXIC |
| 2774* | 16 | PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 2775 | 34 | COPPER BASED PESTICIDE, SOLID, TOXIC |
| 2776 | 16 | COPPER BASED PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 2777 | 34 | MERCURY BASED PESTICIDE, SOLID, TOXIC |
| 2778 | 16 | MERCURY BASED PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 2779 | 36 | SUBSTITUTED NITROPHENOL PESTICIDE, SOLID, TOXIC |
| 2780 | 18 | SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 2781 | 34 | BIPYRIDILIUM PESTICIDE, SOLID, TOXIC |
| 2782 | 16 | BIPYRIDILIUM PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 2783 | 35 | ORGANOPHOSPHORUS PESTICIDE, SOLID, TOXIC |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2784 | 16 | ORGANOPHOSPHORUS PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 2785 | 19 | 4-THIAPENTANAL |
| 2786 | 36 | ORGANOTIN PESTICIDE, SOLID, TOXIC |
| 2787 | 16 | ORGANOTIN PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 2788 | 36 | ORGANOTIN COMPOUND, LIQUID, N.O.S. |
| 2789 | 19 | ACETIC ACID, GLACIAL or ACETIC ACID SOLUTION |
| 2790 | 36 | ACETIC ACID SOLUTION |
| 2791* | 20 | AIRCRAFT THRUST DEVICE |
| 2792* | 20 | IGNITER FOR AIRCRAFT THRUST DEVICE |
| 2793 | 29 | FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS |
| 2794 | 37 | BATTERIES, WET, FILLED WITH ACID |
| 2795 | 37 | BATTERIES, WET, FILLED WITH ALKALI |
| 2796 | 37 | SULPHURIC ACID or BATTERY FLUID, ACID |
| 2797 | 37 | BATTERY FLUID, ALKALI |
| 2798 | 39 | PHENYLPHOSPHORUS DICHLORIDE |
| 2799 | 39 | PHENYLPHOSPHORUS THIODICHLORIDE |
| 2800 | 37 | BATTERIES, WET, NON-SPILLABLE |
| 2801 | 37 | DYE, LIQUID, CORROSIVE, N.O.S. or DYE INTERMEDIATE, LIQUID, CORROSIVE, N.O.S. |
| 2802 | 37 | COPPER CHLORIDE |
| 2803 | 30 | GALLIUM |
| 2805 | 26 | LITHIUM HYDRIDE, FUSED SOLID |
| 2806 | 27 | LITHIUM NITRIDE |
| 2807 | 47 | MAGNETIZED MATERIAL |
| 2809 | 30 | MERCURY |
| 2810 | 36 | TOXIC LIQUID, ORGANIC, N.O.S. |
| 2811 | 36 | TOXIC SOLID, ORGANIC, N.O.S. |
| 2812 | 37 | SODIUM ALUMINATE, SOLID |
| 2813 | 26 | WATER-REACTIVE SOLID, N.O.S. |
| 2814 | 41 | INFECTIOUS SUBSTANCE, AFFECTING HUMANS |
| 2815 | 36 | N-AMINOETHYLPIPERAZINE |
| 2817 | 37 | AMMONIUM HYDROGEN DIFLUORIDE SOLUTION |
| 2818 | 37 | AMMONIUM POLYSULPHIDE SOLUTION |
| 2819 | 36 | AMYL ACID PHOSPHATE |
| 2820 | 36 | BUTYRIC ACID |
| 2821 | 36 | PHENOL SOLUTION |
| 2822 | 36 | 2-CHLOROPYRIDINE |
| 2823 | 36 | CROTONIC ACID, SOLID |
| 2825* | 14 | DIISOPROPYLETHANOLAMINE |
| 2826 | 38 | ETHYL CHLOROTHIOFORMATE |
| 2829 | 36 | CAPROIC ACID |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2830 | 27 | LITHIUM FERROSILICON |
| 2831 | 34 | 1,1,1-TRICHLOROETHANE |
| 2834 | 37 | PHOSPHOROUS ACID |
| 2835 | 26 | SODIUM ALUMINIUM HYDRIDE |
| 2837 | 37 | BISULPHATES, AQUEOUS SOLUTION |
| 2838 | 18P | VINYL BUTYRATE, STABILIZED |
| 2839 | 36 | ALDOL |
| 2840 | 19 | BUTYRALDOXIME |
| 2841 | 19 | DI-n-AMYLAMINE |
| 2842 | 17D | NITROETHANE |
| 2844 | 26 | CALCIUM MANGANESE SILICON |
| 2845 | 23 | PYROPHORIC LIQUID, ORGANIC, N.O.S. |
| 2846 | 23 | PYROPHORIC SOLID, ORGANIC, N.O.S. |
| 2849 | 36 | 3-CHLOROPROPANOL-1 |
| 2850 | 15 | PROPYLENE TETRAMER |
| 2851 | 40 | BORON TRIFLUORIDE DIHYDRATE |
| 2852 | 52 | DIPICRYL SULPHIDE, WETTED |
| 2853 | 34 | MAGNESIUM FLUOROSILICATE |
| 2854 | 37 | AMMONIUM FLUOROSILICATE |
| 2855 | 37 | ZINC FLUOROSILICATE |
| 2856 | 34 | FLUOROSILICATES, N.O.S. |
| 2857 | 06 | REFRIGERATING MACHINES |
| 2858 | 29 | ZIRCONIUM, DRY |
| 2859 | 37 | AMMONIUM METAVANADATE |
| 2860* | 37 | VANADIUM TRIOXIDE |
| 2861 | 34 | AMMONIUM POLYVANADATE |
| 2862 | 34 | VANADIUM PENTOXIDE |
| 2863 | 37 | SODIUM AMMONIUM VANADATE |
| 2864 | 34 | POTASSIUM METAVANADATE |
| 2865 | 37 | HYDROXYLAMINE SULPHATE |
| 2867* | 15 | INK |
| 2868* | 15 | RESIN |
| 2869 | 40 | TITANIUM TRICHLORIDE MIXTURE |
| 2870 | 25 | ALUMINIUM BOROHYDRIDE or ALUMINIUM BOROHYDRIDE IN DEVICES |
| 2871 | 29 | ANTIMONY POWDER |
| 2872 | 36 | DIBROMOCHLOROPROPANES |
| 2873 | 36 | DIBUTYLAMINOETHANOL |
| 2874 | 36 | FURFURYL ALCOHOL |
| 2875 | 34 | HEXACHLOROPHENE |
| 2876 | 36 | RESORCINOL |
| 2877* | 36 | THIOUREA |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2878 | 29 | TITANIUM SPONGE GRANULES or TITANIUM SPONGE POWDERS |
| 2879 | 40 | SELENIUM OXYCHLORIDE |
| 2880 | 31 | CALCIUM HYPOCHLORITE, HYDRATED or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE |
| 2881 | 29D | METAL CATALYST, DRY |
| 2883* | 32 | 2,2-DI-(tert-BUTYLPEROXY) PROPANE |
| 2884* | 32 | 2,2-DI-(tert-BUTYLPEROXY) PROPANE |
| 2885* | 32 | 2,2-DI-(tert-BUTYLPEROXY) PROPANE |
| 2886* | 33 | tert-BUTYL-PEROXY-2-ETHYL HEXANOATE |
| 2887* | 32 | tert-BUTYL-PEROXY-2-ETHYL HEXANOATE |
| 2888* | 33 | tert-BUTYL-PEROXY-(2-ETHYL) HEXANOATE |
| 2889* | 33 | DI-ISO-TRIDECYL PEROXYDICARBONATE |
| 2890* | 32 | tert-BUTYL PEROXYBENZOATE |
| 2891* | 33 | tert-AMYL PEROXYNEODECANOATE |
| 2892* | 33 | DIMYRISTYL PEROXYDICARBONATE |
| 2893* | 32 | DILAUROYL PEROXIDE |
| 2894* | 33 | DI-(4-tert-BUTYL CYCLOHEXYL) PEROXYDICARBONATE |
| 2895* | 33 | DICETYL PEROXYDICARBONATE |
| 2896* | 32 | CYCLOHEXANONE PEROXIDE |
| 2897* | 32 | 1,2-DI-(tert-BUTYLPEROXY) CYCLOHEXANE |
| 2898* | 33 | tert-AMYL PEROXY-2-ETHYLHEXANOATE |
| 2899* | 32 | ORGANIC PEROXIDES |
| 2900 | 41 | INFECTIOUS SUBSTANCE, AFFECTING ANIMALS |
| 2901 | 12 | BROMINE CHLORIDE |
| 2902 | 34 | PESTICIDE, LIQUID, TOXIC, N.O.S. |
| 2903 | 17 | PESTICIDE, LIQUID, TOXIC, FLAMMABLE, N.O.S. |
| 2904 | 37 | CHLOROPHENOLATES, LIQUID or PHENOLATES, LIQUID |
| 2905 | 37 | CHLOROPHENOLATES, SOLID or PHENOLATES, SOLID |
| 2906* | 15 | TRIISOCYANATOISOCYANURATE OF ISOPHORONEDIISOCYANATE, SOLUTION |
| 2907 | 52 | ISOSORBIDE DINITRATE MIXTURE |
| 2908 | 42 | RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - EMPTY PACKAGING |
| 2909 | 43 | RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - ARTICLES MANUFACTURED FROM NATURAL URANIUM or DEPLETED URANIUM or NATURAL THORIUM |
| 2910 | 43 | RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - LIMITED QUANTITY OF MATERIAL |
| 2911 | 43 | RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - INSTRUMENTS or ARTICLES |
| 2912 | 43 | RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I) |
| 2913 | 42 | RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-I or SCO-II) |
| 2915 | 42 | RADIOACTIVE MATERIAL, TYPE A PACKAGE |
| 2916 | 42 | RADIOACTIVE MATERIAL, TYPE B(U) PACKAGE |
| 2917 | 42 | RADIOACTIVE MATERIAL, TYPE B(M) PACKAGE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2918* | 42 | RADIOACTIVE MATERIAL, FISSILE, N.O.S. |
| 2919 | 42 | RADIOACTIVE MATERIAL, TRANSPORTED UNDER SPECIAL ARRANGEMENT |
| 2920 | 18 | CORROSIVE LIQUID, FLAMMABLE, N.O.S. |
| 2921 | 36 | CORROSIVE SOLID, FLAMMABLE, N.O.S. |
| 2922 | 37 | CORROSIVE LIQUID, TOXIC, N.O.S. |
| 2923 | 37 | CORROSIVE SOLID, TOXIC, N.O.S. |
| 2924 | 18 | FLAMMABLE LIQUID, CORROSIVE, N.O.S. |
| 2925 | 36 | FLAMMABLE SOLID, CORROSIVE, ORGANIC, N.O.S. |
| 2926 | 20 | FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. |
| 2927 | 36 | TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. |
| 2928 | 36 | TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S. |
| 2929 | 17 | TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S. |
| 2930 | 20 | TOXIC SOLID, FLAMMABLE, ORGANIC, N.O.S. |
| 2931 | 34 | VANADYL SULPHATE |
| 2933 | 19 | METHYL 2-CHLOROPROPIONATE |
| 2934 | 19 | ISOPROPYL 2-CHLOROPROPIONATE |
| 2935 | 19 | ETHYL 2-CHLOROPROPIONATE |
| 2936 | 36 | THIOLACTIC ACID |
| 2937 | 36 | alpha-METHYLBENZYL ALCOHOL, LIQUID |
| 2938* | 36 | METHYL BENZOATE |
| 2940 | 23 | 9-PHOSPHABICYCLONONANES (CYCLOOCTADIENE PHOSPHINES) |
| 2941 | 36 | FLUOROANILINES |
| 2942 | 36 | 2-TRIFLUOROMETHYLANILINE |
| 2943 | 17 | TETRAHYDROFURFURYLAMINE |
| 2944* | 36 | 4-FLUOROANILINE |
| 2945 | 18 | N-METHYLBUTYLAMINE |
| 2946 | 36 | 2-AMINO-5-DIETHYLAMINOPENTANE |
| 2947 | 17 | ISOPROPYL CHLOROACETATE |
| 2948 | 36 | 3-TRIFLUOROMETHYLANILINE |
| 2949 | 37 | SODIUM HYDROSULPHIDE |
| 2950 | 26 | MAGNESIUM GRANULES, COATED |
| 2951* | 20 | DIPHENYLOXIDE-4,4'-DISULPHOHYDRAZIDE |
| 2952* | 21 | AZODIISOBUTYRONITRILE |
| 2953* | 20 | 2,2'-AZODI-(2,4-DIMETHYL VALERONITRILE) |
| 2954* | 20 | 1,1'-AZODI-(HEXAHYDROBENZONITRILE) |
| 2955* | 20 | 1,1'-AZODI-(2,4-DIMETHYL-4-METHOXYVALERONITRILE) |
| 2956 | 52 | 5-tert-BUTYL-2,4,6-TRINITRO-m-XYLENE (MUSK XYLENE) |
| 2957* | 33 | tert-AMYL PEROXYPIVALATE |
| 2958* | 33 | DIPEROXY AZELAIC ACID |
| 2959* | 32 | 2,5-DIMETHYL-2,5-DI-(BENZOYLPEROXY) HEXANE |
| 2960* | 33 | DI-(2-ETHYLHEXYL) PEROXYDICARBONATE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 2961* | 33 | 2,4,4-TRIMETHYLPENTYL-2-PEROXY PHENOXY ACETATE |
| 2962* | 33 | DISUCCINIC ACID PEROXIDE |
| 2963* | 33 | CUMYL PEROXYNEODECANOATE |
| 2964* | 33 | CUMYL PEROXYPIVALATE |
| 2965 | 26 | BORON TRIFLUORIDE DIMETHYL ETHERATE |
| 2966 | 36 | THIOGLYCOL |
| 2967 | 37 | SULPHAMIC ACID |
| 2968 | 25 | MANEB, STABILIZED or MANEB PREPARATION, STABILIZED |
| 2969 | 35 | CASTOR BEANS or CASTOR MEAL or CASTOR POMACE or CASTOR FLAKE |
| 2970* | 20 | BENZENE SULPHOHYDRAZIDE |
| 2971* | 20 | BENZENE-1,3-DISULPHOHYDRAZIDE |
| 2972* | 21 | N,N'-DINITROSO-PENTAMETHYLENE TETRAMINE |
| 2973* | 21 | N,N'-DINITROSO-N,N'-DIMETHYL TEREPHTHALIMIDE |
| 2974* | 42 | RADIOACTIVE MATERIAL, SPECIAL FORM, N.O.S. |
| 2975* | 45 | THORIUM METAL, PYROPHORIC |
| 2976* | 44 | THORIUM NITRATE, SOLID |
| 2977 | 46 | RADIOACTIVE MATERIAL, URANIUM HEXAFLUORIDE, FISSILE |
| 2978 | 46 | RADIOACTIVE MATERIAL, URANIUM HEXAFLUORIDE |
| 2979* | 45 | URANIUM METAL, PYROPHORIC |
| 2980* | 42 | URANYL NITRATE HEXAHYDRATE SOLUTION |
| 2981* | 44 | URANYL NITRATE, SOLID |
| 2982* | 42 | RADIOACTIVE MATERIAL, N.O.S. |
| 2983 | 16P | ETHYLENE OXIDE AND PROPYLENE OXIDE MIXTURE |
| 2984 | 31 | HYDROGEN PEROXIDE, AQUEOUS SOLUTION |
| 2985 | 25 | CHLOROSILANES, FLAMMABLE, CORROSIVE, N.O.S. |
| 2986 | 25 | CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S. |
| 2987 | 39 | CHLOROSILANES, CORROSIVE, N.O.S. |
| 2988 | 26 | CHLOROSILANES, WATER-REACTIVE, FLAMMABLE, CORROSIVE, N.O.S. |
| 2989 | 20 | LEAD PHOSPHITE, DIBASIC |
| 2990 | 47 | LIFE-SAVING APPLIANCES, SELF-INFLATING |
| 2991 | 17 | CARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 2992 | 34 | CARBAMATE PESTICIDE, LIQUID, TOXIC |
| 2993 | 17 | ARSENICAL PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 2994 | 34 | ARSENICAL PESTICIDE, LIQUID, TOXIC |
| 2995 | 19 | ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 2996 | 34 | ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC |
| 2997 | 17 | TRIAZINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 2998 | 34 | TRIAZINE PESTICIDE, LIQUID, TOXIC |
| 2999* | 17 | PHENOXY PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 30XY | 47 | HAZARDOUS WASTE |
| 3000* | 35 | PHENOXY PESTICIDE, LIQUID, TOXIC |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 3001* | 17 | PHENYL UREA PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 3002* | 34 | PHENYL UREA PESTICIDE, LIQUID, TOXIC |
| 3003* | 17 | BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 3004* | 34 | BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC |
| 3005 | 17 | THIOCARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 3006 | 34 | THIOCARBAMATE PESTICIDE, LIQUID, TOXIC |
| 3007* | 17 | PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 3008* | 34 | PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC |
| 3009 | 17 | COPPER BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 3010 | 34 | COPPER BASED PESTICIDE, LIQUID, TOXIC |
| 3011 | 17 | MERCURY BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 3012 | 34 | MERCURY BASED PESTICIDE, LIQUID, TOXIC |
| 3013 | 19 | SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 3014 | 36 | SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC |
| 3015 | 17 | BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 3016 | 34 | BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC |
| 3017 | 17 | ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 3018 | 35 | ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC |
| 3019 | 17 | ORGANOTIN PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 3020 | 36 | ORGANOTIN PESTICIDE, LIQUID, TOXIC |
| 3021 | 16 | PESTICIDE, LIQUID, FLAMMABLE, TOXIC, N.O.S. |
| 3022 | 14P | 1,2-BUTYLENE OXIDE, STABILIZED |
| 3023 | 17 | 2-METHYL-2-HEPTANETHIOL |
| 3024 | 16 | COUMARIN DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 3025 | 17 | COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 3026 | 34 | COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC |
| 3027 | 34 | COUMARIN DERIVATIVE PESTICIDE, SOLID, TOXIC |
| 3028 | 37 | BATTERIES, DRY, CONTAINING POTASSIUM HYDROXIDE SOLID |
| 3030* | 20 | 2,2'-AZODI-(2,METHYLBUTYRONITRILE) |
| 3031* | 21 | SELF-REACTIVE SUBSTANCES, SAMPLES, N.O.S. |
| 3032* | 21 | SELF-REACTIVE SUBSTANCES, TRIAL QUANTITIES, N.O.S. |
| 3033* | 21 | 3-CHLORO-4-DIETHYLAMINOBENZENE-DIAZONIUM ZINC CHLORIDE |
| 3034* | 21 | 4-DIPROPYLAMINO-BENZENE-DIAZONIUM ZINC CHLORIDE |
| 3035* | 22 | 3-(2-HYDROXYETHOXY)-4-PYRROLIDIN-1-YL-BENZENE-DIAZONIUM ZINC CHLORIDE |
| 3036* | 20 | 2,5-DIETHOXY-4-MORPHOLINOBENZENE-DIAZONIUM ZINC CHLORIDE |
| 3037* | 20 | 4-[BENZYL(ETHYL)AMINO]-3-ETHOXY-BENZENE-DIAZONIUM ZINC CHLORIDE |
| 3038* | 20 | 4-[BENZYL(METHYL)AMINO]-3-ETHOXY-BENZENE-DIAZONIUM ZINC CHLORIDE |
| 3039* | 22 | 4-DIMETHYLAMINO-6-(2-DIMETHYLAMINOETHOXY) TOLUENE-2-DIAZONIUM ZINC CHLORIDE |
| 3040* | 21 | SODIUM-2-DIAZO-1-NAPHTHOL-4-SULPHONATE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 3041* | 21 | SODIUM-2-DIAZO-1-NAPHTHOL-5-SULPHONATE |
| 3042* | 21 | 2'DIAZO-1-1-NAPHTHIDE-4-SULPHOCHORIDE |
| 3043* | 21 | 2'DIAZO-1-1-NAPHTHIDE-5-SULPHOCHORIDE |
| 3044* | 32 | tert-AMYLPEROXYBENZOATE |
| 3045* | 32 | PEROXYACETIC ACID |
| 3046* | 33 | METHYLCYCLOHEXANONE PEROXIDES |
| 3047* | 33 | tert-BUTYL PEROXYPIVALATE |
| 3048 | 27 | ALUMINIUM PHOSPHIDE PESTICIDE |
| 3049* | 26 | METAL ALKYL HALIDES, WATER-REACTIVE, N.O.S. or METAL ARYL HALIDES, WATER-REACTIVE, N.O.S. |
| 3050* | 26 | METAL ALKYL HYDRIDES, WATER-REACTIVE, N.O.S. or METAL ARYL HYDRIDES, WATER-REACTIVE, N.O.S. |
| 3051* | 25 | ALUMINIUM ALKYLS |
| 3052* | 25 | ALUMINIUM ALKYL HALIDES, LIQUID |
| 3053* | 25 | MAGNESIUM ALKYLS |
| 3054 | 17 | CYCLOHEXYL MERCAPTAN |
| 3055 | 36 | 2-(2-AMINOETHOXY)ETHANOL |
| 3056 | 19 | n-HEPTALDEHYDE |
| 3057 | 07 | TRIFLUOROACETYL CHLORIDE |
| 3058* | 32 | DI-(2-PHENOXYETHYL)-PEROXYDICARBONATE |
| 3059* | 32 | DI-(2-PHENOXYETHYL)-PEROXYDICARBONATE |
| 3060* | 32 | 2,5-DIMETHYL-2,5-DI-(3,5,5-TRIETHYL HEXANOYLPEROXY)-HEXANE |
| 3061* | 32 | ACETYL ACETONE PEROXIDE |
| 3062* | 32 | tert-BUTYLPEROXY STEARYL CARBONATE |
| 3063* | 33 | DIPEROXY DODECANE DIACID |
| 3064 | 52 | NITROGLYCERIN, SOLUTION IN ALCOHOL |
| 3065 | 14 | ALCOHOLIC BEVERAGES |
| 3066 | 36 | PAINT or PAINT RELATED MATERIAL |
| 3067* | 32 | tert-AMYL HYDROPEROXIDE |
| 3068* | 32 | METHYL ETHYL KETONE PEROXIDES |
| 3069* | 32 | 1,1-DI-(4-tert-BUTYLPEROXY) CYCLOHEXANE |
| 3070 | 07 | ETHYLENE OXIDE AND DICHLORODIFLUOROMETHANE MIXTURE |
| 3071 | 16 | MERCAPTANS, LIQUID, TOXIC, FLAMMABLE, N.O.S. or MERCAPTAN MIXTURE, LIQUID, TOXIC, FLAMMABLE, N.O.S. |
| 3072 | 47 | LIFE-SAVING APPLIANCES, NOT SELF-INFLATING |
| 3073 | 18P | VINYLPYRIDINES, STABILIZED |
| 3076* | 26 | ALUMINIUM ALKYL HYDRIDES |
| 3077 | 47 | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| 3078 | 26 | CERIUM |
| 3079 | 16P | METHACRYLONITRILE, STABILIZED |
| 3080 | 38 | ISOCYANATES, TOXIC, FLAMMABLE, N.O.S. or ISOCYANATE SOLUTION, TOXIC, |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| | | FLAMMABLE, N.O.S. |
| 3082 | 47 | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| 3083 | 12 | PERCHLORYL FLUORIDE |
| 3084 | 31 | CORROSIVE SOLID, OXIDIZING, N.O.S. |
| 3085 | 31 | OXIDIZING SOLID, CORROSIVE, N.O.S. |
| 3086 | 31 | TOXIC SOLID, OXIDIZING, N.O.S. |
| 3087 | 31 | OXIDIZING SOLID, TOXIC, N.O.S. |
| 3088 | 23 | SELF-HEATING SOLID, ORGANIC, N.O.S. |
| 3089 | 29 | METAL POWDER, FLAMMABLE, N.O.S. |
| 3090 | 26 | LITHIUM METAL BATTERIES |
| 3091 | 26 | LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT or LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT |
| 3092 | 16 | 1-METHOXY-2-PROPANOL |
| 3093 | 31 | CORROSIVE LIQUID, OXIDIZING, N.O.S. |
| 3094 | 26 | CORROSIVE LIQUID, WATER-REACTIVE, N.O.S. |
| 3095 | 23 | CORROSIVE SOLID, SELF-HEATING, N.O.S. |
| 3096 | 26 | CORROSIVE SOLID, WATER-REACTIVE, N.O.S. |
| 3097 | 31 | FLAMMABLE SOLID, OXIDIZING, N.O.S. |
| 3098 | 31 | OXIDIZING LIQUID, CORROSIVE, N.O.S. |
| 3099 | 31 | OXIDIZING LIQUID, TOXIC, N.O.S. |
| 3100 | 31 | OXIDIZING SOLID, SELF-HEATING, N.O.S. |
| 3101 | 32 | ORGANIC PEROXIDE TYPE B, LIQUID |
| 3102 | 32 | ORGANIC PEROXIDE TYPE B, SOLID |
| 3103 | 32 | ORGANIC PEROXIDE TYPE C, LIQUID |
| 3104 | 32 | ORGANIC PEROXIDE TYPE C, SOLID |
| 3105 | 32 | ORGANIC PEROXIDE TYPE D, LIQUID |
| 3106 | 32 | ORGANIC PEROXIDE TYPE D, SOLID |
| 3107 | 32 | ORGANIC PEROXIDE TYPE E, LIQUID |
| 3108 | 32 | ORGANIC PEROXIDE TYPE E, SOLID |
| 3109 | 32 | ORGANIC PEROXIDE TYPE F, LIQUID |
| 3110 | 32 | ORGANIC PEROXIDE TYPE F, SOLID |
| 3111 | 33 | ORGANIC PEROXIDE TYPE B, LIQUID, TEMPERATURE CONTROLLED |
| 3112 | 33 | ORGANIC PEROXIDE TYPE B, SOLID, TEMPERATURE CONTROLLED |
| 3113 | 33 | ORGANIC PEROXIDE TYPE C, LIQUID, TEMPERATURE CONTROLLED |
| 3114 | 33 | ORGANIC PEROXIDE TYPE C, SOLID, TEMPERATURE CONTROLLED |
| 3115 | 33 | ORGANIC PEROXIDE TYPE D, LIQUID, TEMPERATURE CONTROLLED |
| 3116 | 33 | ORGANIC PEROXIDE TYPE D, SOLID, TEMPERATURE CONTROLLED |
| 3117 | 33 | ORGANIC PEROXIDE TYPE E, LIQUID, TEMPERATURE CONTROLLED |
| 3118 | 33 | ORGANIC PEROXIDE TYPE E, SOLID, TEMPERATURE CONTROLLED |
| 3119 | 33 | ORGANIC PEROXIDE TYPE F, LIQUID, TEMPERATURE CONTROLLED |
| 3120 | 33 | ORGANIC PEROXIDE TYPE F, SOLID, TEMPERATURE CONTROLLED |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 3121 | 28 | OXIDIZING SOLID, WATER-REACTIVE, N.O.S. |
| 3122 | 31 | TOXIC LIQUID, OXIDIZING, N.O.S. |
| 3123 | 26 | TOXIC LIQUID, WATER-REACTIVE, N.O.S. |
| 3124 | 23 | TOXIC SOLID, SELF-HEATING, N.O.S. |
| 3125 | 26 | TOXIC SOLID, WATER-REACTIVE, N.O.S. |
| 3126 | 23 | SELF-HEATING SOLID, CORROSIVE, ORGANIC, N.O.S. |
| 3127 | 23 | SELF-HEATING SOLID, OXIDIZING, N.O.S. |
| 3128 | 23 | SELF-HEATING SOLID, TOXIC, ORGANIC, N.O.S. |
| 3129 | 26 | WATER-REACTIVE LIQUID, CORROSIVE, N.O.S. |
| 3130 | 26 | WATER-REACTIVE LIQUID, TOXIC, N.O.S. |
| 3131 | 26 | WATER-REACTIVE SOLID, CORROSIVE, N.O.S. |
| 3132 | 26 | WATER-REACTIVE SOLID, FLAMMABLE, N.O.S. |
| 3133 | 26 | WATER-REACTIVE SOLID, OXIDIZING, N.O.S. |
| 3134 | 26 | WATER-REACTIVE SOLID, TOXIC, N.O.S. |
| 3135 | 26 | WATER-REACTIVE SOLID, SELF-HEATING, N.O.S. |
| 3136 | 06 | TRIFLUOROMETHANE, REFRIGERATED LIQUID |
| 3137 | 31 | OXIDIZING SOLID, FLAMMABLE, N.O.S. |
| 3138 | 04 | ETHYLENE, ACETYLENE AND PROPYLENE MIXTURE, REFRIGERATED LIQUID |
| 3139 | 31 | OXIDIZING LIQUID, N.O.S. |
| 3140 | 34 | ALKALOIDS, LIQUID, N.O.S. or ALKALOID SALTS, LIQUID, N.O.S. |
| 3141 | 40 | ANTIMONY COMPOUND, INORGANIC, LIQUID, N.O.S. |
| 3142 | 34 | DISINFECTANT, LIQUID, TOXIC, N.O.S. |
| 3143 | 34 | DYE, SOLID, TOXIC, N.O.S. or DYE INTERMEDIATE, SOLID, TOXIC, N.O.S. |
| 3144 | 34 | NICOTINE COMPOUND, LIQUID, N.O.S. or NICOTINE PREPARATION, LIQUID, N.O.S. |
| 3145 | 36 | ALKYLPHENOLS, LIQUID, N.O.S. |
| 3146 | 36 | ORGANOTIN COMPOUND, SOLID, N.O.S. |
| 3147 | 37 | DYE, SOLID, CORROSIVE, N.O.S. or DYE INTERMEDIATE, SOLID, CORROSIVE, N.O.S. |
| 3148 | 26 | WATER-REACTIVE LIQUID, N.O.S. |
| 3149 | 31 | HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED |
| 3150 | 04 | DEVICES, SMALL, HYDROCARBON GAS POWERED or HYDROCARBON GAS REFILLS FOR SMALL DEVICES |
| 3151 | 48 | POLYHALOGENATED BIPHENYLS, LIQUID or POLYHALOGENATED TERPHENYLS, LIQUID |
| 3152 | 48 | POLYHALOGENATED BIPHENYLS, SOLID or POLYHALOGENATED TERPHENYLS, SOLID |
| 3153 | 04 | PERFLUORO(METHYL VINYL ETHER) |
| 3154 | 04 | PERFLUORO(ETHYL VINYL ETHER) |
| 3155 | 37 | PENTACHLOROPHENOL |
| 3156 | 10 | COMPRESSED GAS, OXIDIZING, N.O.S. |
| 3157 | 10 | LIQUEFIED GAS, OXIDIZING, N.O.S. |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 3158 | 06 | GAS, REFRIGERATED LIQUID, N.O.S. |
| 3159 | 06 | 1,1,1,2-TETRAFLUOROETHANE (REFRIGERANT GAS R 134a) |
| 3160 | 05 | LIQUEFIED GAS, TOXIC, FLAMMABLE, N.O.S. |
| 3161 | 04 | LIQUEFIED GAS, FLAMMABLE, N.O.S. |
| 3162 | 07 | LIQUEFIED GAS, TOXIC, N.O.S. |
| 3163 | 06 | LIQUEFIED GAS, N.O.S. |
| 3164 | 06 | ARTICLES, PRESSURIZED, PNEUMATIC or HYDRAULIC |
| 3165 | 18 | AIRCRAFT HYDRAULIC POWER UNIT FUEL TANK |
| 3166 | 14 | ENGINE, INTERNAL COMBUSTION or VEHICLE, FLAMMABLE GAS, POWERED or VEHICLE, FLAMMABLE LIQUID, POWERED or ENGINE, FUEL CELL, FLAMMABLE GAS POWERED or ENGINE, FUEL CELL, FLAMMABLE LIQUID POWERED or VEHICLE, FUEL CELL, FLAMMABLE GAS, POWERED or VEHICLE, FUEL CELL, FLAMMABLE LIQUID, POWERED |
| 3167 | 04 | GAS SAMPLE, NON-PRESSURIZED, FLAMMABLE, N.O.S. |
| 3168 | 05 | GAS SAMPLE, NON-PRESSURIZED, TOXIC, FLAMMABLE, N.O.S. |
| 3169 | 07 | GAS SAMPLE, NON-PRESSURIZED, TOXIC, N.O.S. |
| 3170 | 26 | ALUMINIUM SMELTING BY-PRODUCTS or ALUMINIUM REMELTING BY-PRODUCTS |
| 3171 | 37 | BATTERY-POWERED VEHICLE or BATTERY-POWERED EQUIPMENT |
| 3172 | 36 | TOXINS, EXTRACTED FROM LIVING SOURCES, LIQUID, N.O.S. |
| 3174 | 23 | TITANIUM DISULPHIDE |
| 3175 | 20 | SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. |
| 3176 | 20 | FLAMMABLE SOLID, ORGANIC, MOLTEN, N.O.S. |
| 3178 | 20 | FLAMMABLE SOLID, INORGANIC, N.O.S. |
| 3179 | 20 | FLAMMABLE SOLID, TOXIC, INORGANIC, N.O.S. |
| 3180 | 36 | FLAMMABLE SOLID, CORROSIVE, INORGANIC, N.O.S. |
| 3181 | 20 | METAL SALTS OF ORGANIC COMPOUNDS, FLAMMABLE, N.O.S. |
| 3182 | 29 | METAL HYDRIDES, FLAMMABLE, N.O.S. |
| 3183 | 23 | SELF-HEATING LIQUID, ORGANIC, N.O.S. |
| 3184 | 23 | SELF-HEATING LIQUID, TOXIC, ORGANIC, N.O.S. |
| 3185 | 23 | SELF-HEATING LIQUID, CORROSIVE, ORGANIC, N.O.S. |
| 3186 | 23 | SELF-HEATING LIQUID, INORGANIC, N.O.S. |
| 3187 | 23 | SELF-HEATING LIQUID, TOXIC, INORGANIC, N.O.S. |
| 3188 | 23 | SELF-HEATING LIQUID, CORROSIVE, INORGANIC, N.O.S. |
| 3189 | 23 | METAL POWDER, SELF-HEATING, N.O.S. |
| 3190 | 23 | SELF-HEATING SOLID, INORGANIC, N.O.S. |
| 3191 | 23 | SELF-HEATING SOLID, TOXIC, INORGANIC, N.O.S. |
| 3192 | 23 | SELF-HEATING SOLID, CORROSIVE, INORGANIC, N.O.S. |
| 3194 | 23 | PYROPHORIC LIQUID, INORGANIC, N.O.S. |
| 3200 | 23 | PYROPHORIC SOLID, INORGANIC, N.O.S. |
| 3203* | 23 | PYROPHORIC ORGANOMETALLIC COMPOUND, WATER-REACTIVE, N.O.S. |
| 3205 | 38 | ALKALINE EARTH METAL ALCOHOLATES, N.O.S. |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 3206 | 38 | ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S. |
| 3207* | 26 | ORGANOMETALLIC COMPOUND or COMPOUND SOLUTION or COMPOUND DISPERSION, WATER-REACTIVE, FLAMMABLE, N.O.S. |
| 3208 | 26 | METALLIC SUBSTANCE, WATER-REACTIVE, N.O.S. |
| 3209 | 26 | METALLIC SUBSTANCE, WATER-REACTIVE, SELF-HEATING, N.O.S. |
| 3210 | 31 | CHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. |
| 3211 | 31 | PERCHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. |
| 3212 | 31 | HYPOCHLORITES, INORGANIC, N.O.S. |
| 3213 | 31 | BROMATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. |
| 3214 | 31 | PERMANGANATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. |
| 3215 | 31 | PERSULPHATES, INORGANIC, N.O.S. |
| 3216 | 31 | PERSULPHATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. |
| 3217* | 29 | PERCARBONATES, INORGANIC, N.O.S. |
| 3218 | 31 | NITRATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. |
| 3219 | 31 | NITRITES, INORGANIC, AQUEOUS SOLUTION, N.O.S. |
| 3220 | 06 | PENTAFLUOROETHANE (REFRIGERANT GAS R 125) |
| 3221 | 21 | SELF-REACTIVE LIQUID TYPE B |
| 3222 | 21 | SELF-REACTIVE SOLID TYPE B |
| 3223 | 21 | SELF-REACTIVE LIQUID TYPE C |
| 3224 | 21 | SELF-REACTIVE SOLID TYPE C |
| 3225 | 21 | SELF-REACTIVE LIQUID TYPE D |
| 3226 | 21 | SELF-REACTIVE SOLID TYPE D |
| 3227 | 21 | SELF-REACTIVE LIQUID TYPE E |
| 3228 | 21 | SELF-REACTIVE SOLID TYPE E |
| 3229 | 21 | SELF-REACTIVE LIQUID TYPE F |
| 3230 | 21 | SELF-REACTIVE SOLID TYPE F |
| 3231 | 22 | SELF-REACTIVE LIQUID TYPE B, TEMPERATURE CONTROLLED |
| 3232 | 22 | SELF-REACTIVE SOLID TYPE B, TEMPERATURE CONTROLLED |
| 3233 | 22 | SELF-REACTIVE LIQUID TYPE C, TEMPERATURE CONTROLLED |
| 3234 | 22 | SELF-REACTIVE SOLID TYPE C, TEMPERATURE CONTROLLED |
| 3235 | 22 | SELF-REACTIVE LIQUID TYPE D, TEMPERATURE CONTROLLED |
| 3236 | 22 | SELF-REACTIVE SOLID TYPE D, TEMPERATURE CONTROLLED |
| 3237 | 22 | SELF-REACTIVE LIQUID TYPE E, TEMPERATURE CONTROLLED |
| 3238 | 22 | SELF-REACTIVE SOLID TYPE E, TEMPERATURE CONTROLLED |
| 3239 | 22 | SELF-REACTIVE LIQUID TYPE F, TEMPERATURE CONTROLLED |
| 3240 | 22 | SELF-REACTIVE SOLID TYPE F, TEMPERATURE CONTROLLED |
| 3241 | 36 | 2-BROMO-2-NITROPROPANE-1,3-DIOL |
| 3242 | 21 | AZODICARBONAMIDE |
| 3243 | 34 | SOLIDS CONTAINING TOXIC LIQUID, N.O.S. |
| 3244 | 37 | SOLIDS CONTAINING CORROSIVE LIQUID, N.O.S. |
| 3245 | 47 | GENETICALLY MODIFIED MICROORGANISMS or GENETICALLY MODIFIED ORGANISMS |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 3246 | 39 | METHANESULPHONYL CHLORIDE |
| 3247 | 31 | SODIUM PEROXOBORATE, ANHYDROUS |
| 3248 | 16 | MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S. |
| 3249 | 34 | MEDICINE, SOLID, TOXIC, N.O.S. |
| 3250 | 36 | CHLOROACETIC ACID, MOLTEN |
| 3251 | 20 | ISOSORBIDE-5-MONONITRATE |
| 3252 | 04 | DIFLUOROMETHANE (REFRIGERANT GAS R 32) |
| 3253 | 37 | DISODIUM TRIOXOSILICATE |
| 3254 | 25 | TRIBUTYLPHOSPHANE |
| 3255 | 25 | tert-BUTYL HYPOCHLORITE |
| 3256 | 15 | ELEVATED TEMPERATURE LIQUID, FLAMMABLE, N.O.S. |
| 3257 | 15 | ELEVATED TEMPERATURE LIQUID, N.O.S. |
| 3258 | 47 | ELEVATED TEMPERATURE SOLID, N.O.S. |
| 3259 | 37 | AMINES, SOLID, CORROSIVE, N.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S. |
| 3260 | 37 | CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. |
| 3261 | 37 | CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. |
| 3262 | 37 | CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. |
| 3263 | 37 | CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. |
| 3264 | 37 | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. |
| 3265 | 37 | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. |
| 3266 | 37 | CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. |
| 3267 | 37 | CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. |
| 3268 | 47 | AIR-BAG INFLATORS, or AIR-BAG MODULES, or SEAT-BELT PRETENSIONERS |
| 3269 | 15 | POLYESTER RESIN KIT |
| 3270 | 52 | NITROCELLULOSE MEMBRANE FILTERS |
| 3271 | 14 | ETHERS, N.O.S. |
| 3272 | 14 | ESTERS, N.O.S. |
| 3273 | 16 | NITRILES, FLAMMABLE, TOXIC, N.O.S. |
| 3274 | 16 | ALCOHOLATES SOLUTION, N.O.S. |
| 3275 | 16 | NITRILES, TOXIC, FLAMMABLE, N.O.S. |
| 3276 | 35 | NITRILES, TOXIC, LIQUID, N.O.S. |
| 3277 | 36 | CHLOROFORMATES, TOXIC, CORROSIVE, N.O.S. |
| 3278 | 35 | ORGANOPHOSPHORUS COMPOUND, TOXIC, N.O.S. |
| 3279 | 38 | ORGANOPHOSPHORUS COMPOUND, TOXIC, FLAMMABLE, N.O.S. |
| 3280 | 36 | ORGANOARSENIC COMPOUND, LIQUID,N.O.S. |
| 3281 | 36 | METAL CARBONYLS, LIQUID, N.O.S. |
| 3282 | 34 | ORGANOMETALLIC COMPOUND, TOXIC, LIQUID, N.O.S. |
| 3283 | 34 | SELENIUM COMPOUND, SOLID, N.O.S. |
| 3284 | 34 | TELLURIUM COMPOUND, N.O.S. |
| 3285 | 34 | VANADIUM COMPOUND, N.O.S. |
| 3286 | 18 | FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 3287 | 34 | TOXIC LIQUID, INORGANIC, N.O.S. |
| 3288 | 34 | TOXIC SOLID, INORGANIC, N.O.S. |
| 3289 | 37 | TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S. |
| 3290 | 37 | TOXIC SOLID, CORROSIVE, INORGANIC, N.O.S. |
| 3291 | 41 | CLINICAL WASTE, UNSPECIFIED, N.O.S. or (BIO) MEDICAL WASTE, N.O.S. or REGULATED MEDICAL WASTE, N.O.S. |
| 3292 | 26 | BATTERIES, CONTAINING SODIUM or CELLS, CONTAINING SODIUM |
| 3293 | 34 | HYDRAZINE, AQUEOUS SOLUTION |
| 3294 | 16 | HYDROGEN CYANIDE, SOLUTION IN ALCOHOL |
| 3295 | 14 | HYDROCARBONS, LIQUID, N.O.S. |
| 3296 | 08 | HEPTAFLUOROPROPANE (REFRIGERANT GAS R 227) |
| 3297 | 06 | ETHYLENE OXIDE AND CHLOROTETRAFLUOROETHANE MIXTURE |
| 3298 | 06 | ETHYLENE OXIDE AND PENTAFLUOROETHANE MIXTURE |
| 3299 | 06 | ETHYLENE OXIDE AND TETRAFLUOROETHANE MIXTURE |
| 3300 | 05D | ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE |
| 3301 | 25 | CORROSIVE LIQUID, SELF-HEATING, N.O.S. |
| 3302 | 36 | 2-DIMETHYLAMINOETHYL ACRYLATE |
| 3303 | 12 | COMPRESSED GAS, TOXIC, OXIDIZING, N.O.S. |
| 3304 | 07 | COMPRESSED GAS, TOXIC, CORROSIVE, N.O.S. |
| 3305 | 05 | COMPRESSED GAS, TOXIC, FLAMMABLE, CORROSIVE, N.O.S. |
| 3306 | 12 | COMPRESSED GAS, TOXIC, OXIDIZING, CORROSIVE, N.O.S. |
| 3307 | 12 | LIQUEFIED GAS, TOXIC, OXIDIZING, N.O.S. |
| 3308 | 07 | LIQUEFIED GAS, TOXIC, CORROSIVE, N.O.S. |
| 3309 | 05 | LIQUEFIED GAS, TOXIC, FLAMMABLE, CORROSIVE, N.O.S. |
| 3310 | 12 | LIQUEFIED GAS, TOXIC, OXIDIZING, CORROSIVE, N.O.S. |
| 3311 | 10 | GAS, REFRIGERATED LIQUID, OXIDIZING, N.O.S. |
| 3312 | 04 | GAS, REFRIGERATED LIQUID, FLAMMABLE, N.O.S. |
| 3313 | 23 | ORGANIC PIGMENTS, SELF-HEATING |
| 3314 | 20 | PLASTICS MOULDING COMPOUND |
| 3315 | 34 | CHEMICAL SAMPLE, TOXIC |
| 3316 | 47 | CHEMICAL KIT or FIRST AID KIT |
| 3317 | 52 | 2-AMINO-4,6-DINITROPHENOL, WETTED |
| 3318 | 36 | AMMONIA SOLUTION |
| 3319 | 52 | NITROGLYCERIN MIXTURE, DESENSITIZED, SOLID, N.O.S. |
| 3320 | 37 | SODIUM BOROHYDRIDE AND SODIUM HYDROXIDE SOLUTION |
| 3321 | 43 | RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) |
| 3322 | 43 | RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-III) |
| 3323 | 43 | RADIOACTIVE MATERIAL, TYPE C PACKAGE |
| 3324 | 43 | RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II), FISSILE |
| 3325 | 43 | RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-III), FISSILE |
| 3326 | 42 | RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-I or SCO-II), FISSILE |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 3327 | 42 | RADIOACTIVE MATERIAL, TYPE A PACKAGE, FISSILE |
| 3328 | 42 | RADIOACTIVE MATERIAL, TYPE B(U) PACKAGE, FISSILE |
| 3329 | 42 | RADIOACTIVE MATERIAL, TYPE B(M) PACKAGE, FISSILE |
| 3330 | 42 | RADIOACTIVE MATERIAL, TYPE C PACKAGE, FISSILE |
| 3331 | 42 | RADIOACTIVE MATERIAL, TRANSPORTED UNDER SPECIAL ARRANGEMENT, FISSILE |
| 3332 | 42 | RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM |
| 3333 | 42 | RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM, FISSILE |
| 3334 | 47 | AVIATION REGULATED LIQUID, N.O.S. |
| 3335 | 47 | AVIATION REGULATED SOLID, N.O.S. |
| 3336 | 16 | MERCAPTANS, LIQUID, FLAMMABLE, N.O.S. or MERCAPTAN MIXTURE, LIQUID, FLAMMABLE, N.O.S. |
| 3337 | 06 | REFRIGERANT GAS R 404A |
| 3338 | 06 | REFRIGERANT GAS R 407A |
| 3339 | 06 | REFRIGERANT GAS R 407B |
| 3340 | 06 | REFRIGERANT GAS R 407C |
| 3341 | 25 | THIOUREA DIOXIDE |
| 3342 | 25 | XANTHATES |
| 3343 | 52 | NITROGLYCERIN MIXTURE, DESENSITIZED, LIQUID, FLAMMABLE, N.O.S. |
| 3344 | 52 | PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN), MIXTURE, DESENSITIZED, SOLID, N.O.S. |
| 3345 | 35 | PHENOXYACETIC ACID DERIVATIVE PESTICIDE, SOLID, TOXIC |
| 3346 | 16 | PHENOXYACETIC ACID DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 3347 | 17 | PHENOXYACETIC ACID DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 3348 | 35 | PHENOXYACETIC ACID DERIVATIVE PESTICIDE, LIQUID, TOXIC |
| 3349 | 34 | PYRETHROID PESTICIDE, SOLID, TOXIC |
| 3350 | 16 | PYRETHROID PESTICIDE, LIQUID, FLAMMABLE, TOXIC |
| 3351 | 17 | PYRETHROID PESTICIDE, LIQUID, TOXIC, FLAMMABLE |
| 3352 | 34 | PYRETHROID PESTICIDE, LIQUID, TOXIC |
| 3353* | 06 | AIR-BAG INFLATORS, COMPRESSED GAS or AIR-BAG MODULES, COMPRESSED GAS or SEAT-BELT PRETENSIONERS, COMPRESSED GAS |
| 3354 | 05 | INSECTICIDE GAS, FLAMMABLE, N.O.S. |
| 3355 | 05 | INSECTICIDE GAS, TOXIC, FLAMMABLE, N.O.S. |
| 3356 | 31 | OXYGEN GENERATOR, CHEMICAL |
| 3357 | 52 | NITROGLYCERIN MIXTURE, DESENSITIZED, LIQUID, N.O.S. |
| 3358 | 04 | REFRIGERATING MACHINES |
| 3359 | 07 | FUMIGATED CARGO TRANSPORT UNIT |
| 3360 | 20 | FIBRES, VEGETABLE, DRY |
| 3361 | 39 | CHLOROSILANES, TOXIC, CORROSIVE, N.O.S. |
| 3362 | 25 | CHLOROSILANES, TOXIC, CORROSIVE, FLAMMABLE, N.O.S. |
| 3363 | 47 | DANGEROUS GOODS IN MACHINERY or DANGEROUS GOODS IN APPARATUS |
| 3364 | 52 | TRINITROPHENOL (PICRIC ACID) WETTED |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 3365 | 52 | TRINITROCHLOROBENZENE (PICRYL CHLORIDE), WETTED |
| 3366 | 52 | TRINITROTOLUENE (TNT), WETTED |
| 3367 | 52 | TRINITROBENZENE, WETTED |
| 3368 | 52 | TRINITROBENZOIC ACID, WETTED |
| 3369 | 52 | SODIUM DINITRO-o-CRESOLATE, WETTED |
| 3370 | 52 | UREA NITRATE, WETTED |
| 3371 | 15 | 2-METHYLBUTANAL |
| 3372* | 27 | ORGANOMETALLIC COMPOUND, SOLID, WATER-REACTIVE, FLAMMABLE, N.O.S. |
| 3373 | 41 | BIOLOGICAL SUBSTANCE CATEGORY B |
| 3374 | 04D | ACETYLENE, SOLVENT FREE |
| 3375 | 51D | AMMONIUM NITRATE EMULSION or SUSPENSION or GEL |
| 3376 | 52 | 4-NITROPHENYLHYDRAZINE |
| 3377 | 31 | SODIUM PERBORATE MONOHYDRATE |
| 3378 | 31 | SODIUM CARBONATE PEROXYHYDRATE |
| 3379 | 52 | DESENSITIZED EXPLOSIVE, LIQUID, N.O.S. |
| 3380 | 52 | DESENSITIZED EXPLOSIVE, SOLID, N.O.S. |
| 3381 | 34 | TOXIC BY INHALATION LIQUID, N.O.S |
| 3382 | 34 | TOXIC BY INHALATION LIQUID, N.O.S |
| 3383 | 35 | TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. |
| 3384 | 35 | TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. |
| 3385 | 40 | TOXIC BY INHALATION LIQUID, WATER-REACTIVE, N.O.S. |
| 3386 | 40 | TOXIC BY INHALATION LIQUID, WATER-REACTIVE, N.O.S. |
| 3387 | 34 | TOXIC BY INHALATION LIQUID, OXIDIZING, N.O.S. |
| 3388 | 34 | TOXIC BY INHALATION LIQUID, OXIDIZING, N.O.S. |
| 3389 | 37 | TOXIC BY INHALATION LIQUID, CORROSIVE, N.O.S. |
| 3390 | 37 | TOXIC BY INHALATION LIQUID, CORROSIVE, N.O.S. |
| 3391 | 23 | ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC |
| 3392 | 23 | ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC |
| 3393 | 26 | ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC, WATER REACTIVE |
| 3394 | 26 | ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER REACTIVE |
| 3395 | 27 | ORGANOMETALLIC SUBSTANCE, SOLID, WATER REACTIVE |
| 3396 | 27 | ORGANOMETALLIC SUBSTANCE, SOLID, WATER REACTIVE, FLAMMABLE |
| 3397 | 27 | ORGANOMETALLIC SUBSTANCE, SOLID, WATER REACTIVE, SELF-HEATING |
| 3398 | 27 | ORGANOMETALLIC SUBSTANCE, LIQUID, WATER REACTIVE |
| 3399 | 26 | ORGANOMETALLIC SUBSTANCE, LIQUID, WATER REACTIVE, FLAMMABLE |
| 3400 | 25 | ORGANOMETALLIC SUBSTANCE, SOLID, SELF-HEATING |
| 3401 | 26 | ALKALI METAL AMALGAM, SOLID |
| 3402 | 26 | AKLALINE EARTH METAL AMALGAM, SOLID |
| 3403 | 26 | POTASSIUM METAL ALLOYS, SOLID |
| 3404 | 26 | POTASSIUM SODIUM ALLOYS, SOLID |
| 3405 | 31 | BARIUM CHLORATE SOLUTION |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 3406 | 31 | BARIUM PERCHLORATE SOLUTION |
| 3407 | 31 | CHLORATE AND MAGNESIUM CHLORIDE MIXTURE SOLUTION |
| 3408 | 31 | LEAD PERCHLORATE SOLUTION |
| 3409 | 35D | CHLORONITROBENZENES, LIQUID |
| 3410 | 36 | 4-CHLORO-o-TOLUIDINE HYDROCHLORIDE SOLUTION |
| 3411 | 36 | beta-NAPHTYLAMINE SOLUTION |
| 3412 | 36 | FORMIC ACID |
| 3413 | 34 | POTASSIUM CYANIDE SOLUTION |
| 3414 | 40 | SODIUM CYANIDE SOLUTION |
| 3415 | 37 | SODIUM FLUORIDE SOLUTION |
| 3416 | 36 | CHLOROACETPHENONE, LIQUID |
| 3417 | 35 | XYLYL BROMIDE, SOLID |
| 3418 | 36 | 2,4-TOLUYLENEDIAMINE SOLUTION |
| 3419 | 38 | BORON TRIFLUORIDE ACETIC ACID COMPLEX, SOLID |
| 3420 | 39 | BORON TRIFLUORIDE PROPIONIC ACID COMPLEX, SOLID |
| 3421 | 37 | POTASSIUM HYDROGEN DIFLUORIDE SOLUTION |
| 3422 | 37 | POTASSIUM FLUORIDE SOLUTION |
| 3423 | 36 | TETRAMETHYLAMMONIUM HYDROXIDE, SOLID |
| 3424 | 31 | AMMONIUM DINTRO-o-CRESOLATE, SOLUTION |
| 3425 | 39 | BROMOACETIC ACID, SOLID |
| 3426 | 36P | ACRYLAMIDE SOLUTION |
| 3427 | 36 | CHLOROBENZYL CHLORIDES, SOLID |
| 3428 | 39 | 3-CHLORO-4-METHYLPHENYL ISOCYANATE, SOLID |
| 3429 | 36 | CHLOROTOLUIDINES, LIQUID |
| 3430 | 36 | XYLENOLS, LIQUID |
| 3431 | 35 | NITROBENZOTRIFLUOIDES, SOLID |
| 3432 | 48 | POLYCHLORINATED BIPHENYLS, SOLID |
| 3433* | 25 | LITHIUM ALKYLS, SOLID |
| 3434 | 36 | NITROCRESOLS, LIQUID |
| 3435* | 36 | HYDROQUINONE SOLUTION |
| 3436 | 34 | HEXAFLUOROACETONE HYDRATE, SOLID |
| 3437 | 35 | CHLOROCRESOLS, SOLID |
| 3438 | 36 | alpha-METHYLBENZYL ALCOHOL, SOLID |
| 3439 | 35 | NITRILES, TOXIC, SOLID, N.O.S. |
| 3440 | 34 | SELENIUM COMPOUND, LIQUID, N.O.S. |
| 3441 | 36D | CHLORODINITROBENZENES, SOLID |
| 3442 | 36 | DICHLOROANILINES, SOLID |
| 3443 | 36 | DINITROBENZENES, SOLID |
| 3444 | 34 | NICOTINE HYDROCHLORIDE, SOLID |
| 3445 | 34 | NICOTINE SULPHATE, SOLID |
| 3446 | 35D | NITROTOLUENES, SOLID |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 3447 | 35 | NITROXYLENES, SOLID |
| 3448 | 36 | TEAR GAS SUBSTANCE, SOLID, N.O.S. |
| 3449 | 36 | BROMOBENZYL CYANIDES, SOLID |
| 3450 | 34 | DIPHENYLCHLOROARSINE, SOLID |
| 3451 | 36 | TOLUIDINES, SOLID |
| 3452 | 37 | XYLIDINES, SOLID |
| 3453 | 37 | PHOSPHORIC ACID, SOLID |
| 3454 | 35D | DINITROTOLUENES, SOLID |
| 3455 | 36 | CRESOLS, SOLID |
| 3456 | 40 | NITROSYLSULPHURIC ACID, SOLID |
| 3457 | 35 | CHLORONITROTOLUENES, SOLID |
| 3458 | 35 | NITROANISOLES, SOLID |
| 3459 | 35 | NITROBROMOBENZENES, SOLID |
| 3460 | 36 | N-ETHYLBENZYLTOLUIDINES, SOLID |
| 3461* | 25 | ALUMINIUM ALKYL HALIDES, SOLID |
| 3462 | 36 | TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. |
| 3463 | 36 | PROPIONIC ACID |
| 3464 | 35 | ORGANOPHOSPHORUS COMPOUND, TOXIC, SOLID, N.O.S. |
| 3465 | 35 | ORGANOARSENIC COMPOUND, SOLID, N.O.S. |
| 3466 | 35 | METAL CARBONYLS SOLID, N.O.S. |
| 3467 | 35 | ORGANOMETALLIC COMPOUND, TOXIC, SOLID, N.O.S. |
| 3468 | 04 | HYDROGEN IN A METAL HYDRIDE STORAGE SYSTEM or HYDROGEN IN A METAL HYDRIDE STORAGE SYSTEM CONTAINED IN EQUIPMENT or HYDROGEN IN A METAL HYDRIDE STORAGE SYSTEM PACKED WITH EQUIPMENT |
| 3469 | 18 | PAINT, FLAMMABLE, CORROSIVE or PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE |
| 3470 | 36 | PAINT, CORROSIVE, FLAMMABLE or PAINT RELATED MATERIAL, CORROSIVE, FLAMMABLE |
| 3471 | 37 | HYDROGEN DIFLUORIDES SOLUTION, N.O.S. |
| 3472 | 36 | CROTONIC ACID, LIQUID |
| 3473 | 15 | FUEL CELL CARTRIDGES or FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT or FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT |
| 3474 | 52 | 1-HYDROXYBENZOTRIAZOLE MONOHYDRATE or 1-HYDROXYBENZOTRIAZOLE, ANHYDROUS, WETTED (Aust) |
| 3475 | 14 | ETHANOL AND GASOLINE MIXTURE or ETHANOL AND MOTOR SPIRIT MIXTURE or ETHANOL AND PETROL MIXTURE |
| 3476 | 15 | FUEL CELL CARTRIDGES or FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT or FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT |
| 3477 | 36 | FUEL CELL CARTRIDGES or FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT or FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT |
| 3478 | 04 | FUEL CELL CARTRIDGES or FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT or FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT |

| UN | GUIDE | PROPER SHIPPING NAME |
|---|---|---|
| 3479 | 04 | FUEL CELL CARTRIDGES or FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT or FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT |
| 3480 | 26 | LITHIUM ION BATTERIES |
| 3481 | 26 | LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT or LITHUIM ION BATTERIES PACKED WITH EQUIPMENT |
| 3482† | 26 | ALKALI METAL DISPERSION, FLAMMABLE or ALKALINE EARTH METAL DISPERSION, FLAMMABLE |
| 3483† | 16D | MOTOR FUEL ANTI-KNOCK MIXTURE, FLAMMABLE |
| 3484† | 36 | HYDRAZINE AQUEOUS SOLUTION, FLAMMABLE |
| 3485† | 31 | CALCIUM HYPOCHLORITE, DRY, CORROSIVE or CALCIUM HYPOCHLORITE MIXTURE, DRY, CORROSIVE with more than 39% available chlorine (8.8% available oxygen) |
| 3486† | 31 | CALCIUM HYPOCHLORITE MIXTURE, DRY, CORROSIVE with more than 10% but not more than 39% available chlorine |
| 3487† | 31 | CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, CORROSIVE with not less than 5.5% but not more than 16% water |
| 3488† | 36 | TOXIC BY INHALATION LIQUID, FLAMMABLE, CORROSIVE, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/$m^3$ and saturated vapour concentration greater than or equal to 500 LC50 |
| 3489† | 36 | TOXIC BY INHALATION LIQUID, FLAMMABLE, CORROSIVE, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/$m^3$ and saturated vapour concentration greater than or equal to 10 LC50 |
| 3490† | 39 | TOXIC BY INHALATION LIQUID, WATER-REACTIVE, FLAMMABLE, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/$m^3$ and saturated vapour concentration greater than or equal to 500 LC50 |
| 3491† | 39 | TOXIC BY INHALATION LIQUID, WATER-REACTIVE, FLAMMABLE, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/$m^3$ and saturated vapour concentration greater than or equal to 10 LC50 |
| 3492† | 36 | TOXIC BY INHALATION LIQUID, CORROSIVE, FLAMMABLE, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/$m^3$ and saturated vapour concentration greater than or equal to 500 LC50 |
| 3493† | 36 | TOXIC BY INHALATION LIQUID, CORROSIVE, FLAMMABLE, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/$m^3$ and saturated vapour concentration greater than or equal to 10 LC50 |
| 3494† | 18 | PETROLEUM SOUR CRUDE OIL, FLAMMABLE, TOXIC |
| 3495† | 37 | IODINE |

# NOTES

# 12. PROPER SHIPPING NAMES – TECHNICAL NAMES

* denotes a chemical that has been deleted from the UN list of Proper Shipping Names. Obsolete numbers are included in the list of Proper Shipping Names-Technical Names to provide emergency information should they be encountered in an emergency.

D indicates that the substance may decompose explosively.

P indicates that the substance may polymerise violently. This polymerisation can produce heat and pressure build-up in containers and may cause them to explode.

† denotes a UN number that is not in the latest edition of the ADG Code but has been added by the latest revised edition of the UN Model Regulations. Use of this number on labels and transport documentation may not comply with Australian law unless authorised by the competent authority.

| | | |
|---|---|---|
| AC | 05DP | 1051 |
| Accumulators, electric | 26 | 3292 |
| Accumulators, electric | 37 | 2794 |
| Accumulators, electric | 37 | 2795 |
| Accumulators, electric | 37 | 2800 |
| Accumulators, electric | 37 | 3028 |
| ACETAL | 14 | 1088 |
| ACETALDEHYDE | 18 | 1089 |
| ACETALDEHYDE AMMONIA | 35 | 1841 |
| ACETALDEHYDE OXIME | 19 | 2332 |
| ACETIC ACID, GLACIAL | 19 | 2789 |
| ACETIC ACID SOLUTION, more than 10% but not more than 80% acid, by mass | 36 | 2790 |
| ACETIC ACID SOLUTION, more than 80% acid, by mass | 19 | 2789 |
| ACETIC ANHYDRIDE | 38 | 1715 |
| Acetoin | 15P | 2621 |
| ACETONE | 14 | 1090 |
| ACETONE CYANOHYDRIN, STABILIZED | 35 | 1541 |
| ACETONE OILS | 14 | 1091 |
| ACETONITRILE | 17 | 1648 |
| ACETYL ACETONE PEROXIDE | 32 | 2080* |
| ACETYL ACETONE PEROXIDE | 32 | 3061* |
| ACETYL BENZYL PEROXIDE | 32 | 2081* |
| ACETYL BROMIDE | 39 | 1716 |
| ACETYL CHLORIDE | 38 | 1717 |
| ACETYL CYCLOHEXANE SULPHONYL PEROXIDE | 33 | 2082* |
| ACETYL CYCLOHEXANE SULPHONYL PEROXIDE | 33 | 2083* |
| ACETYLENE, DISSOLVED | 04DP | 1001 |
| ACETYLENE, SOLVENT FREE | 04D | 3374 |
| Acetylene tetrabromide | 34 | 2504 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Acetylene tetrachloride | 34 | 1702 |
| ACETYL IODIDE | 39 | 1898 |
| ACETYL METHYL CARBINOL | 15P | 2621 |
| ACETYL PEROXIDE PHLEGMATIZED | 33 | 2084* |
| Acid butyl phosphate | 36 | 1718 |
| Acid mixture, hydrofluoric and sulphuric | 40 | 1786 |
| Acid mixture, nitrating acid | 40 | 1796 |
| Acid mixture, spent, nitrating acid | 40 | 1826 |
| Acraldehyde, inhibited | 18P | 1092 |
| ACRIDINE | 36 | 2713 |
| ACROLEIN DIMER, STABILIZED | 19P | 2607 |
| ACROLEIN, STABILIZED | 18P | 1092 |
| ACRYLAMIDE, SOLID | 36P | 2074 |
| ACRYLAMIDE SOLUTION | 36P | 3426 |
| ACRYLIC ACID, STABILIZED | 19P | 2218 |
| ACRYLONITRILE, STABILIZED | 16P | 1093 |
| Actinolite | 47 | 2590 |
| Activated carbon | 20 | 1362 |
| Activated charcoal | 20 | 1362 |
| Adamsite | 37 | 1698 |
| ADHESIVES containing flammable liquid | 14 | 1133 |
| ADHESIVES, polyester resin kit (two pack) | 14 | 1133 |
| ADIPONITRILE | 36 | 2205 |
| Aeroplane flares | 02 | 0420 |
| Aeroplane flares | 02 | 0421 |
| Aeroplane flares | 02 | 0093 |
| Aeroplane flares | 03 | 0403 |
| Aeroplane flares | 03 | 0404 |
| AEROSOLS | 49 | 1950 |
| AGENT, BLASTING, TYPE B | 02 | 0331 |
| AGENT, BLASTING, TYPE E | 02 | 0332 |
| AIR-BAG INFLATORS | 47 | 3268 |
| AIR-BAG INFLATORS | 03 | 0503 |
| AIR-BAG INFLATORS, COMPRESSED GAS or AIR-BAG MODULES, COMPRESSED GAS or SEAT-BELT PRETENSIONERS, COMPRESSED GAS | 06 | 3353* |
| AIR-BAG MODULES | 47 | 3268 |
| AIR-BAG MODULES | 03 | 0503 |
| AIR, COMPRESSED | 10 | 1002 |
| Aircraft evacuation slides | 47 | 2990 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| AIRCRAFT HYDRAULIC POWER UNIT FUEL TANK (containing a mixture of anhydrous hydrazine and methylhydrazine) (M86 fuel) | 18 | 3165 |
| Aircraft survival kits | 47 | 2990 |
| AIRCRAFT THRUST DEVICE | 20 | 2791* |
| AIR, REFRIGERATED LIQUID | 10 | 1003 |
| ALARM DEVICES, AUTOMATIC (AUTO ALARMS) | 02 | 0001* |
| ALCOHOLATES SOLUTION, N.O.S., in alcohol | 16 | 3274 |
| Alcohol, denatured | 16 | 1986 |
| Alcohol, denatured | 14 | 1987 |
| Alcohol, industrial | 16 | 1986 |
| Alcohol, industrial | 14 | 1987 |
| ALCOHOLIC BEVERAGES, with more than 24% but not more than 70% alcohol by volume, or with more than 70% alcohol by mass | 14 | 3065 |
| ALCOHOLS, N.O.S. | 14 | 1987 |
| ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. | 16 | 1986 |
| Aldehyde | 18 | 1989 |
| ALDEHYDES, N.O.S. | 18 | 1989 |
| ALDEHYDES, FLAMMABLE, TOXIC, N.O.S. | 16 | 1988 |
| ALDOL | 36 | 2839 |
| Aldrin, liquid | 18 | 2762 |
| Aldrin, solid | 34 | 2761 |
| ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S. | 38 | 3206 |
| ALKALI METAL ALLOY, LIQUID, N.O.S. | 26 | 1421 |
| ALKALI METAL AMALGAM, LIQUID | 26 | 1389 |
| ALKALI METAL AMALGAM, SOLID | 26 | 3401 |
| ALKALI METAL AMIDES | 27 | 1390 |
| ALKALI METAL DISPERSION | 26 | 1391 |
| ALKALI METAL DISPERSION, FLAMMABLE | 26 | 3482† |
| Alkaline corrosive battery fluid | 37 | 2797 |
| ALKALINE EARTH METAL ALCOHOLATES, N.O.S. | 38 | 3205 |
| ALKALINE EARTH METAL ALLOY, N.O.S. | 26 | 1393 |
| ALKALINE EARTH METAL AMALGAM, LIQUID | 26 | 1392 |
| AKLALINE EARTH METAL AMALGAM, SOLID | 26 | 3402 |
| ALKALINE EARTH METAL DISPERSION | 26 | 1391 |
| ALKALINE EARTH METAL DISPERSION, FLAMMABLE | 26 | 3482† |
| ALKALOIDS, LIQUID, N.O.S. | 34 | 3140 |
| ALKALOID SALTS, LIQUID, N.O.S. | 34 | 3140 |
| ALKALOID SALTS, SOLID, N.O.S. | 34 | 1544 |
| ALKALOIDS, SOLID, N.O.S. | 34 | 1544 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Alkyl aluminium halides | 25 | 3052 |
| ALKYLPHENOLS, LIQUID, N.O.S. (including C2-C12 homologues) | 36 | 3145 |
| ALKYLPHENOLS, SOLID, N.O.S. (including C2-C12 homologues) | 36 | 2430 |
| ALKYLSULPHONIC ACIDS, LIQUID with more than 5% free sulphuric acid | 36 | 2584 |
| ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid | 36 | 2586 |
| ALKYLSULPHONIC ACIDS, SOLID with more than 5% free sulphuric acid | 36 | 2583 |
| ALKYLSULPHONIC ACIDS, SOLID with not more than 5% free sulphuric acid | 36 | 2585 |
| ALKYLSULPHURIC ACIDS | 39 | 2571 |
| Allene | 04P | 2200 |
| ALLYL ACETATE | 19 | 2333 |
| ALLYL ALCOHOL | 17 | 1098 |
| ALLYLAMINE | 18 | 2334 |
| ALLYL BROMIDE | 19 | 1099 |
| ALLYL CHLORIDE | 18 | 1100 |
| Allyl chlorocarbonate | 38 | 1722 |
| ALLYL CHLOROFORMATE | 38 | 1722 |
| ALLYL ETHYL ETHER | 16 | 2335 |
| ALLYL FORMATE | 18 | 2336 |
| ALLYL GLYCIDYL ETHER | 17 | 2219 |
| ALLYL IODIDE | 19 | 1723 |
| ALLYL ISOTHIOCYANATE, STABILIZED | 38 | 1545 |
| ALLYLTRICHLOROSILANE, STABILIZED | 25D | 1724 |
| ALUMINIUM ALKYLS | 25 | 3051* |
| Aluminium alkyl halides, liquid | 26 | 3394 |
| Aluminium alkyl halides, solid | 26 | 3393 |
| ALUMINIUM ALKYL HALIDES | 25 | 2220* |
| ALUMINIUM ALKYL HALIDES | 25 | 2221* |
| ALUMINIUM ALKYL HALIDES, LIQUID | 25 | 3052* |
| ALUMINIUM ALKYL HALIDES, SOLID | 25 | 3461* |
| Aluminium alkyl hydrides | 26 | 3394 |
| ALUMINIUM ALKYL HYDRIDES | 26 | 3076* |
| Aluminium alkyls | 26 | 3394 |
| ALUMINIUM BOROHYDRIDE | 25 | 2870 |
| ALUMINIUM BOROHYDRIDE IN DEVICES | 25 | 2870 |
| ALUMINIUM BROMIDE, ANHYDROUS | 40 | 1725 |
| ALUMINIUM BROMIDE SOLUTION | 40 | 2580 |
| ALUMINIUM CARBIDE | 26 | 1394 |
| ALUMINIUM CHLORIDE, ANHYDROUS | 40 | 1726 |
| ALUMINIUM CHLORIDE SOLUTION | 37 | 2581 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Aluminium dross | 26 | 3170 |
| ALUMINIUM FERROSILICON POWDER | 27 | 1395 |
| ALUMINIUM HYDRIDE | 26 | 2463 |
| ALUMINIUM NITRATE | 31 | 1438 |
| ALUMINIUM PHOSPHIDE | 27 | 1397 |
| ALUMINIUM PHOSPHIDE PESTICIDE | 27 | 3048 |
| ALUMINIUM POWDER, COATED | 29 | 1309 |
| ALUMINIUM POWDER, UNCOATED | 26 | 1396 |
| ALUMINIUM REMELTING BY-PRODUCTS | 26 | 3170 |
| ALUMINIUM RESINATE | 20 | 2715 |
| ALUMINIUM SILICON POWDER, UNCOATED | 26 | 1398 |
| ALUMINIUM SMELTING BY-PRODUCTS | 26 | 3170 |
| ALUMINIUM TRIETHYL | 25 | 1102* |
| ALUMINIUM TRIMETHYL | 25 | 1103* |
| Amatols | 02 | 0082 |
| AMINES, FLAMMABLE, CORROSIVE, N.O.S. | 18 | 2733 |
| AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. | 18 | 2734 |
| AMINES, LIQUID, CORROSIVE, N.O.S. | 36 | 2735 |
| AMINES, SOLID, CORROSIVE, N.O.S. | 37 | 3259 |
| Aminobenzene | 36 | 1547 |
| 2-Aminobenzotrifluororide | 36 | 2942 |
| 3-Aminobezontrifluororide | 36 | 2948 |
| Aminobutane | 19 | 1125 |
| 2-AMINO-4-CHLOROPHENOL | 34 | 2673 |
| 2-AMINO-5-DIETHYLAMINOPENTANE | 36 | 2946 |
| 2-AMINO-4,6-DINITROPHENOL, WETTED with not less than 20% water, by mass | 52 | 3317 |
| 2-(2-AMINOETHOXY)ETHANOL | 36 | 3055 |
| N-AMINOETHYLPIPERAZINE | 36 | 2815 |
| 1-Amino-2-nitrobenzene | 36 | 1661 |
| 1-Amino-3-nitrobenzene | 36 | 1661 |
| 1-Amino-4-nitrobenzene | 36 | 1661 |
| AMINOPHENOLS (o-, m-, p-) | 35 | 2512 |
| AMINOPYRIDINES (o-, m-, p-) | 36 | 2671 |
| AMMONIA, ANHYDROUS | 05 | 1005 |
| AMMONIA SOLUTION, relative density between 0.880 and 0.957 at 15°C in water, with more than 10% but not more than 35% ammonia | 37 | 2672 |
| AMMONIA SOLUTION, relative density less than 0.880 at 15°C in water, with more than 35% but not more than 50% ammonia | 36 | 2073 |
| AMMONIA SOLUTION, relative density less than 0.880 at 15°C in water, with more than 50% ammonia | 36 | 3318 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| AMMONIUM ARSENATE | 34 | 1546 |
| Ammonium bichromate | 31 | 1439 |
| Ammonium bifluoride solid | 37 | 1727 |
| Ammonium bifluoride solution | 37 | 2817 |
| Ammonium bisulphate | 37 | 2506 |
| Ammonium bisulphate solution | 37 | 2693 |
| AMMONIUM DICHROMATE | 31 | 1439 |
| AMMONIUM DINITRO-o-CRESOLATE, SOLID | 31 | 1843 |
| AMMONIUM DINTRO-o-CRESOLATE, SOLUTION | 31 | 3424 |
| AMMONIUM FLUORIDE | 37 | 2505 |
| AMMONIUM FLUOROSILICATE | 37 | 2854 |
| Ammonium hexafluorosiicate | 37 | 2854 |
| AMMONIUM HYDROGEN DIFLUORIDE, SOLID | 37 | 1727 |
| AMMONIUM HYDROGEN DIFLUORIDE SOLUTION | 37 | 2817 |
| AMMONIUM HYDROGEN SULPHATE | 37 | 2506 |
| Ammonium hydrosulphide solution (treat as ammonium sulphide solution) | 19 | 2683 |
| AMMONIUM METAVANADATE | 37 | 2859 |
| AMMONIUM NITRATE BASED FERTILIZER | 50 | 2067 |
| AMMONIUM NITRATE BASED FERTILIZER | 50 | 2068* |
| AMMONIUM NITRATE BASED FERTILIZER | 50 | 2071 |
| AMMONIUM NITRATE EMULSION, intermediate for blasting explosives | 51D | 3375 |
| Ammonium nitrate explosive | 02 | 0082 |
| Ammonium nitrate explosive | 02 | 0331 |
| AMMONIUM NITRATE FERTILIZER | 02 | 0223* |
| AMMONIUM NITRATE FERTILIZER, N.O.S. | 50 | 2072* |
| AMMONIUM NITRATE FERTILIZERS | 50 | 2069* |
| AMMONIUM NITRATE FERTILIZERS | 50 | 2070* |
| AMMONIUM NITRATE GEL, intermediate for blasting explosives | 51D | 3375 |
| AMMONIUM NITRATE, LIQUID (hot concentrated solution) | 50 | 2426 |
| AMMONIUM NITRATE SUSPENSION, intermediate for blasting explosives | 51D | 3375 |
| AMMONIUM NITRATE with more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance | 02 | 0222 |
| AMMONIUM NITRATE with not more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance | 50 | 1942 |
| AMMONIUM NITRATE EXPLOSIVE | 02 | 0082 |
| AMMONIUM NITRATE | 02 | 0331 |
| AMMONIUM PERCHLORATE | 02 | 0402 |
| AMMONIUM PERCHLORATE | 31 | 1442 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Ammonium permanganate | 31 | 1482 |
| AMMONIUM PERSULPHATE | 31 | 1444 |
| AMMONIUM PICRATE dry or wetted with less than 10% water, by mass | 02 | 0004 |
| AMMONIUM PICRATE, WETTED with not less than 10% water, by mass | 52 | 1310 |
| AMMONIUM POLYSULPHIDE SOLUTION | 37 | 2818 |
| AMMONIUM POLYVANADATE | 34 | 2861 |
| Ammonium silicofluoride | 37 | 2854 |
| AMMONIUM SULPHIDE SOLUTION | 19 | 2683 |
| Ammunition, blank | 02 | 0326 |
| Ammunition, blank | 02 | 0413 |
| Ammunition, blank | 02 | 0327 |
| Ammunition, blank | 03 | 0338 |
| Ammunition, blank | 03 | 0014 |
| Ammunition, fixed; Ammunition semi-fixed; Ammunition, separate loading | 02 | 0006 |
| Ammunition, fixed; Ammunition semi-fixed; Ammunition, separate loading | 02 | 0005 |
| Ammunition, fixed; Ammunition semi-fixed; Ammunition, separate loading | 02 | 0321 |
| Ammunition, fixed; Ammunition semi-fixed; Ammunition, separate loading | 02 | 0007 |
| Ammunition, fixed; Ammunition semi-fixed; Ammunition, separate loading | 03 | 0412 |
| Ammunition, fixed; Ammunition semi-fixed; Ammunition, separate loading | 03 | 0348 |
| AMMUNITION, ILLUMINATING with or without burster, expelling charge or propelling charge | 02 | 0171 |
| AMMUNITION, ILLUMINATING with or without burster, expelling charge or propelling charge | 02 | 0254 |
| AMMUNITION, ILLUMINATING with or without burster, expelling charge or propelling charge | 03 | 0297 |
| AMMUNITION, INCENDIARY, liquid or gel, with burster, expelling charge or propelling charge | 02 | 0247 |
| AMMUNITION, INCENDIARY with or without burster, expelling charge or propelling charge | 02 | 0009 |
| AMMUNITION, INCENDIARY with or without burster, expelling charge or propelling charge | 02 | 0010 |
| AMMUNITION, INCENDIARY with or without burster, expelling charge or propelling charge | 03 | 0300 |
| Ammunition, incendiary (water-activated contrivances) with burster, expelling charge or propelling charge | 02 | 0249 |
| AMMUNITION, INCENDIARY, WHITE PHOSPHORUS with burster, expelling charge or propelling charge | 02 | 0243 |
| AMMUNITION, INCENDIARY, WHITE PHOSPHORUS with burster, expelling charge or propelling charge | 02 | 0244 |
| Ammunition, industrial | 02 | 0381 |
| Ammunition, industrial | 02 | 0275 |
| Ammunition, industrial | 02 | 0277 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Ammunition, industrial | 03 | 0276 |
| Ammunition, industrial | 03 | 0278 |
| Ammunition, industrial | 03 | 0323 |
| Ammunition, lachrymatory | 02 | 0018 |
| Ammunition, lachrymatory | 02 | 0019 |
| Ammunition, lachrymatory | 03 | 0301 |
| Ammunition, lachrymatory | 36 | 2017 |
| AMMUNITION, PRACTICE | 03 | 0362 |
| AMMUNITION, PRACTICE | 02 | 0488 |
| AMMUNITION, PROOF | 03 | 0363 |
| AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge | 02 | 0015 |
| AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge | 02 | 0016 |
| AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge | 03 | 0303 |
| Ammunition, smoke (water-activated contrivances), white phosphorus with burster, expelling charge or propelling charge | 02 | 0248 |
| Ammunition, smoke (water-activated contrivances), without white phosphorus or phosphides with burster, expelling charge or propelling charge | 02 | 0249 |
| AMMUNITION, SMOKE, WHITE PHOSPHORUS with burster, expelling charge or propelling charge | 02 | 0245 |
| AMMUNITION, SMOKE, WHITE PHOSPHORUS with burster, expelling charge or propelling charge | 02 | 0246 |
| Ammunition, sporting | 02 | 0328 |
| Ammunition, sporting | 02 | 0417 |
| Ammunition, sporting | 03 | 0339 |
| Ammunition, sporting | 03 | 0012 |
| AMMUNITION, TEAR-PRODUCING, NON-EXPLOSIVE without burster or expelling charge, non-fuzed | 36 | 2017 |
| AMMUNITION, TEAR-PRODUCING with burster, expelling charge or propelling charge | 02 | 0018 |
| AMMUNITION, TEAR-PRODUCING with burster, expelling charge or propelling charge | 02 | 0019 |
| AMMUNITION, TEAR-PRODUCING with burster, expelling charge or propelling charge | 03 | 0301 |
| AMMUNITION, TOXIC with burster, expelling charge or propelling charge | 02 | 0020 |
| AMMUNITION, TOXIC with burster, expelling charge or propelling charge | 02 | 0021 |
| Ammunition, toxic (water-activated contrivances) with burster, expelling charge or propelling charge | 02 | 0248 |
| Ammunition, toxic (water-activated contrivances) with burster, expelling charge or propelling charge | 02 | 0249 |
| AMMUNITION, TOXIC, NON-EXPLOSIVE without burster or expelling charge, non-fuzed | 37 | 2016 |
| Amorces (caps, toy) | 02 | 0333 |
| Amorces (caps, toy) | 03 | 0336 |
| Amorces (caps, toy) | 03 | 0337 |
| Amosite | 47 | 2212 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| AMYL ACETATES | 18 | 1104 |
| AMYL ACID PHOSPHATE | 36 | 2819 |
| Amyl aldehyde | 18 | 2058 |
| AMYLAMINE | 18 | 1106 |
| AMYL BUTYRATES | 19 | 2620 |
| AMYL CHLORIDE | 18 | 1107 |
| n-AMYLENE | 14 | 1108 |
| AMYL FORMATES | 18 | 1109 |
| tert-AMYL HYDROPEROXIDE | 32 | 3067* |
| AMYL MERCAPTAN | 16 | 1111 |
| n-AMYL METHYL KETONE | 15 | 1110 |
| AMYL NITRATE | 15 | 1112 |
| AMYL NITRITE | 16 | 1113 |
| tert-AMYLPEROXYBENZOATE | 32 | 3044* |
| tert-AMYL PEROXY-2-ETHYLHEXANOATE | 33 | 2898* |
| tert-AMYL PEROXYNEODECANOATE | 33 | 2891* |
| tert-AMYL PEROXYPIVALATE | 33 | 2957* |
| AMYLTRICHLOROSILANE | 38 | 1728 |
| Anaesthetic ether | 14D | 1155 |
| ANHYDROUS AMMONIA | 05 | 1005 |
| ANILINE | 36 | 1547 |
| Aniline chloride | 36 | 1548 |
| ANILINE HYDROCHLORIDE | 36 | 1548 |
| Aniline oil | 36 | 1547 |
| Aniline salt | 36 | 1548 |
| ANISIDINES | 36 | 2431 |
| ANISOLE | 15 | 2222 |
| ANISOYL CHLORIDE | 39 | 1729 |
| Anthophyllite | 47 | 2590 |
| Antimonous chloride | 40 | 1733 |
| ANTIMONY COMPOUND, INORGANIC, LIQUID, N.O.S. | 40 | 3141 |
| ANTIMONY COMPOUND, INORGANIC, SOLID, N.O.S. | 40 | 1549 |
| Antimony hydride | 37 | 2676 |
| ANTIMONY LACTATE | 34 | 1550 |
| Antimony (III) lactate | 34 | 1550 |
| ANTIMONY PENTACHLORIDE, LIQUID | 40 | 1730 |
| ANTIMONY PENTACHLORIDE SOLUTION | 40 | 1731 |
| ANTIMONY PENTAFLUORIDE | 40 | 1732 |
| Antimony perchloride, liquid | 40 | 1730 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| ANTIMONY POTASSIUM TARTRATE | 34 | 1551 |
| ANTIMONY POWDER | 29 | 2871 |
| ANTIMONY TRICHLORIDE | 40 | 1733 |
| A.n.t.u. | 36 | 1651 |
| ARGON, COMPRESSED | 08 | 1006 |
| ARGON, REFRIGERATED LIQUID | 08 | 1951 |
| Arsenates, n.o.s. | 35 | 1556 |
| Arsenates, n.o.s. | 35 | 1557 |
| ARSENIC | 35 | 1558 |
| ARSENIC ACID, LIQUID | 37 | 1553 |
| ARSENIC ACID, SOLID | 37 | 1554 |
| ARSENICAL DUST | 35 | 1562 |
| Arsenical flue dust | 35 | 1562 |
| ARSENICAL PESTICIDE, LIQUID, FLAMMABLE, TOXIC, flashpoint less than 23°C | 16 | 2760 |
| ARSENICAL PESTICIDE, LIQUID, TOXIC | 34 | 2994 |
| ARSENICAL PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flashpoint not less than 23°C | 17 | 2993 |
| ARSENICAL PESTICIDE, SOLID, TOXIC | 34 | 2759 |
| ARSENIC BROMIDE | 34 | 1555 |
| Arsenic (III) bromide | 35 | 1555 |
| Arsenic chloride | 40 | 1560 |
| ARSENIC COMPOUND, LIQUID, N.O.S., inorganic, including: Arsenates, n.o.s.; Arsenites, n.o.s.; and Arsenic sulphides, n.o.s. | 35 | 1556 |
| ARSENIC COMPOUND, SOLID, N.O.S., inorganic, including: Arsenates, n.o.s.; Arsenites, n.o.s.; and Arsenic sulphides, n.o.s. | 35 | 1557 |
| Arsenic (III) oxide | 34 | 1561 |
| Arsenic (V) oxide | 34 | 1559 |
| ARSENIC PENTOXIDE | 34 | 1559 |
| Arsenic sulphides | 35 | 1556 |
| Arsenic sulphides | 35 | 1557 |
| ARSENIC TRICHLORIDE | 40 | 1560 |
| ARSENIC TRIOXIDE | 34 | 1561 |
| Arsenious chloride | 40 | 1560 |
| Arsenites, n.o.s. | 35 | 1556 |
| Arsenites, n.o.s. | 35 | 1557 |
| Arsenous chloride | 40 | 1560 |
| ARSINE | 05 | 2188 |
| Arsenites, n.o.s.; and Arsenic sulphides, n.o.s. | 35 | 1556 |
| Arsenites, n.o.s.; and Arsenic sulphides, n.o.s. | 35 | 1557 |
| ARTICLES, EEI | 02 | 0486 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| ARTICLES, EXPLOSIVE, EXTREMELY INSENSITIVE | 02 | 0486 |
| ARTICLES, EXPLOSIVE, N.O.S. | 03 | 0349 |
| ARTICLES, EXPLOSIVE, N.O.S. | 03 | 0350 |
| ARTICLES, EXPLOSIVE, N.O.S. | 03 | 0351 |
| ARTICLES, EXPLOSIVE, N.O.S. | 03 | 0352 |
| ARTICLES, EXPLOSIVE, N.O.S. | 03 | 0353 |
| ARTICLES, EXPLOSIVE, N.O.S. | 02 | 0354 |
| ARTICLES, EXPLOSIVE, N.O.S. | 02 | 0355 |
| ARTICLES, EXPLOSIVE, N.O.S. | 02 | 0356 |
| ARTICLES, EXPLOSIVE, N.O.S. | 02 | 0462 |
| ARTICLES, EXPLOSIVE, N.O.S. | 02 | 0463 |
| ARTICLES, EXPLOSIVE, N.O.S. | 02 | 0464 |
| ARTICLES, EXPLOSIVE, N.O.S. | 02 | 0465 |
| ARTICLES, EXPLOSIVE, N.O.S. | 02 | 0466 |
| ARTICLES, EXPLOSIVE, N.O.S. | 02 | 0467 |
| ARTICLES, EXPLOSIVE, N.O.S. | 02 | 0468 |
| ARTICLES, EXPLOSIVE, N.O.S. | 02 | 0469 |
| ARTICLES, EXPLOSIVE, N.O.S. | 02 | 0470 |
| ARTICLES, EXPLOSIVE, N.O.S. | 03 | 0471 |
| ARTICLES, EXPLOSIVE, N.O.S. | 03 | 0472 |
| ARTICLES, PRESSURIZED, HYDRAULIC (containing non-flammable gas) | 06 | 3164 |
| ARTICLES, PRESSURIZED, PNEUMATIC (containing non-flammable gas) | 06 | 3164 |
| ARTICLES, PYROPHORIC | 02 | 0380 |
| ARTICLES, PYROTECHNIC for technical purposes | 02 | 0428 |
| ARTICLES, PYROTECHNIC for technical purposes | 02 | 0429 |
| ARTICLES, PYROTECHNIC for technical purposes | 02 | 0430 |
| ARTICLES, PYROTECHNIC for technical purposes | 03 | 0431 |
| ARTICLES, PYROTECHNIC for technical purposes | 03 | 0432 |
| ARYLSULPHONIC ACIDS, LIQUID with more than 5% free sulphuric acid | 36 | 2584 |
| ARYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid | 36 | 2586 |
| ARYLSULPHONIC ACIDS, SOLID with more than 5% free sulphuric acid | 36 | 2583 |
| ARYLSULPHONIC ACIDS, SOLID with not more than 5% free sulphuric acid | 36 | 2585 |
| Asbestos, blue or brown | 47 | 2212 |
| Asbestos, white | 47 | 2590 |
| ASPHALT CUT BACKS | 16 | 1999 |
| AVIATION GASOLINE | 14 | 1203 |
| AVIATION REGULATED LIQUID, N.O.S. | 47 | 3334 |
| AVIATION REGULATED SOLID, N.O.S. | 47 | 3335 |
| AVIATION TURBINE FUEL | 14 | 1863 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| AZODICARBONAMIDE | 21 | 3242 |
| 1,1'-AZODI-(2,4-DIMETHYL-4-METHOXYVALERONITRILE) | 20 | 2955* |
| 2,2'-AZODI-(2,4-DIMETHYL VALERONITRILE) | 20 | 2953* |
| 1,1'-AZODI-(HEXAHYDROBENZONITRILE) | 20 | 2954* |
| AZODIISOBUTYRONITRILE | 21 | 2952* |
| 2,2'-AZODI-(2,METHYLBUTYRONITRILE) | 20 | 3030* |
| Bag charges | 02 | 0279 |
| Bag charges | 02 | 0414 |
| Bag charges | 02 | 0242 |
| BAGS | 20 | 1359* |
| Ballistite | 02 | 0160 |
| Ballistite | 02 | 0161 |
| Bangalore torpedoes | 02 | 0137 |
| Bangalore torpedoes | 02 | 0136 |
| Bangalore torpedoes | 02 | 0138 |
| Bangalore torpedoes | 02 | 0294 |
| BARIUM | 26 | 1400 |
| BARIUM ALLOY | 26 | 1399* |
| BARIUM ALLOYS, PYROPHORIC | 25 | 1854 |
| BARIUM AZIDE, dry or wetted with less than 50% water, by mass | 02 | 0224 |
| BARIUM AZIDE, WETTED with not less than 50% water, by mass | 52 | 1571 |
| Barium binoxide | 31 | 1449 |
| BARIUM BROMATE | 31 | 2719 |
| BARIUM CHLORATE, SOLID | 31 | 1445 |
| BARIUM CHLORATE SOLUTION | 31 | 3405 |
| BARIUM COMPOUND, N.O.S. | 37 | 1564 |
| BARIUM CYANIDE | 40 | 1565 |
| Barium dioxide | 31 | 1449 |
| BARIUM HYPOCHLORITE with more than 22% available chlorine | 31 | 2741 |
| BARIUM NITRATE | 31 | 1446 |
| BARIUM OXIDE | 40 | 1884 |
| BARIUM PERCHLORATE, SOLID | 31 | 1447 |
| BARIUM PERCHLORATE SOLUTION | 31 | 3406 |
| BARIUM PERMANGANATE | 31 | 1448 |
| BARIUM PEROXIDE | 31 | 1449 |
| Barium selenate | 34 | 2630 |
| Barium selenite | 34 | 2630 |
| Barium superoxide | 31 | 1449 |
| BATTERIES, CONTAINING SODIUM | 26 | 3292 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| BATTERIES, DRY, CONTAINING POTASSIUM HYDROXIDE SOLID, electric storage | 37 | 3028 |
| BATTERIES, WET, FILLED WITH ACID, electric storage | 37 | 2794 |
| BATTERIES, WET, FILLED WITH ALKALI, electric storage | 37 | 2795 |
| BATTERIES, WET, NON-SPILLABLE, electric storage | 37 | 2800 |
| BATTERY FLUID, ACID | 37 | 2796 |
| BATTERY FLUID, ALKALI | 37 | 2797 |
| Battery, lithium ion | 26 | 3480 |
| Battery, lithium ion | 26 | 3481 |
| Battery, lithium metal | 26 | 3090 |
| Battery, lithium metal | 26 | 3091 |
| BATTERY-POWERED EQUIPMENT | 37 | 3171 |
| BATTERY-POWERED VEHICLE | 37 | 3171 |
| BENZALDEHYDE | 18 | 1990 |
| BENZENE | 16 | 1114 |
| BENZENE-1,3-DISULPHOHYDRAZIDE | 20 | 2971* |
| BENZENE SULPHOHYDRAZIDE | 20 | 2970* |
| BENZENESULPHONYL CHLORIDE | 39 | 2225 |
| 1,4-Benzenediol | 36 | 2662 |
| Benzenethiol | 16 | 2337 |
| BENZIDINE | 36 | 1885 |
| BENZINE | 14 | 1115* |
| BENZOIC DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC | 16 | 2770* |
| BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC | 34 | 3004* |
| BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE | 17 | 3003* |
| Benzol | 16 | 1114 |
| Benzolene | 14 | 1268 |
| BENZONITRILE | 35 | 2224 |
| BENZOQUINONE | 36 | 2587 |
| Benzosulphoxhloride | 39 | 2225 |
| BENZOTRICHLORIDE | 39 | 2226 |
| BENZOTRIFLUORIDE | 16 | 2338 |
| BENZOYL CHLORIDE | 39 | 1736 |
| BENZOYL PEROXIDE | 32 | 2085* |
| BENZOYL PEROXIDE | 32 | 2087* |
| BENZOYL PEROXIDE | 32 | 2088* |
| BENZOYL PEROXIDE | 32 | 2089* |
| BENZOYL PEROXIDE | 32 | 2090* |
| BENZYL BROMIDE | 39 | 1737 |
| BENZYL CHLORIDE | 39 | 1738 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Benzyl chlorocarbonate | 39 | 1739 |
| BENZYL CHLOROFORMATE | 39 | 1739 |
| Benzyl cyanide | 35 | 2470 |
| BENZYLDIMETHYLAMINE | 36 | 2619 |
| BENZYLIDENE CHLORIDE | 39 | 1886 |
| 4-[BENZYL(ETHYL)AMINO]-3-ETHOXY-BENZENE-DIAZONIUM ZINC CHLORIDE | 20 | 3037* |
| BENZYL IODIDE | 39 | 2653 |
| 4-[BENZYL(METHYL)AMINO]-3-ETHOXY-BENZENE-DIAZONIUM ZINC CHLORIDE | 20 | 3038* |
| BERYLLIUM COMPOUND, N.O.S. | 37 | 1566 |
| BERYLLIUM NITRATE | 31 | 2464 |
| BERYLLIUM POWDER | 35 | 1567 |
| BHUSA | 20 | 1327 |
| BICYCLO[2.2.1]HEPTA-2,5-DIENE, STABILIZED (2,5-NORBORNADIENE, STABILIZED) | 14P | 2251 |
| Bifluorides, n.o.s. | 37 | 1740 |
| BIOLOGICAL SUBSTANCE, CATEGORY B | 41 | 3373 |
| (BIO)MEDICAL WASTE, N.O.S. | 41 | 3291 |
| BIPYRIDILIUM PESTICIDE, LIQUID, FLAMMABLE, TOXIC, flashpoint less than 23°C | 16 | 2782 |
| BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC | 34 | 3016 |
| BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flashpoint not less than 23°C | 17 | 3015 |
| BIPYRIDILIUM PESTICIDE, SOLID, TOXIC | 34 | 2781 |
| BISULPHATES, AQUEOUS SOLUTION | 37 | 2837 |
| BISULPHITES, AQUEOUS SOLUTION, N.O.S. | 37 | 2693 |
| BLACK POWDER (GUNPOWDER), COMPRESSED or BLACK POWDER (GUNPOWDER), IN PELLETS | 02 | 0028 |
| BLACK POWDER (GUNPOWDER) granular or as a meal | 02 | 0027 |
| BLACK POWDER (GUNPOWDER), IN PELLETS | 02 | 0028 |
| Blasting cap assemblies | 02 | 0360 |
| Blasting cap assemblies | 03 | 0361 |
| Blasting caps, electric | 02 | 0030 |
| Blasting caps, electric | 03 | 0255 |
| Blasting caps, electric | 03 | 0456 |
| Blasting caps, non electric | 02 | 0029 |
| Blasting caps, non electric | 03 | 0267 |
| Blasting caps, non electric | 03 | 0455 |
| Blau gas | 05 | 2600 |
| Bleaching powder | 31 | 2208 |
| BLUE ASBESTOS (crocidolite | 47 | 2212 |
| BOMBS with bursting charge | 02 | 0033 |
| BOMBS with bursting charge | 02 | 0034 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| BOMBS with bursting charge | 02 | 0035 |
| BOMBS with bursting charge | 02 | 0291 |
| Bombs, illuminating | 02 | 0254 |
| BOMBS, PHOTO-FLASH | 02 | 0037 |
| BOMBS, PHOTO-FLASH | 02 | 0038 |
| BOMBS, PHOTO-FLASH | 02 | 0039 |
| BOMBS, PHOTO-FLASH | 02 | 0299 |
| BOMBS, SMOKE, NON-EXPLOSIVE with corrosive liquid, without initiating device | 36 | 2028 |
| Bombs, target identification | 02 | 0171 |
| Bombs, target identification | 02 | 0254 |
| Bombs, target identification | 03 | 0297 |
| BOMBS WITH FLAMMABLE LIQUID with bursting charge | 02 | 0399 |
| BOMBS WITH FLAMMABLE LIQUID with bursting charge | 02 | 0400 |
| BOOSTERS WITH DETONATOR | 02 | 0225 |
| BOOSTERS WITH DETONATOR | 02 | 0268 |
| BOOSTERS without detonator | 02 | 0042 |
| BOOSTERS without detonator | 02 | 0283 |
| Borate and chlorate mixture | 31 | 1458 |
| BORDEAUX ARSENITES | 34 | 1568* |
| BORNEOL | 20 | 1312 |
| BORON TRIBROMIDE | 40 | 2692 |
| BORON TRICHLORIDE | 07 | 1741 |
| BORON TRIFLUORIDE | 07 | 1008 |
| BORON TRIFLUORIDE ACETIC ACID COMPLEX, LIQUID | 38 | 1742 |
| BORON TRIFLUORIDE ACETIC ACID COMPLEX, SOLID | 38 | 3419 |
| BORON TRIFLUORIDE DIETHYL ETHERATE | 27 | 2604 |
| BORON TRIFLUORIDE DIHYDRATE | 40 | 2851 |
| BORON TRIFLUORIDE DIMETHYL ETHERATE | 26 | 2965 |
| BORON TRIFLUORIDE PROPIONIC ACID COMPLEX, LIQUID | 39 | 1743 |
| BORON TRIFLUORIDE PROPIONIC ACID COMPLEX, SOLID | 39 | 3420 |
| BRAKE FLUID | 18 | 1118* |
| BROMATES, INORGANIC, N.O.S. | 31 | 1450 |
| BROMATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. | 31 | 3213 |
| BROMINE | 37 | 1744 |
| BROMINE CHLORIDE | 12 | 2901 |
| BROMINE PENTAFLUORIDE | 28 | 1745 |
| BROMINE SOLUTION | 37 | 1744 |
| BROMINE TRIFLUORIDE | 28 | 1746 |
| BROMOACETIC ACID, SOLUTION | 39 | 1938 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| BROMOACETIC ACID, SOLID | 39 | 3425 |
| BROMOACETONE | 18 | 1569 |
| omega-Bromoacetone | 36 | 2645 |
| BROMOACETYL BROMIDE | 39 | 2513 |
| BROMOBENZENE | 17 | 2514 |
| BROMOBENZYL CYANIDES, LIQUID | 36 | 1694 |
| BROMOBENZYL CYANIDES, SOLID | 36 | 3449 |
| 1-BROMOBUTANE | 16 | 1126 |
| 2-BROMOBUTANE | 17 | 2339 |
| BROMOCHLOROMETHANE | 37 | 1887 |
| 1-BROMO-3-CHLOROPROPANE | 34 | 2688 |
| 1-Bromo-2,3-epoxypropane | 18 | 2558 |
| Bromoethane | 17 | 1891 |
| 2-BROMOETHYL ETHYL ETHER | 16 | 2340 |
| BROMOFORM | 37 | 2515 |
| Bromomethane | 07 | 1062 |
| 1-BROMO-3-METHYLBUTANE | 18 | 2341 |
| BROMOMETHYLPROPANES | 19 | 2342 |
| 2-BROMO-2-NITROPROPANE-1,3-DIOL | 36 | 3241 |
| 2-BROMOPENTANE | 18 | 2343 |
| BROMOPROPANES | 18 | 2344 |
| 3-BROMOPROPYNE | 18 | 2345 |
| BROMOTRIFLUOROETHYLENE | 14 | 2419 |
| BROMOTRIFLUOROMETHANE (REFRIGERANT GAS R 13B1) | 08 | 1009 |
| BROWN ASBESTOS (amosite, mysorite) | 47 | 2212 |
| BRUCINE | 35 | 1570 |
| BURSTERS, explosive | 02 | 0043 |
| BUTADIENES, STABILIZED | 04P | 1010 |
| BUTADIENES AND HYDROCARBONMIXTURE, STABILIZED | 04P | 1010 |
| BUTANE | 04 | 1011 |
| BUTANEDIONE | 14 | 2346 |
| Butane-1-thiol | 16 | 2347 |
| 1-Butanol | 16 | 1120 |
| Butan-2-ol | 16 | 1120 |
| BUTANOLS | 16 | 1120 |
| Butanol, secondary | 16 | 1120 |
| Butanol tertiary | 16 | 1120 |
| Butanone | 14 | 1193 |
| 2-Butanal | 18P | 1143 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Butene | 04 | 1012 |
| Bute-1-ene-3-one | 18P | 1251 |
| 1, 2-Buteneoxide | 14P | 3022 |
| 2-Buten-1-ol | 17 | 2614 |
| BUTOXYL | 15 | 2708* |
| BUTYL ACETATES | 18 | 1123 |
| Butyl acetate, secondary | 18 | 1123 |
| BUTYL ACID PHOSPHATE | 36 | 1718 |
| BUTYL ACRYLATES, STABILIZED | 19P | 2348 |
| Butyl alcohols | 16 | 1120 |
| n-BUTYLAMINE | 18 | 1125 |
| N-BUTYLANILINE | 36 | 2738 |
| sec-Butyl benzene | 15 | 2709 |
| BUTYLBENZENES | 15 | 2709 |
| n-Butyl bromide | 16 | 1126 |
| n-Butyl chloride | 16 | 1127 |
| n-BUTYL CHLOROFORMATE | 39 | 2743 |
| tert-BUTYL CUMYL PEROXIDE | 32 | 2091* |
| tert-BUTYLCYCLOHEXYL CHLOROFORMATE | 39 | 2747 |
| n-BUTYL-4,4-DI-(tert-BUTYLPEROXY) VALERATE | 32 | 2140* |
| n-BUTYL-4,4-DI-(tert-BUTYLPEROXY) VALERATE | 32 | 2141* |
| BUTYLENE | 04 | 1012 |
| 1,2-BUTYLENE OXIDE, STABILIZED | 14P | 3022 |
| Butyl ethers | 15 | 1149 |
| Butyl ethyl ether | 14 | 1179 |
| n-BUTYL FORMATE | 18 | 1128 |
| tert-BUTYL HYDROPEROXIDE | 32 | 2092* |
| tert-BUTYL HYDROPEROXIDE | 32 | 2093* |
| tert-BUTYL HYDROPEROXIDE | 32 | 2094* |
| tert-BUTYL HYPOCHLORITE | 25 | 3255 |
| N,n-BUTYLIMIDAZOLE | 35 | 2690 |
| N,n-Butyliminazole | 35 | 2690 |
| n-BUTYL ISOCYANATE | 38 | 2485 |
| tert-BUTYL ISOCYANATE | 38 | 2484 |
| Butyl lithium | 25 | 2445 |
| BUTYL MERCAPTAN | 16 | 2347 |
| n-BUTYL METHACRYLATE, STABILIZED | 19P | 2227 |
| BUTYL METHYL ETHER | 14 | 2350 |
| BUTYL NITRITES | 17 | 2351 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| tert-BUTYL MONOPEROXYMALEATE | 32 | 2099* |
| tert-BUTYL MONOPEROXYMALEATE | 32 | 2100* |
| tert-BUTYL MONOPEROXYMALEATE | 32 | 2101 |
| tert-BUTYL MONOPEROXYPHTHALATE | 32 | 2105* |
| tert-BUTYL PEROXIDE | 32 | 2102* |
| tert-BUTYL PEROXYACETATE | 32 | 2095* |
| tert-BUTYL PEROXYACETATE | 32 | 2096* |
| tert-BUTYL PEROXYBENZOATE | 32 | 2097* |
| tert-BUTYL PEROXYBENZOATE | 32 | 2098* |
| tert-BUTYL PEROXYBENZOATE | 32 | 2890* |
| tert-BUTYL PEROXYCROTONATE | 32 | 2183* |
| n-BUTYL PEROXYDICARBONATE | 33 | 2169* |
| n-BUTYL PEROXYDICARBONATE | 33 | 2170* |
| tert-BUTYL PEROXYDIETHYLACETATE | 33 | 2144* |
| tert-BUTYL PEROXYDIETHYLACETATE, with tert-BUTYL PEROXYBENZOATE | 32 | 2551* |
| tert-BUTYL PEROXY-2-ETHYLHEXANOATE | 33 | 2143* |
| tert-BUTYL-PEROXY-2-ETHYL HEXANOATE | 32 | 2887* |
| tert-BUTYL-PEROXY-(2-ETHYL) HEXANOATE | 33 | 2888* |
| tert-BUTYL PEROXYISOBUTYRATE | 33 | 2142* |
| tert-BUTYL PEROXYISOBUTYRATE | 33 | 2562* |
| tert-BUTYL PEROXY ISO-PROPYLCARBONATE | 32 | 2103* |
| tert-BUTYL PEROXYNEODECANOATE | 33 | 2177* |
| tert-BUTYL PEROXYNEODECANOATE | 33 | 2594* |
| 3-tert-BUTYL PEROXY-3-PHENYLPHTHALIDE | 32 | 2596* |
| tert-BUTYL PEROXYPIVALATE | 33 | 2110* |
| tert-BUTYL PEROXYPIVALATE | 33 | 3047* |
| tert-BUTYLPEROXY STEARYL CARBONATE | 32 | 3062* |
| tert-BUTYL PEROXY-3,5,5-TRIMETHYLHEXANOATE | 32 | 2104* |
| BUTYLPHENOLS, LIQUID | 36 | 2228* |
| Butylphenols, liquid | 36 | 3145 |
| BUTYLPHENOLS, SOLID | 36 | 2229* |
| Butylphenols, solid | 36 | 2430 |
| BUTYL PROPIONATES | 19 | 1914 |
| p-tert-Butyltoluene | 35 | 2667 |
| BUTYLTOLUENES | 35 | 2667 |
| BUTYLTRICHLOROSILANE | 25 | 1747 |
| 5-tert-BUTYL-2,4,6-TRINITRO-m-XYLENE (MUSK XYLENE) | 52 | 2956 |
| BUTYL VINYL ETHER, STABILIZED | 14P | 2352 |
| But-1-yne | 04P | 2452 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| 1, 4-BUTYNEDIOL | 21 | 2716 |
| 2-Butyne-1,4-diol | 36 | 2716 |
| BUTYRALDEHYDE | 18 | 1129 |
| BUTYRALDOXIME | 19 | 2840 |
| BUTYRIC ACID | 36 | 2820 |
| BUTYRIC ANHYDRIDE | 39 | 2739 |
| Butyrone | 15 | 2710 |
| BUTYRONITRILE | 17 | 2411 |
| Butyroyl chloride | 40 | 2353 |
| BUTYRYL CHLORIDE | 40 | 2353 |
| Buzz | 36 | 2810 |
| BZ | 36 | 2810 |
| CA | 36 | 1694 |
| Cable cutters, explosive | 03 | 0070 |
| CACODYLIC ACID | 34 | 1572 |
| CADMIUM COMPOUND | 37 | 2570 |
| CAESIUM | 26 | 1407 |
| CAESIUM HYDROXIDE | 40 | 2682 |
| CAESIUM HYDROXIDE SOLUTION | 40 | 2681 |
| CAESIUM NITRATE | 31 | 1451 |
| Caffeine | 34 | 1544 |
| Cajeputene | 14 | 2052 |
| CALCIUM | 26 | 1401 |
| CALCIUM ALLOYS, PYROPHORIC | 25 | 1855 |
| CALCIUM ARSENATE | 34 | 1573 |
| CALCIUM ARSENATE AND CALCIUM ARSENITE MIXTURE, SOLID | 34 | 1574 |
| Calcium bisulphate solution | 37 | 2693 |
| CALCIUM CARBIDE | 26 | 1402 |
| CALCIUM CHLORATE | 31 | 1452 |
| CALCIUM CHLORATE, AQUEOUS SOLUTION | 31 | 2429 |
| CALCIUM CHLORITE | 31 | 1453 |
| CALCIUM CYANAMIDE with more than 0.1% calcium carbide | 26 | 1403 |
| CALCIUM CYANIDE | 40 | 1575 |
| CALCIUM DITHIONITE (CALCIUM HYDROSULPHITE) | 25 | 1923 |
| CALCIUM HYDRIDE | 26 | 1404 |
| CALCIUM HYDROSULPHITE | 25 | 1923 |
| CALCIUM HYPOCHLORITE, DRY with more than 39% available chlorine (8.8% available oxygen) | 31 | 1748 |
| CALCIUM HYPOCHLORITE, DRY, CORROSIVE with more than 39% available chlorine (8.8% available oxygen) | 31 | 3485† |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| CALCIUM HYPOCHLORITE, HYDRATED, with not less than 5.5% but not more than 16% water | 31 | 2880 |
| CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE with not less than 5.5% but not more than 16% water | 31 | 3487† |
| CALCIUM HYPOCHLORITE, HYDRATED MIXTURE with not less than 5.5% but not more than 16% water | 31 | 2880 |
| CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, CORROSIVE with not less than 5.5% but not more than 16% water | 31 | 3487† |
| CALCIUM HYPOCHLORITE MIXTURE, DRY with more than 39% available chlorine (8.8% available oxygen) | 31 | 1748 |
| CALCIUM HYPOCHLORITE MIXTURE, DRY, CORROSIVE with more than 39% available chlorine (8.8% available oxygen) | 31 | 3485† |
| CALCIUM HYPOCHLORITE MIXTURE, DRY with more than 10% but not more than 39% available chlorine | 31 | 2208 |
| CALCIUM HYPOCHLORITE MIXTURE, DRY, CORROSIVE with more than 10% but not more than 39% available chlorine | 31 | 3486† |
| CALCIUM MANGANESE SILICON | 26 | 2844 |
| CALCIUM NITRATE | 31 | 1454 |
| CALCIUM OXIDE | 40 | 1910 |
| CALCIUM PERCHLORATE | 31 | 1455 |
| CALCIUM PERMANGANATE | 31 | 1456 |
| CALCIUM PEROXIDE | 31 | 1457 |
| CALCIUM PHOSPHIDE | 27 | 1360 |
| CALCIUM, PYROPHORIC | 25 | 1855 |
| CALCIUM RESINATE | 20 | 1313 |
| CALCIUM RESINATE, FUSED | 20 | 1314 |
| Calcium selenate | 34 | 2630 |
| CALCIUM SILICIDE | 26 | 1405 |
| Calcium silicon | 26 | 1405 |
| CALCIUM SILICON | 26 | 1406* |
| Calcium superoxide | 31 | 1457 |
| Camphanone | 20 | 2717 |
| CAMPHOR OIL | 15 | 1130 |
| CAMPHOR, synthetic | 20 | 2717 |
| CAPROIC ACID | 36 | 2829 |
| CARBAMATE PESTICIDE, LIQUID, FLAMMABLE, TOXIC, flashpoint less than 23°C | 16 | 2758 |
| CARBAMATE PESTICIDE, LIQUID, TOXIC | 34 | 2992 |
| CARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flashpoint not less than 23°C | 17 | 2991 |
| CARBAMATE PESTICIDE, SOLID, TOXIC | 34 | 2757 |
| Carbolic acid | 36 | 1671 |
| Carbolic acid | 36 | 2312 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Carbolic acid | 36 | 2821 |
| CARBON, ACTIVATED | 20 | 1362 |
| CARBON, animal or vegetable origin | 20 | 1361 |
| Carbon bisulphide | 16 | 1131 |
| Carbon, black (animal or vegetable origin) | 20 | 1361 |
| CARBON DIOXIDE | 09 | 1013 |
| Carbon dioxide and ethylene oxide mixture | 05D | 1041 |
| Carbon dioxide and ethylene oxide mixture | 06 | 1952 |
| Carbon dioxide and ethylene oxide mixture | 05D | 3300 |
| CARBON MONOXIDE AND HYDROGEN MIXTURE, COMPRESSED | 05 | 2600* |
| CARBON DIOXIDE AND NITROUS OXIDE MIXTURE | 06 | 1015* |
| CARBON DIOXIDE AND OXYGEN MIXTURE, COMPRESSED | 10 | 1014* |
| CARBON DIOXIDE, REFRIGERATED LIQUID | 09 | 2187 |
| CARBON DIOXIDE, SOLID (DRY ICE) | 09 | 1845 |
| CARBON DISULPHIDE | 16 | 1131 |
| Carbonic anhydride | 09 | 1013 |
| Carbonic anhydride | 09 | 1845 |
| Carbonic anhydride | 09 | 2187 |
| CARBON MONOXIDE, COMPRESSED | 05 | 1016 |
| Carbon oxysulphide | 05 | 2204 |
| CARBON REMOVER | 14 | 1132* |
| CARBON TETRABROMIDE | 34 | 2516 |
| CARBON TETRACHLORIDE | 34 | 1846 |
| Carbonyl chloride | 07 | 1076 |
| CARBONYL FLUORIDE | 07 | 2417 |
| CARBONYL SULPHIDE | 05 | 2204 |
| Cartridge cases, empty, primed | 03 | 0379 |
| Cartridge cases, empty, primed | 03 | 0055 |
| Cartridges, actuating, for fire extinguisher or apparatus valve | 03 | 0381 |
| Cartridges, actuating, for fire extinguisher or apparatus valve | 03 | 0275 |
| Cartridges, actuating, for fire extinguisher or apparatus valve | 02 | 0276 |
| Cartridges, actuating, for fire extinguisher or apparatus valve | 02 | 0323 |
| Cartridges, explosive | 02 | 0048 |
| CARTRIDGES, FLASH | 02 | 0049 |
| CARTRIDGES, FLASH | 02 | 0050 |
| CARTRIDGES FOR WEAPONS with bursting charge | 02 | 0005 |
| CARTRIDGES FOR WEAPONS with bursting charge | 02 | 0006 |
| CARTRIDGES FOR WEAPONS with bursting charge | 02 | 0007 |
| CARTRIDGES FOR WEAPONS with bursting charge | 02 | 0321 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| CARTRIDGES FOR WEAPONS with bursting charge | 03 | 0348 |
| CARTRIDGES FOR WEAPONS with bursting charge | 03 | 0412 |
| CARTRIDGES FOR WEAPONS, BLANK | 02 | 0326 |
| CARTRIDGES FOR WEAPONS, BLANK | 02 | 0413 |
| CARTRIDGES FOR WEAPONS, BLANK | 03 | 0014 |
| CARTRIDGES FOR WEAPONS, BLANK | 02 | 0327 |
| CARTRIDGES FOR WEAPONS, BLANK | 03 | 0338 |
| CARTRIDGES FOR WEAPONS, INERT PROJECTILE | 02 | 0328 |
| CARTRIDGES FOR WEAPONS, INERT PROJECTILE | 03 | 0012 |
| CARTRIDGES FOR WEAPONS, INERT PROJECTILE | 03 | 0339 |
| CARTRIDGES FOR WEAPONS, INERT PROJECTILE | 02 | 0417 |
| Cartridges, illuminating | 02 | 0171 |
| Cartridges, illuminating | 02 | 0254 |
| Cartridges, illuminating | 03 | 0297 |
| CARTRIDGES, OIL WELL | 02 | 0277 |
| CARTRIDGES, OIL WELL | 03 | 0278 |
| CARTRIDGES, POWER DEVICE | 02 | 0275 |
| CARTRIDGES, POWER DEVICE | 03 | 0276 |
| CARTRIDGES, POWER DEVICE | 03 | 0323 |
| CARTRIDGES, POWER DEVICE | 02 | 0381 |
| CARTRIDGES, SIGNAL | 02 | 0054 |
| CARTRIDGES, SIGNAL | 03 | 0312 |
| CARTRIDGES, SIGNAL | 03 | 0405 |
| CARTRIDGES, SMALL ARMS | 03 | 0012 |
| CARTRIDGES, SMALL ARMS | 03 | 0339 |
| CARTRIDGES, SMALL ARMS | 02 | 0417 |
| CARTRIDGES, SMALL ARMS, BLANK | 03 | 0014 |
| CARTRIDGES, SMALL ARMS, BLANK | 02 | 0327 |
| CARTRIDGES, SMALL ARMS, BLANK | 03 | 0338 |
| Cartridges, starter, jet engine | 02 | 0381 |
| Cartridges, starter, jet engine | 02 | 0275 |
| Cartridges, starter, jet engine | 03 | 0276 |
| Cartridges, starter, jet engine | 03 | 0323 |
| CASES, CARTRIDGE, EMPTY, WITH PRIMER | 03 | 0055 |
| CASES, CARTRIDGE, EMPTY, WITH PRIMER | 03 | 0379 |
| CASES, COMBUSTIBLE, EMPTY, WITHOUT PRIMER | 03 | 0446 |
| CASES, COMBUSTIBLE, EMPTY, WITHOUT PRIMER | 02 | 0447 |
| Casinghead gasoline | 14 | 1203 |
| CASTOR BEANS | 35 | 2969 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| CASTOR FLAKE | 35 | 2969 |
| CASTOR MEAL | 35 | 2969 |
| CASTOR POMACE | 35 | 2969 |
| CAUSTIC ALKALI LIQUID, N.O.S. | 37 | 1719 |
| Caustic potash | 37 | 1814 |
| Caustic soda | 37 | 1824 |
| Caustic soda liquor | 37 | 1824 |
| CELLS, CONTAINING SODIUM | 26 | 3292 |
| CELLULOID in block, rods, rolls, sheets, tubes, etc, except scrap | 52 | 2000 |
| CELLULOID, SCRAP | 23 | 2002 |
| Cement | 14 | 1133 |
| CERIUM, slabs, ingots or rods | 29 | 1333 |
| CERIUM, turnings or gritty powder | 26 | 3078 |
| Cer mishmetall | 29 | 1323 |
| CG | 07 | 1076 |
| Charcoal, activated | 20 | 1362 |
| Charcoal, non-activated | 20 | 1362 |
| CHARGES, BURSTING, PLASTICS BONDED | 02 | 0457 |
| CHARGES, BURSTING, PLASTICS BONDED | 02 | 0458 |
| CHARGES, BURSTING, PLASTICS BONDED | 03 | 0459 |
| CHARGES, BURSTING, PLASTICS BONDED | 03 | 0460 |
| CHARGES, DEMOLITION | 02 | 0048 |
| CHARGES, DEPTH | 02 | 0056 |
| Charges, expelling, explosive, for fire extinguishers | 02 | 0381 |
| Charges, expelling, explosive, for fire extinguishers | 02 | 0275 |
| Charges, expelling, explosive, for fire extinguishers | 03 | 0276 |
| Charges, expelling, explosive, for fire extinguishers | 03 | 0323 |
| CHARGES, EXPLOSIVE, COMMERCIAL without detonator | 02 | 0442 |
| CHARGES, EXPLOSIVE, COMMERCIAL without detonator | 02 | 0443 |
| CHARGES, EXPLOSIVE, COMMERCIAL without detonator | 03 | 0444 |
| CHARGES, EXPLOSIVE, COMMERCIAL without detonator | 03 | 0445 |
| CHARGES, PROPELLING | 02 | 0271 |
| CHARGES, PROPELLING | 02 | 0272 |
| CHARGES, PROPELLING | 02 | 0415 |
| CHARGES, PROPELLING | 02 | 0491 |
| CHARGES, PROPELLING, FOR CANNON | 02 | 0242 |
| CHARGES, PROPELLING, FOR CANNON | 02 | 0279 |
| CHARGES, PROPELLING, FOR CANNON | 02 | 0414 |
| CHARGES, PROPELLING, FOR ROCKET MOTORS | 02 | 0273* |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| CHARGES, PROPELLING, FOR ROCKET MOTORS | 02 | 0274* |
| CHARGES, PROPELLING, FOR ROCKET MOTORS | 02 | 0416* |
| CHARGES, SHAPED, FLEXIBLE, LINEAR | 03 | 0237 |
| CHARGES, SHAPED, FLEXIBLE, LINEAR | 02 | 0288 |
| CHARGES, SHAPED, without detonator | 02 | 0059 |
| CHARGES, SHAPED, without detonator | 02 | 0439 |
| CHARGES, SHAPED, without detonator | 03 | 0440 |
| CHARGES, SHAPED, without detonator | 03 | 0441 |
| CHARGES, SUPPLEMENTARY, EXPLOSIVE | 02 | 0060 |
| CHEMICAL KIT | 47 | 3316 |
| CHEMICAL SAMPLE, TOXIC, liquid or solid | 34 | 3315 |
| Chile saltpetre | 31 | 1498 |
| CHLORAL, ANHYDROUS, STABILIZED | 36 | 2075 |
| CHLORATE AND BORATE MIXTURE | 31 | 1458 |
| CHLORATE AND MAGNESIUM CHLORIDE MIXTURE, SOLID | 31 | 1459 |
| CHLORATE AND MAGNESIUM CHLORIDE MIXTURE SOLUTION | 31 | 3407 |
| CHLORATES, INORGANIC, N.O.S. | 31 | 1461 |
| CHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. | 31 | 3210 |
| CHLORIC ACID, AQUEOUS SOLUTION with not more than 10% chloric acid | 31 | 2626 |
| CHLORINATED ANTHRACENE OIL | 17 | 2230* |
| CHLORINE | 12 | 1017 |
| CHLORINE PENTAFLUORIDE | 12 | 2548 |
| CHLORINE TRIFLUORIDE | 12 | 1749 |
| CHLORITES, INORGANIC, N.O.S. | 31 | 1462 |
| CHLORITE SOLUTION | 37D | 1908 |
| Chloroacetaldehyde | 36 | 2232 |
| CHLOROACETIC ACID, MOLTEN | 36 | 3250 |
| CHLOROACETIC ACID, SOLID | 36 | 1751 |
| CHLOROACETIC ACID SOLUTION | 36 | 1750 |
| CHLOROACETONE, STABILIZED | 19D | 1695 |
| CHLOROACETONITRILE | 19 | 2668 |
| CHLOROACETOPHENONE, LIQUID | 36 | 3416 |
| CHLOROACETOPHENONE, SOLID | 36 | 1697 |
| CHLOROACETYL CHLORIDE | 39 | 1752 |
| CHLOROANILINES, LIQUID | 37 | 2019 |
| CHLOROANILINES, SOLID | 37 | 2018 |
| CHLOROANISIDINES | 35 | 2233 |
| CHLOROBENZENE | 17 | 1134 |
| CHLOROBENZOTRIFLUORIDES | 19 | 2234 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| p-CHLOROBENZOYL PEROXIDE | 32 | 2113* |
| p-CHLOROBENZOYL PEROXIDE | 32 | 2114* |
| p-CHLOROBENZOYL PEROXIDE | 32 | 2115* |
| CHLOROBENZYL CHLORIDES, LIQUID | 36 | 2235 |
| CHLOROBENZYL CHLORIDES, SOLID | 36 | 3427 |
| 1-Chloro-3-bromopropane | 34 | 2688 |
| 1-Chlorobutane | 18 | 1127 |
| 2-Chlorobutane | 18 | 1127 |
| CHLOROBUTANES | 18 | 1127 |
| CHLOROCRESOLS, SOLUTION | 35 | 2669 |
| CHLOROCRESOLS, SOLID | 35 | 3437 |
| 3-CHLORO-4-DIETHYLAMINOBENZENE-DIAZONIUM ZINC CHLORIDE | 21 | 3033* |
| CHLORODIFLUOROBROMOMETHANE (REFRIGERANT GAS R 12B1) | 06 | 1974 |
| 1-CHLORO-1,1-DIFLUOROETHANE (REFRIGERANT GAS R 142b) | 04 | 2517 |
| CHLORODIFLUOROMETHANE (REFRIGERANT GAS R 22) | 06 | 1018 |
| CHLORODIFLUOROMETHANE AND CHLOROPENTAFLUOROETHANE MIXTURE with fixed boiling point, with approximately 49% chlorodifluoromethane (REFRIGERANT GAS R 502) | 06 | 1973 |
| 3-Chloro-1,2-dihydroxypropane | 36 | 2689 |
| Chlorodimethyl ether | 19 | 1135 |
| CHLORODINITROBENZENES, LIQUID | 36D | 1577 |
| CHLORODINITROBENZENES, SOLID | 36D | 3441 |
| 2-CHLOROETHANAL | 36 | 2232 |
| Chloroethane | 04 | 1037 |
| Chloroethane nitrile | 19 | 2668 |
| 2-Chloroethanol | 19 | 1135 |
| CHLOROFORM | 34 | 1888 |
| CHLOROFORMATES, TOXIC, CORROSIVE, N.O.S. | 36 | 3277 |
| CHLOROFORMATES, TOXIC, CORROSIVE, FLAMMABLE, N.O.S. | 38 | 2742 |
| Chloromethane | 05 | 1063 |
| 1-Chloro-3-methylbutane | 18 | 1107 |
| 2-Chlor-2-methylbutane | 18 | 1107 |
| CHLOROMETHYL CHLOROFORMATE | 40 | 2745 |
| Chloromethyl cyanide | 19 | 2668 |
| CHLOROMETHYL ETHYL ETHER | 17 | 2354 |
| Chlormethyl methyl ether | 18 | 1239 |
| 3-CHLORO-4-METHYLPHENYL ISOCYANATE, LIQUID | 39 | 2236 |
| 3-CHLORO-4-METHYLPHENYL ISOCYANATE, SOLID | 39 | 3428 |
| 3-Chloro-2-methylprop-1-ene | 16P | 2554 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| CHLORONITROANILINES | 36 | 2237 |
| CHLORONITROBENZENES, SOLID | 35D | 1578 |
| CHLORONITROBENZENES, LIQUID | 35D | 3409 |
| CHLORONITROTOLUENES, LIQUID | 35 | 2433 |
| CHLORONITROTOLUENES, SOLID | 35 | 3457 |
| CHLOROTOLUIDINES, LIQUID | 36 | 3429 |
| CHLOROPENTAFLUOROETHANE (REFRIGERANT GAS R 115) | 06 | 1020 |
| 3-CHLOROPEROXYBENZOIC, ACID | 32 | 2755* |
| CHLOROPHENOLATES, LIQUID | 37 | 2904 |
| CHLOROPHENOLATES, SOLID | 37 | 2905 |
| CHLOROPHENOLS, LIQUID | 36 | 2021 |
| CHLOROPHENOLS, SOLID | 36 | 2020 |
| CHLOROPHENYLTRICHLOROSILANE | 39 | 1753 |
| CHLOROPICRIN | 37D | 1580 |
| CHLOROPICRIN AND METHYL BROMIDE MIXTURE with more than 25% chloropicrin | 07 | 1581 |
| CHLOROPICRIN AND METHYL CHLORIDE MIXTURE | 05 | 1582 |
| CHLOROPICRIN MIXTURE, N.O.S. | 37 | 1583 |
| CHLOROPLATINIC ACID, SOLID | 37 | 2507 |
| CHLOROPRENE, STABILIZED | 17P | 1991 |
| 1-CHLOROPROPANE | 16 | 1278 |
| 2-CHLOROPROPANE | 18 | 2356 |
| 3-Chloro-propanediol-1,2 | 36 | 2689 |
| 3-CHLOROPROPANOL-1 | 36 | 2849 |
| 2-CHLOROPROPENE | 18P | 2456 |
| 3-Chloropropene | 18 | 1100 |
| 3-Chloroprop-1-ene | 18 | 1100 |
| 2-CHLOROPROPIONIC ACID | 36 | 2511 |
| 2-CHLOROPYRIDINE | 36 | 2822 |
| CHLOROSILANES, CORROSIVE, N.O.S. | 39 | 2987 |
| CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S. | 25 | 2986 |
| CHLOROSILANES, FLAMMABLE, CORROSIVE, N.O.S. | 25 | 2985 |
| CHLOROSILANES, TOXIC, CORROSIVE, N.O.S. | 39 | 3361 |
| CHLOROSILANES, TOXIC, CORROSIVE, FLAMMABLE, N.O.S. | 25 | 3362 |
| CHLOROSILANES, WATER-REACTIVE, FLAMMABLE, CORROSIVE, N.O.S. | 26 | 2988 |
| CHLOROSULPHONIC ACID (with or without sulphur trioxide) | 40 | 1754 |
| 1-CHLORO-1,2,2,2-TETRAFLUOROETHANE (REFRIGERANT GAS R 124) | 06 | 1021 |
| Chlorotrifluoroethylene | 04P | 1082 |
| CHLOROTOLUENES | 18 | 2238 |
| 4-CHLORO-o-TOLUIDINE HYDROCHLORIDE, SOLID | 36 | 1579 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| 4-CHLORO-o-TOLUIDINE HYDROCHLORIDE SOLUTION | 36 | 3410 |
| CHLOROTOLUIDINES, SOLID | 36 | 2239 |
| CHLOROTOLUIDINES, LIQUID | 36 | 3429 |
| 1-CHLORO-2,2,2-TRIFLUOROETHANE (REFRIGERANT GAS R 133a) | 06 | 1983 |
| Chlorotrifluoroethylene | 04P | 1082 |
| CHLOROTRIFLUOROMETHANE (REFRIGERANT GAS R 13) | 06 | 1022 |
| CHLOROTRIFLUOROMETHANE AND TRIFLUOROMETHANE AZEOTROPIC MIXTURE with approximately 60% chlorotrifluoromethane (REFRIGERANT GAS R 503) | 06 | 2599 |
| Chromic acid, solid | 31 | 1463 |
| CHROMIC ACID SOLUTION | 37 | 1755 |
| CHROMIC FLUORIDE, SOLID | 37 | 1756 |
| CHROMIC FLUORIDE SOLUTION | 37 | 1757 |
| Chromic nitrate | 31 | 2720 |
| Chromium (VI) dichloride dioxide | 40 | 1758 |
| Chromium (III) fluoride | 37 | 1756 |
| CHROMIUM NITRATE | 31 | 2720 |
| Chromium (III) nitrate | 31 | 2720 |
| CHROMIUM OXYCHLORIDE | 40 | 1758 |
| CHROMIUM TRIOXIDE, ANHYDROUS | 31 | 1463 |
| CHROMOSULPHURIC ACID | 37 | 2240 |
| Chrysotile | 47 | 2590 |
| CIGARETTES | 20 | 1867* |
| Cinene | 14 | 2052 |
| Cinnamene | 19P | 2055 |
| Cinnamol | 19P | 2055 |
| CK | 07 | 1589 |
| Clinical specimens | 41 | 3373 |
| CLINICAL WASTE, UNSPECIFIED, N.O.S. | 41 | 3291 |
| CN | 36 | 1697 |
| COAL GAS, COMPRESSED | 05 | 1023 |
| COAL TAR DISTILLATES, FLAMMABLE | 14 | 1136 |
| COAL TAR DISTILLATE, HFP | 15 | 1137* |
| Coal tar naphtha | 14 | 2590 |
| Coal tar oil | 14 | 1136 |
| COATING SOLUTION (includes surface treatments or coatings used for industrial or other purposes such as vehicle undercoating, drum or barrel lining) | 14 | 1139 |
| COBALT NAPHTHENATES, POWDER | 20 | 2001 |
| COBALT RESINATE, PRECIPITATED | 20 | 1318 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Cocculus | 36 | 3172 |
| COCCULUS, SOLID | 34 | 1584* |
| Collodion cottons | 02 | 0340 |
| Collodion cottons | 02 | 0341 |
| Collodion cottons | 02 | 0342 |
| Collodion cottons | 52 | 2059 |
| Collodion cottons | 52 | 2555 |
| Collodion cottons | 52 | 2556 |
| Collodion cottons | 52 | 2557 |
| COMPONENTS, EXPLOSIVE TRAIN, N.O.S. | 02 | 0382 |
| COMPONENTS, EXPLOSIVE TRAIN, N.O.S. | 03 | 0383 |
| COMPONENTS, EXPLOSIVE TRAIN, N.O.S. | 03 | 0384 |
| COMPONENTS, EXPLOSIVE TRAIN, N.O.S. | 02 | 0461 |
| Composition B | 02 | 0118 |
| COMPRESSED GAS, N.O.S. | 06 | 1956 |
| COMPRESSED GAS, FLAMMABLE, N.O.S. | 04 | 1954 |
| COMPRESSED GAS, OXIDIZING, N.O.S. | 10 | 3156 |
| COMPRESSED GAS, TOXIC, N.O.S. | 07 | 1955 |
| COMPRESSED GAS, TOXIC, CORROSIVE, N.O.S. | 07 | 3304 |
| COMPRESSED GAS, TOXIC, FLAMMABLE, N.O.S. | 05 | 1953 |
| COMPRESSED GAS, TOXIC, FLAMMABLE, CORROSIVE, N.O.S. | 05 | 3305 |
| COMPRESSED GAS, TOXIC, OXIDIZING, N.O.S. | 12 | 3303 |
| COMPRESSED GAS, TOXIC, OXIDIZING, CORROSIVE, N.O.S. | 12 | 3306 |
| CONTRIVANCES, WATER-ACTIVATED with burster, expelling charge or propelling charge | 02 | 0248 |
| CONTRIVANCES, WATER-ACTIVATED with burster, expelling charge or propelling charge | 02 | 0249 |
| COPPER ACETOARSENITE | 34 | 1585 |
| COPPER ARSENITE | 34 | 1586 |
| Copper (II) arsenite | 34 | 1586 |
| COPPER BASED PESTICIDE, LIQUID, FLAMMABLE, TOXIC, flashpoint less than 23°C | 16 | 2776 |
| COPPER BASED PESTICIDE, LIQUID, TOXIC | 34 | 3010 |
| COPPER BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flashpoint not less than 23°C | 17 | 3009 |
| COPPER BASED PESTICIDE, SOLID, TOXIC | 34 | 2775 |
| COPPER CHLORATE | 31 | 2721 |
| Copper (II) chlorate | 31 | 2721 |
| COPPER CHLORIDE | 37 | 2802 |
| COPPER CYANIDE | 34 | 1587 |
| Copper selenate | 34 | 2630 |
| Copper selenite | 34 | 2630 |
| COPRA | 20 | 1363 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| CORD, DETONATING, flexible | 02 | 0065 |
| CORD, DETONATING, flexible | 03 | 0289 |
| CORD (FUSE), DETONATING, metal clad | 02 | 0102 |
| CORD (FUSE), DETONATING, metal clad | 02 | 0290 |
| CORD (FUSE), DETONATING, MILD EFFECT, metal clad | 03 | 0104 |
| CORD, IGNITER | 03 | 0066 |
| Cordite | 02 | 0160 |
| Cordite | 02 | 0161 |
| CORROSIVE LIQUID, N.O.S. | 37 | 1760 |
| CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. | 37 | 3264 |
| CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. | 37 | 3265 |
| CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. | 37 | 3266 |
| CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. | 37 | 3267 |
| CORROSIVE LIQUID, FLAMMABLE, N.O.S. | 18 | 2920 |
| CORROSIVE LIQUID, OXIDIZING, N.O.S. | 31 | 3093 |
| CORROSIVE LIQUID, SELF-HEATING, N.O.S. | 25 | 3301 |
| CORROSIVE LIQUID, TOXIC, N.O.S. | 37 | 2922 |
| CORROSIVE LIQUID, WATER-REACTIVE, N.O.S. | 26 | 3094 |
| CORROSIVE SOLID, N.O.S. | 37 | 1759 |
| CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. | 37 | 3260 |
| CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. | 37 | 3261 |
| CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. | 37 | 3262 |
| CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. | 37 | 3263 |
| CORROSIVE SOLID, FLAMMABLE, N.O.S. | 36 | 2921 |
| CORROSIVE SOLID, OXIDIZING, N.O.S. | 31 | 3084 |
| CORROSIVE SOLID, SELF-HEATING, N.O.S. | 23 | 3095 |
| CORROSIVE SOLID, TOXIC, N.O.S. | 37 | 2923 |
| CORROSIVE SOLID, WATER-REACTIVE, N.O.S. | 26 | 3096 |
| COTTON WASTE, OILY | 20 | 1364 |
| COTTON, WET | 20 | 1365 |
| COUMARIN DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC, flashpoint less than 23°C | 16 | 3024 |
| COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC | 34 | 3026 |
| COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flashpoint not less than 23°C | 17 | 3025 |
| COUMARIN DERIVATIVE PESTICIDE, SOLID, TOXIC | 34 | 3027 |
| Creosote | 36 | 2810 |
| Creosote salts | 20 | 1334 |
| CRESOLS, LIQUID | 36 | 2076 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| CRESOLS, SOLID | 36 | 3455 |
| CRESYLIC ACID | 36 | 2022 |
| Crocidolite | 47 | 2212 |
| CROTONALDEHYDE | 18P | 1143 |
| CROTONALDEHYDE, STABILIZED | 18P | 1143 |
| CROTONIC ACID, SOLID | 36 | 2823 |
| CROTONIC ACID, LIQUID | 36 | 3472 |
| Crotonic aldehyde, stabilized | 18P | 1143 |
| CROTONYLENE | 14D | 1144 |
| Crude naphtha | 14 | 1268 |
| CS | 36 | 2810 |
| Cumene | 19 | 1918 |
| CUMENE HYDROPEROXIDE | 32 | 2116* |
| CUMYL PEROXYNEODECANOATE | 33 | 2963* |
| CUMYL PEROXYPIVALATE | 33 | 2964* |
| Cupric chlorate | 31 | 2721 |
| CUPRIETHYLENEDIAMINE SOLUTION | 37 | 1761 |
| CUT BACKS, ASPHALT | 16 | 1999 |
| CUTTERS, CABLE, EXPLOSIVE | 03 | 0070 |
| CX | 36 | 2811 |
| CYANIDE SOLUTION, N.O.S. | 40 | 1935 |
| CYANIDES, INORGANIC, SOLID, N.O.S. | 40 | 1588 |
| Cyanides, organic, flammable, toxic, n.o.s. | 16 | 3273 |
| Cyanides, organic, toxic, n.o.s. | 35 | 3276 |
| Cyanides, organic, toxic, n.o.s. | 35 | 3439 |
| Cyanides, organic, toxic, flammable, n.o.s. | 16 | 2647 |
| Cyanoacetonitrile | 36 | 2647 |
| CYANOGEN | 05 | 1026 |
| CYANOGEN BROMIDE | 40 | 1889 |
| CYANOGEN CHLORIDE, STABILIZED | 07 | 1589 |
| CYANURIC CHLORIDE | 40 | 2670 |
| CYCLOBUTANE | 04 | 2601 |
| CYCLOBUTYL CHLOROFORMATE | 38 | 2744 |
| 1,5,9-CYCLODODECATRIENE | 36 | 2518 |
| CYCLOHEPTANE | 14 | 2241 |
| CYCLOHEPTATRIENE | 17 | 2603 |
| 1,3,5-Cycloheptatriene | 17 | 2603 |
| CYCLOHEPTENE | 14 | 2242 |
| 1,4-Cyclohexadienedione | 17 | 3054 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| CYCLOHEXANE | 14 | 1145 |
| Cyclehexanethiol | 17 | 3054 |
| CYCLOHEXANONE | 15 | 1915 |
| CYCLOHEXANONE PEROXIDE | 32 | 2896* |
| CYCLOHEXANONE PEROXIDE(S) | 32 | 2117* |
| CYCLOHEXANONE PEROXIDE(S) | 32 | 2118* |
| CYCLOHEXANONE PEROXIDE(S) | 32 | 2119* |
| CYCLOHEXENE | 14 | 2256 |
| CYCLOHEXENYLTRICHLOROSILANE | 39 | 1762 |
| CYCLOHEXYL ACETATE | 18 | 2243 |
| CYCLOHEXYLAMINE | 19 | 2357 |
| CYCLOHEXYL ISOCYANATE | 38 | 2488 |
| CYCLOHEXYL MERCAPTAN | 17 | 3054 |
| CYCLOHEXYLTRICHLOROSILANE | 39 | 1763 |
| CYCLONITE | 02 | 0072 |
| CYCLONITE | 02 | 0391 |
| CYCLONITE | 02 | 0483 |
| CYCLOOCTADIENE PHOSPHINES | 23 | 2940 |
| CYCLOOCTADIENES | 19P | 2520 |
| CYCLOOCTATETRAENE | 15P | 2358 |
| CYCLOPENTANE | 14 | 1146 |
| CYCLOPENTANOL | 17 | 2244 |
| CYCLOPENTANONE | 15 | 2245 |
| CYCLOPENTENE | 14 | 2246 |
| CYCLOPROPANE | 04 | 1027 |
| CYCLOTETRAMETHYLENETETRANITRAMINE (HMX; OCTOGEN), DESENSITIZED | 02 | 0484 |
| CYCLOTETRAMETHYLENETETRANITRAMINE (HMX; OCTOGEN), WETTED with not less than 15% water, by mass | 02 | 0226 |
| CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX) AND CYCLOTETRAMETHYLENETETRANITRAMINE (HMX; OCTOGEN) MIXTURE, DESENSITIZED with not less than 10% phlegmatizer, by mass | 02 | 0391 |
| CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX) AND CYCLOTETRAMETHYLENETETRANITRAMINE (HMX; OCTOGEN) MIXTURE, WETTED with not less than 15% water, by mass | 02 | 0391 |
| CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX), DESENSITIZED | 02 | 0483 |
| CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX), WETTED with not less than 15% water, by mass | 02 | 0072 |
| CYMENES | 19 | 2046 |
| Cymol | 19 | 2046 |
| DA | 34 | 1699 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| DANGEROUS GOODS IN APPARATUS | 47 | 3363 |
| DANGEROUS GOODS IN MACHINERY | 47 | 3363 |
| DC | 36 | 2810 |
| Deanol | 18 | 2051 |
| DECABORANE | 23 | 1868 |
| DECAHYDRONAPHTHALENE | 19 | 1147 |
| Decalin | 19 | 1147 |
| n-DECANE | 15 | 2247 |
| DECANOYL PEROXIDE | 33 | 2120* |
| DEFLAGRATING METAL SALTS OF AROMATIC NITRODERIVATIVES, N.O.S. | 02 | 0132 |
| Depth charge | 02 | 0056 |
| DESENSITIZED EXPLOSIVE, LIQUID, N.O.S. | 52 | 3379 |
| DESENSITIZED EXPLOSIVE, SOLID, N.O.S. | 52 | 3380 |
| Detonating relays | 02 | 0029 |
| Detonating relays | 02 | 0360 |
| Detonating relays | 03 | 0267 |
| Detonating relays | 03 | 0361 |
| Detonating relays | 03 | 0455 |
| Detonating relays | 03 | 0500 |
| DETONATOR ASSEMBLIES, NON-ELECTRIC, for blasting | 02 | 0360 |
| DETONATOR ASSEMBLIES, NON-ELECTRIC, for blasting | 03 | 0361 |
| DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting | 03 | 0500 |
| DETONATORS FOR AMMUNITION | 02 | 0073 |
| DETONATORS FOR AMMUNITION | 02 | 0364 |
| DETONATORS FOR AMMUNITION | 03 | 0365 |
| DETONATORS FOR AMMUNITION | 03 | 0366 |
| DETONATORS, ELECTRIC for blasting | 03 | 0255 |
| DETONATORS, ELECTRIC for blasting | 03 | 0030 |
| DETONATORS, ELECTRIC for blasting | 02 | 0456 |
| DETONATORS, NON-ELECTRIC for blasting | 03 | 0029 |
| DETONATORS, NON-ELECTRIC for blasting | 03 | 0267 |
| DETONATORS, NON-ELECTRIC for blasting | 02 | 0455 |
| DEUTERIUM, COMPRESSED | 04 | 1957 |
| DEVICES, SMALL, HYDROCARBON GAS POWERED with release device | 04 | 3150 |
| DIACETONE ALCOHOL | 16 | 1148 |
| DIACETONE ALCOHOL PEROXIDES | 33 | 2163* |
| Diagnostic specimens | 41 | 3373 |
| DIALLYLAMINE | 19 | 2359 |
| DIALLYL ETHER | 16P | 2360 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| 4,4'-DIAMINODIPHENYLMETHANE | 36 | 2651 |
| 1,2-Diaminoethane | 19 | 1604 |
| Diaminopropylamine | 36 | 2269 |
| DI-n-AMYLAMINE | 19 | 2841 |
| DIAZODINITROPHENOL, WETTED with not less than 40% water, or mixture of alcohol and water, by mass | 02 | 0074 |
| 2'DIAZO-1-1-NAPHTHIDE-4-SULPHOCHORIDE | 21 | 3042* |
| 2'DIAZO-1-1-NAPHTHIDE-5-SULPHOCHORIDE | 21 | 3043* |
| (DI)BENZOYL PEROXIDE | 32 | 2086* |
| Dibenzopyridine | 36 | 2713 |
| DIBENZYLDICHLOROSILANE | 39 | 2434 |
| DIBENZYL PEROXYDICARBONATE | 33 | 2149* |
| DIBORANE | 13 | 1911 |
| DIBROMOBENZENE | 115 | 2711* |
| 1,2-DIBROMOBUTAN-3-ONE | 37 | 2648 |
| 1,2-Dibromo-3-chloropropane | 36 | 2872 |
| DIBROMOCHLOROPROPANES | 36 | 2872 |
| DIBROMODIFLUOROMETHANE | 37 | 1941 |
| DIBROMOMETHANE | 37 | 2664 |
| DI-n-BUTYLAMINE | 36 | 2248 |
| DIBUTYLAMINOETHANOL | 36 | 2873 |
| 2-Dibutylaminoethanol | 36 | 2873 |
| N,N-Di-n-butylaminoethanol | 36 | 2873 |
| DI-(4-tert-BUTYLCYCLOHEXYL) PEROXYDICARBONATE | 33 | 2154* |
| DI-(4-tert-BUTYL CYCLOHEXYL) PEROXYDICARBONATE | 33 | 2894* |
| DIBUTYL ETHERS | 15 | 1149 |
| 2,2-DI-(tert-BUTYLPEROXY) BUTANE | 32 | 2111* |
| 1,1-DI-(tert-BUTYLPEROXY) CYCLOHEXANE | 32 | 2179* |
| 1,1-DI-(tert-BUTYLPEROXY) CYCLOHEXANE | 32 | 2180* |
| 1,2-DI-(tert-BUTYLPEROXY) CYCLOHEXANE | 32 | 2897* |
| 1,1-DI-(4-tert-BUTYLPEROXY) CYCLOHEXANE | 32 | 3069* |
| DI-(sec-BUTYL) PEROXYDICARBONATE | 33 | 2150* |
| DI-(sec-BUTYL) PEROXYDICARBONATE | 33 | 2151* |
| 1,4-DI-2(2-tert-BUTYLPEROXYISOPROPYL) BENZENE, and MIXTURES | 32 | 2112* |
| DI-(tert-BUTYLPEROXY) PHTHALATE | 32 | 2106* |
| DI-(tert-BUTYLPEROXY) PHTHALATE | 32 | 2107* |
| 2,2-DI-(tert-BUTYLPEROXY) PROPANE | 32 | 2883* |
| 2,2-DI-(tert-BUTYLPEROXY) PROPANE | 32 | 2884* |
| 2,2-DI-(tert-BUTYLPEROXY) PROPANE | 32 | 2885* |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| 1,1-DI-(tert-BUTYLPEROXY)-3,3,5-TRIMETHYL CYCLOHEXANE | 32 | 2145* |
| 1,1-DI-(tert-BUTYLPEROXY)-3,3,5-TRIMETHYL CYCLOHEXANE | 32 | 2146* |
| 1,1-DI-(tert-BUTYLPEROXY)-3,3,5-TRIMETHYL CYCLOHEXANE | 32 | 2147* |
| DICETYL PEROXYDICARBONATE | 33 | 2164* |
| DICETYL PEROXYDICARBONATE | 33 | 2895* |
| DICHLOROACETIC ACID | 36 | 1764 |
| 1,3-DICHLOROACETONE | 36 | 2649 |
| DICHLOROACETYL CHLORIDE | 39 | 1765 |
| DICHLOROANILINES, LIQUID | 36 | 1590 |
| DICHLOROANILINES, SOLID | 36 | 3442 |
| o-DICHLOROBENZENE | 35 | 1591 |
| (1,4)para-DICHLOROBENZENE | 35 | 1592* |
| 2,4-DICHLOROBENZOYL PEROXIDE | 32 | 2137* |
| 2,4-DICHLOROBENZOYL PEROXIDE | 32 | 2138* |
| 2,4-DICHLOROBENZOYL PEROXIDE | 32 | 2139* |
| 2,2'-DICHLORODIETHYL ETHER | 35 | 1916 |
| DICHLORODIFLUOROMETHANE (REFRIGERANT GAS R 12) | 06 | 1028 |
| DICHLORODIFLUOROMETHANE AND DIFLUOROETHANE AZEOTROPIC MIXTURE with approximately 74% dichlorodifluoromethane (REFRIGERANT GAS R 500) | 06 | 2602 |
| Dichlorodifluoromethane and ethylene oxide mixture | 07 | 3070 |
| DICHLORODIMETHYL ETHER, SYMMETRICAL | 36 | 2249 |
| 1,1-DICHLOROETHANE | 18 | 2362 |
| 1,2-Dichloroethane | 18 | 1184 |
| 1,2-DICHLOROETHYLENE | 18P | 1150 |
| Di(2-chloroethyl) ether | 35 | 1916 |
| DICHLOROFLUOROMETHANE (REFRIGERANT GAS R 21) | 06 | 1029 |
| alpha-Dichlorohydrin | 35 | 1916 |
| DICHLOROISOCYANURIC ACID, DRY | 31 | 2465 |
| DICHLOROISOCYANURIC ACID SALTS | 31 | 2465 |
| DICHLOROISOPROPYL ETHER | 36 | 2490 |
| DICHLOROMETHANE | 37 | 1593 |
| 1,1-DICHLORO-1-NITROETHANE | 36 | 2650 |
| DICHLOROPENTANES | 17 | 1152 |
| Dichlorophenol | 36 | 2020 |
| Dichlorophenol | 36 | 2021 |
| DICHLOROPHENYL ISOCYANATES | 39 | 2250 |
| DICHLOROPHENYLTRICHLOROSILANE | 39 | 1766 |
| 1,2-DICHLOROPROPANE | 18 | 1279 |
| 1,3-DICHLOROPROPANOL-2 | 36 | 2750 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| 1,3-Dichloro-2-propanone | 36 | 2649 |
| DICHLOROPROPENES | 19 | 2047 |
| DICHLOROSILANE | 05 | 2189 |
| 1,2-DICHLORO-1,1,2,2-TETRAFLUOROETHANE (REFRIGERANT GAS R 114) | 07 | 1958 |
| Dichloro-s-triazine-2,4,6-trione | 31 | 2465 |
| DICUMYL PEROXIDE | 32 | 2121* |
| 1,4-Dicyanobutane | 36 | 2205 |
| Dicycloheptadiene | 14P | 2251 |
| DICYCLOHEXYLAMINE | 36 | 2565 |
| Dicyclohexylamine nitrite | 20 | 2687 |
| DICYCLOHEXYLAMMONIUM NITRITE | 20 | 2687 |
| DICYCLOHEXYL PEROXYDICARBONATE | 33 | 2152* |
| DICYCLOHEXYL PEROXYDICARBONATE | 33 | 2153* |
| DICYCLOPENTADIENE | 19D | 2048 |
| 2,2-DI-(4,4-DI-tert-BUTYLPEROXYCYCLOHEXYL) PROPANE | 32 | 2168* |
| 1,2-DI-(DIMETHYLAMINO) ETHANE | 18 | 2372 |
| DIDYMIUM NITRATE | 31 | 1465 |
| Dieldrin | 34 | 2761 |
| DIESEL FUEL | 15 | 1202 |
| 1,1-Diethoxyethane | 14 | 1088 |
| 1,2-Diethoxyethane | 15 | 1153 |
| DIETHOXYMETHANE | 14 | 2373 |
| 2,5-DIETHOXY-4-MORPHOLINOBENZENE-DIAZONIUM ZINC CHLORIDE | 20 | 3036* |
| 3,3-DIETHOXYPROPENE | 14 | 2374 |
| DIETHYL ALUMINIUM CHLORIDE | 25 | 1101* |
| DIETHYLAMINE | 18 | 1154 |
| 2-DIETHYLAMINOETHANOL | 19 | 2686 |
| 3-DIETHYLAMINOPROPYLAMINE | 19 | 2684 |
| N,N-DIETHYLANILINE | 36 | 2432 |
| DIETHYLBENZENE | 17 | 2049 |
| Diethylcarbinol | 16 | 1105 |
| DIETHYL CARBONATE | 15 | 2366 |
| DIETHYLCARBINOL (3-Pentanol) | 16 | 2706* |
| DIETHYLDICHLOROSILANE | 39 | 1767 |
| Diethylenediamine | 36 | 2579 |
| DIETHYLENEGLYCOL DINITRATE, DESENSITISZED with not less than 25% non volatile, water-insoluble phlegmatizer, by mass | 02 | 0075 |
| DIETHYLENETRIAMINE | 36 | 2079 |
| N,N-Diethylethanolamine | 19 | 2686 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| DIETHYL ETHER (ETHYL ETHER) | 14D | 1155 |
| DI-2-(ETHYLHEXYL) PEROXYDICARBONATE | 33 | 2122* |
| DI-2-(ETHYLHEXYL) PEROXYDICARBONATE | 33 | 2123* |
| DI-(2-ETHYLHEXYL) PEROXYDICARBONATE | 33 | 2960* |
| N,N-DIETHYLETHYLENEDIAMINE | 19 | 2685 |
| Di-(2-ethylhexyl) phosphoric acid | 36 | 1902 |
| DIETHYL KETONE | 14 | 1156 |
| DIETHYLMAGNESIUM | 25 | 1367* |
| DIETHYL PEROXYDICARBONATE | 33 | 2175* |
| DIETHYL SULPHATE | 36 | 1594 |
| DIETHYL SULPHIDE | 26 | 2375 |
| DIETHYLTHIOPHOSPHORYL CHLORIDE | 38 | 2751 |
| DIETHYLZINC | 25 | 1366* |
| Diethylzinc | 26 | 3394 |
| 2,4-Difluoroaniline | 04 | 2517 |
| Difluorochloroethane | 04 | 2517 |
| 1,1-DIFLUOROETHANE (REFRIGERANT GAS R 152a) | 04 | 1030 |
| 1,1-DIFLUOROETHYLENE (REFRIGERANT GAS R 1132a) | 04P | 1959 |
| DIFLUOROMETHANE (REFRIGERANT GAS R 32) | 04 | 3252 |
| Difluoromethane, pentafluroethane, and 1,1,1,2-tetrafluoroethane zeotropic mixture with approximately 23% difluoromethane and 35% pentafluoroethane | 06 | 3340 |
| Difluoromethane, pentafluroethane, and 1,1,1,2-tetrafluoroethane zeotropic mixture with approximately 23% difluoromethane and 35% pentafluoroethane | 06 | 3338 |
| Difluoromethane, pentafluroethane, and 1,1,1,2-tetrafluoroethane zeotropic mixture with approximately 23% difluoromethane and 35% pentafluoroethane | 06 | 3339 |
| DIFLUOROPHOSPHORIC ACID, ANHYDROUS | 37 | 1768 |
| 2,2-DIHYDROPEROXY PROPANE | 32 | 2178* |
| 2,3-DIHYDROPYRAN | 14 | 2376 |
| p-Dihydroxybenzene | 36 | 2662 |
| DI-(1-HYDROXYCYCLOHEXYL) PEROXIDE | 32 | 2148* |
| DIISOBUTYLAMINE | 19 | 2361 |
| DIISOBUTYLENE, ISOMERIC COMPOUNDS | 14 | 2050 |
| alpha-Diisobutylene | 14 | 2050 |
| beta-Diisobutylene | 14 | 2050 |
| DIISOBUTYL KETONE | 15 | 1157 |
| DIISOBUTYRYL PEROXIDE | 33 | 2182* |
| DIISOOCTYL ACID PHOSPHATE | 36 | 1902 |
| DIISOPROPYLAMINE | 18 | 1158 |
| DI-ISO-PROPYLBENZENE HYDROPEROXIDE | 32 | 2171* |
| DIISOPROPYL ETHER | 14 | 1159 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| DIISOPROPYLETHANOLAMINE | 14 | 2825* |
| DIISOPROPYL PEROXYDICARBONATE | 33 | 2133* |
| DIISOPROPYL PEROXYDICARBONATE | 33 | 2134* |
| DI-ISO-TRIDECYL PEROXYDICARBONATE | 33 | 2889* |
| DIKETENE, STABILIZED | 39P | 2521 |
| DILAUROYL PEROXIDE | 32 | 2124* |
| DILAUROYL PEROXIDE | 32 | 2893* |
| 1,1-DIMETHOXYETHANE | 14 | 2377 |
| 1,2-DIMETHOXYETHANE | 14 | 2252 |
| Dimethoxystrychnine | 35 | 1570 |
| DIMETHYLAMINE, ANHYDROUS | 05 | 1032 |
| DIMETHYLAMINE AQUEOUS SOLUTION | 18 | 1160 |
| 2-DIMETHYLAMINOACETONITRILE | 18 | 2378 |
| 4-DIMETHYLAMINO-6-(2-DIMETHYLAMINOETHOXY) TOLUENE-2-DIAZONIUM ZINC CHLORIDE | 22 | 3039* |
| 2-DIMETHYLAMINOETHANOL | 18 | 2051 |
| 2-DIMETHYLAMINOETHYL ACRYLATE | 36 | 3302 |
| 2-DIMETHYLAMINOETHYL METHACRYLATE | 36P | 2522 |
| N,N-DIMETHYLANILINE | 36 | 2253 |
| Dimethylarsenic acid | 34 | 1572 |
| N,N-Dimethylbenzylamine | 36 | 2619 |
| 2,3-DIMETHYLBUTANE | 14 | 2457 |
| 1,3-DIMETHYLBUTYLAMINE | 18 | 2379 |
| DIMETHYLCARBAMOYL CHLORIDE | 39 | 2262 |
| DIMETHYL CARBONATE | 18 | 1161 |
| DIMETHYLCYCLOHEXANES | 14 | 2263 |
| N,N-DIMETHYLCYCLOHEXYLAMINE | 19 | 2264 |
| 2,5-DIMETHYL-2,5-DI-(BENZOYLPEROXY) HEXANE | 32 | 2172* |
| 2,5-DIMETHYL-2,5-DI-(BENZOYLPEROXY) HEXANE | 32 | 2173* |
| 2,5-DIMETHYL-2,5-DI-(tert-BUTYLPEROXY) DEXYNE-3 | 32 | 2158* |
| 2,5-DIMETHYL-2,5-DI-(tert-BUTYLPEROXY) DEXYNE-3 | 32 | 2159* |
| 2,5-DIMETHYL-2,5-DI-(tert-BUTYLPEROXY) HEXANE | 32 | 2155* |
| 2,5-DIMETHYL-2,5-DI-(tert-BUTYLPEROXY) HEXANE | 32 | 2156* |
| 2,5-DIMETHYL-2,5-DI-(BENZOYLPEROXY) HEXANE | 32 | 2959* |
| DIMETHYLDICHLOROSILANE | 25 | 1162 |
| DIMETHYLDIETHOXYSILANE | 14 | 2380 |
| 2,5-DIMETHYL-2,5-DI-(2-ETHYLHEXANOYLPEROXY) HEXANE | 33 | 2157* |
| 2,5-DIMETHYL-2,5-DIHYDROPEROXY HEXANE | 32 | 2174* |
| DIMETHYLDIOXANES | 15 | 2707 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| DIMETHYL DISULPHIDE | 18 | 2381 |
| 2,5-DIMETHYL-2,5-DI-(3,5,5-TRIETHYL HEXANOYLPEROXY)-HEXANE | 32 | 3060* |
| Dimethylethanolamine | 18 | 2051 |
| DIMETHYL ETHER | 04D | 1033 |
| N,N-DIMETHYLFORMAMIDE | 19 | 2265 |
| DIMETHYLHYDRAZINE, SYMMETRICAL | 16 | 2382 |
| DIMETHYLHYDRAZINE, UNSYMMETRICAL | 18 | 1163 |
| 1,1-Dimethylhydrazine | 18 | 1163 |
| DIMETHYLMAGNESIUM | 25 | 1368* |
| N,N-Dimethyl-4-nitrosoaniline | 18 | 2051 |
| 2,2-DIMETHYLPROPANE | 04 | 2044 |
| DIMETHYL-N-PROPYLAMINE | 19 | 2266 |
| DIMETHYL SULPHATE | 39 | 1595 |
| DIMETHYL SULPHIDE | 18 | 1164 |
| DIMETHYL THIOPHOSPHORYL CHLORIDE | 39 | 2267 |
| DIMETHYLZINC | 25 | 1370* |
| Dimethylzinc | 26 | 3394 |
| DIMYRISTYL PEROXYDICARBONATE | 33 | 2595* |
| DIMYRISTYL PEROXYDICARBONATE | 33 | 2892* |
| DINGU | 02 | 0489 |
| DINITROANILINES | 36D | 1596 |
| DINITROBENZENES, LIQUID | 35D | 1597 |
| DINITROBENZENES, SOLID | 36 | 3443 |
| Dinitrochlorobenzene | 36D | 1577 |
| DINITRO-o-CRESOL | 36D | 1598 |
| DINITROGEN TETROXIDE (NITROGEN DIOXIDE) | 12 | 1067 |
| DINITROGLYCOLURIL (DINGU) | 02 | 0489 |
| DINITROPHENOL dry or wetted with less than 15% water, by mass | 02 | 0076 |
| DINITROPHENOL SOLUTION | 37 | 1599 |
| DINITROPHENOL, WETTED with not less than 15% water, by mass | 52 | 1320 |
| DINITROPHENOLATES, alkali metals, dry or wetted with less than 15% water, by mass | 02 | 0077 |
| DINITROPHENOLATES, WETTED with not less than 15% water, by mass | 52 | 1321 |
| DINITRORESORCINOL, dry or wetted with less than 15% water, by mass | 02 | 0078 |
| DINITRORESORCINOL, WETTED with not less than 15% water, by mass | 52 | 1322 |
| DINITROSOBENZENE | 02 | 0406 |
| N,N'-DINITROSO-PENTAMETHYLENE TETRAMINE | 21 | 2972* |
| N,N'-DINITROSO-N,N'-DIMETHYL TEREPHTHALIMIDE | 21 | 2973* |
| Dinitrotoluene mixed with sodium chlorate | 02 | 0083 |
| DINITROTOLUENES, LIQUID | 35D | 2038 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| DINITROTOLUENES, MOLTEN | 35D | 1600 |
| DINITROTOLUENES, SOLID | 35D | 3454 |
| DI-n-NONANOYL PEROXIDE | 33 | 2130* |
| DI-n-OCTANOYL PEROXIDE | 33 | 2129* |
| DIOXANE | 14 | 1165 |
| DIOXOLANE | 14 | 1166 |
| DIPENTENE | 14 | 2052 |
| DIPEROXY AZELAIC ACID | 33 | 2958* |
| DIPEROXY DODECANE DIACID | 33 | 3063* |
| DI-(2-PHENOXYETHYL)-PEROXYDICARBONATE | 32 | 3058* |
| DI-(2-PHENOXYETHYL)-PEROXYDICARBONATE | 32 | 3059* |
| DIPHENYLAMINE CHLOROARSINE | 37 | 1698 |
| DIPHENYLCHLOROARSINE, LIQUID | 34 | 1699 |
| DIPHENYLCHLOROARSINE, SOLID | 34 | 3450 |
| DIPHENYLDICHLOROSILANE | 39 | 1769 |
| DIPHENYLMETHANE-4,4'-DIISOCYANATE (MDI) | 39 | 2489* |
| DIPHENYLMETHYL BROMIDE | 36 | 1770 |
| DIPHENYLOXIDE-4,4'-DISULPHOHYDRAZIDE | 20 | 2951* |
| Diphosgene | 07 | 1076 |
| DIPICRYLAMINE | 02 | 0079 |
| DIPICRYL SULPHIDE, dry or wetted with less than 10% water, by mass | 02 | 0401 |
| DIPICRYL SULPHIDE, WETTED with not less than 10% water, by mass | 52 | 2852 |
| DIPROPYLAMINE | 18 | 2383 |
| 4-DIPROPYLAMINO-BENZENE-DIAZONIUM ZINC CHLORIDE | 21 | 3034* |
| Dipropylene triamine | 36 | 2269 |
| DI-n-PROPYL ETHER | 14 | 2384 |
| DIPROPYL KETONE | 15 | 2710 |
| DI-n-PROPYL PEROXYDICARBONATE | 33 | 2176* |
| DISINFECTANT, LIQUID, CORROSIVE, N.O.S. | 36 | 1903 |
| DISINFECTANT, LIQUID, TOXIC, N.O.S. | 34 | 3142 |
| DISINFECTANT, SOLID, TOXIC, N.O.S. | 34 | 1601 |
| DISODIUM TRIOXOSILICATE | 37 | 3253 |
| DISUCCINIC ACID PEROXIDE | 32 | 2135* |
| DISUCCINIC ACID PEROXIDE | 33 | 2962* |
| DI-(3,5,-TRIMETHYL-1,2-DIOXOLANYL-3) PEROXIDE | 33 | 2597* |
| DIVINYL ETHER, STABILIZED | 14P | 1167 |
| DM | 37 | 1698 |
| DODECYLTRICHLOROSILANE | 39 | 1771 |
| DP | 07 | 1076 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| DRIERS, PAINT or VARNISH, LIQUID, N.O.S. | 14 | 1168* |
| DRIERS, PAINT or VARNISH, SOLID, N.O.S. | 20 | 1371* |
| DRY ICE | 09 | 1845 |
| DYE INTERMEDIATE, LIQUID, CORROSIVE, N.O.S. | 37 | 2801 |
| DYE INTERMEDIATE, LIQUID, TOXIC, N.O.S. | 34 | 1602 |
| DYE INTERMEDIATE, SOLID, CORROSIVE, N.O.S. | 37 | 3147 |
| DYE INTERMEDIATE, SOLID, TOXIC, N.O.S. | 34 | 3143 |
| DYE, LIQUID, CORROSIVE, N.O.S. | 37 | 2801 |
| DYE, LIQUID, TOXIC, N.O.S. | 34 | 1602 |
| DYE, SOLID, CORROSIVE, N.O.S. | 37 | 3147 |
| DYE, SOLID, TOXIC, N.O.S. | 34 | 3143 |
| Dynamite | 02 | 0081 |
| ED | 34 | 1892 |
| Electric storage batteries | 37 | 2794 |
| Electric storage batteries | 37 | 2795 |
| Electric storage batteries | 37 | 2800 |
| Electric storage batteries | 37 | 3028 |
| Electrolyte (acid or alkaline) for batteries | 37 | 2796 |
| Electrolyte (acid or alkaline) for batteries | 37 | 2797 |
| ELEVATED TEMPERATURE LIQUID, N.O.S., at or above 100°C and below its flashpoint (including molten metals, molten salts, etc) | 15 | 3257 |
| ELEVATED TEMPERATURE LIQUID, FLAMMABLE, N.O.S. with a flashpoint above 60.5°C, at or above its flashpoint | 15 | 3256 |
| ELEVATED TEMPERATURE SOLID, N.O.S., at or above 240°C | 47 | 3258 |
| ENGINE, FUEL CELL, FLAMMABLE GAS POWERED | 14 | 3166 |
| ENGINE, FUEL CELL, FLAMMABLE LIQUID POWERED | 14 | 3166 |
| ENGINE, INTERNAL COMBUSTION | 14 | 3166 |
| Engines, rocket | 02 | 0322 |
| Engines, rocket | 02 | 0250 |
| ENGINE STARTING FLUID | 04 | 1960* |
| ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. | 47 | 3082 |
| ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. | 47 | 3077 |
| EPIBROMOHYDRIN | 18 | 2558 |
| EPICHLOROHYDRIN | 18P | 2023 |
| 1,2-Epoxybutane, stabilized | 14P | 3022 |
| Epoxyethane | 05D | 1040 |
| 1,2-EPOXY-3-ETHOXYPROPANE | 15 | 2752 |
| 2,3-Epoxy-1-propanal | 19P | 2622 |
| 2,3-Epoxypropyl ethyl ether | 15 | 2752 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| ERADICATORS, PAINT or GREASE, LIQUID | 19 | 1850* |
| ESTERS, N.O.S. | 14 | 3272 |
| ETHANE | 04 | 1035 |
| ETHANE, REFRIGERATED LIQUID | 04 | 1961 |
| Ethanethiol | 16 | 2363 |
| ETHANOL (ETHYL ALCOHOL) | 14 | 1170 |
| ETHANOL AND GASOLINE MIXTURE | 14 | 3475 |
| ETHANOL AND PETROL MIXTURE | 14 | 3475 |
| ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) | 14 | 1170 |
| ETHANOLAMINE or ETHANOLAMINE SOLUTION | 36 | 2491 |
| Ether | 14D | 1155 |
| ETHERS, N.O.S. | 14 | 3271 |
| 2-Ethoxyethanol | 15 | 1171 |
| 2-Ethoxyethyl acetate | 19 | 1172 |
| Ethoxy propane-1 | 14 | 2615 |
| ETHYL 2-CHLOROPROPIONATE | 19 | 2935 |
| Ethyl-alpha-chloropropionate | 19 | 2935 |
| ETHYL ACETATE | 18 | 1173 |
| ETHYLACETYLENE, STABILIZED | 04P | 2452 |
| ETHYL ACRYLATE, STABILIZED | 18P | 1917 |
| ETHYL ALCOHOL | 14 | 1170 |
| ETHYL ALCOHOL SOLUTION | 14 | 1170 |
| ETHYLALUMINIUM DICHLORIDE | 25 | 1924* |
| ETHYLALUMINIUM SESQUICHLORIDE | 25 | 1925* |
| ETHYLAMINE | 05 | 1036 |
| ETHYLAMINE, AQUEOUS SOLUTION with not less than 50% but not more than 70% ethylamine | 18 | 2270 |
| ETHYL AMYL KETONE | 15 | 2271 |
| N-ETHYLANILINE | 36 | 2272 |
| 2-ETHYLANILINE | 36 | 2273 |
| ETHYLBENZENE | 16 | 1175 |
| N-ETHYL-N-BENZYLANILINE | 36 | 2274 |
| N-ETHYLBENZYLTOLUIDINES, LIQUID | 36 | 2753 |
| N-ETHYLBENZYLTOLUIDINES, SOLID | 36 | 3460 |
| ETHYL BORATE | 38 | 1176 |
| ETHYL BROMIDE | 17 | 1891 |
| ETHYL BROMOACETATE | 38 | 1603 |
| 2-ETHYLBUTANOL | 17 | 2275 |
| 2-ETHYLBUTYL ACETATE | 19 | 1177 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| 2-Ethylbutyl acetate | 19 | 1177 |
| ETHYL BUTYL ETHER | 14 | 1179 |
| 2-ETHYLBUTYRALDEHYDE | 18 | 1178 |
| ETHYL BUTYRATE | 19 | 1180 |
| ETHYL CHLORIDE | 04 | 1037 |
| ETHYL CHLOROACETATE | 38 | 1181 |
| Ethyl chlorocarbonate | 38 | 1182 |
| ETHYL CHLOROFORMATE | 38 | 1182 |
| ETHYL 2-CHLOROPROPIONATE | 19 | 2935 |
| Ethyl-alpha-chloropropionate | 19 | 2935 |
| ETHYL CHLOROTHIOFORMATE | 38 | 2826 |
| ETHYL CROTONATE | 18 | 1862 |
| ETHYL CYANOACETATE | 39 | 2666* |
| ETHYL-3,3-DI-(tert-BUTYLPEROXY) BUTYRATE | 32 | 2184* |
| ETHYL-3,3-DI-(tert-BUTYLPEROXY) BUTYRATE | 32 | 2185* |
| ETHYL-3,3-DI-(tert-BUTYLPEROXY) BUTYRATE | 32 | 2598* |
| ETHYLDICHLOROARSINE | 34 | 1892 |
| ETHYLDICHLOROSILANE | 27 | 1183 |
| ETHYLENE | 04P | 1962 |
| ETHYLENE, ACETYLENE AND PROPYLENE MIXTURE, REFRIGERATED LIQUID containing at least 71.5% ethylene with not more than 22.5% acetylene and not more than 6% propylene | 04 | 3138 |
| Ethylene chloride | 18 | 2362 |
| ETHYLENE CHLOROHYDRIN | 19 | 1135 |
| ETHYLENEDIAMINE | 19 | 1604 |
| ETHYLENE DIBROMIDE | 37 | 1605 |
| Ethylene dibromide and methyl bromide, liquid mixture | 34 | 1647 |
| ETHYLENE DICHLORIDE | 18 | 1184 |
| ETHYLENE GLYCOL DIETHYL ETHER | 15 | 1153 |
| ETHYLENE GLYCOL MONOBUTYL ETHER | 35 | 2369* |
| ETHYLENE GLYCOL MONOETHYL ETHER | 15 | 1171 |
| ETHYLENE GLYCOL MONOETHYL ETHER ACETATE | 19 | 1172 |
| ETHYLENE GLYCOL MONOMETHYL ETHER | 15 | 1188 |
| ETHYLENE GLYCOL MONOMETHYL ETHER ACETATE | 19 | 1189 |
| ETHYLENEIMINE, STABILIZED | 18P | 1185 |
| ETHYLENE OXIDE | 05P | 1040 |
| ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE with more than 87% ethylene oxide | 05D | 3300 |
| ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE with more than 9% but not more than 87% ethylene oxide | 05DP | 1041 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE with not more than 9% ethylene oxide | 06 | 1952 |
| ETHYLENE OXIDE AND CHLOROTETRAFLUOROETHANE MIXTURE with not more than 8.8% ethylene oxide | 06 | 3297 |
| ETHYLENE OXIDE AND DICHLORODIFLUOROMETHANE MIXTURE with not more than 12.5% ethylene oxide | 07 | 3070 |
| ETHYLENE OXIDE AND PENTAFLUOROETHANE MIXTURE with not more than 7.9% ethylene oxide | 06 | 3298 |
| ETHYLENE OXIDE AND PROPYLENE OXIDE MIXTURE, with not more than 30% ethylene oxide | 16P | 2983 |
| ETHYLENE OXIDE AND TETRAFLUOROETHANE MIXTURE with not more than 5.6% ethylene oxide | 06 | 3299 |
| ETHYLENE OXIDE WITH NITROGEN up to a total pressure of 1 MPa (10 bar) at 50°C | 05P | 1040 |
| ETHYLENE, REFRIGERATED LIQUID | 04 | 1038 |
| ETHYL ETHER | 14D | 1155 |
| ETHYL FLUORIDE (REFRIGERANT GAS R 161) | 04 | 2453 |
| ETHYL FORMATE | 18 | 1190 |
| Ethylhexaldehydes | 19 | 1191 |
| 2-ETHYLHEXYLAMINE | 36 | 2276 |
| 2-ETHYLHEXYL CHLOROFORMATE | 39 | 2748 |
| Ethylidene chloride | 18 | 2362 |
| ETHYL ISOBUTYRATE | 18 | 2385 |
| ETHYL ISOCYANATE | 38 | 2481 |
| ETHYL LACTATE | 19 | 1192 |
| ETHYL MERCAPTAN | 16 | 2363 |
| ETHYL METHACRYLATE, STABILIZED | 19P | 2277 |
| ETHYL METHYL ETHER | 04 | 1039 |
| ETHYL METHYL KETONE (METHYL ETHYL KETONE) | 14 | 1193 |
| ETHYL NITRITE SOLUTION | 18 | 1194 |
| ETHYL ORTHOFORMATE | 19 | 2524 |
| ETHYL OXALATE | 39 | 2525 |
| ETHYLPHENYLDICHLOROSILANE | 39 | 2435 |
| 1-ETHYLPIPERIDINE | 18 | 2386 |
| ETHYL PROPIONATE | 18 | 1195 |
| ETHYL PROPYL ETHER | 14 | 2615 |
| Ethyl silicate | 19 | 1292 |
| Ethyl sulphate | 36 | 1594 |
| N-ETHYLTOLUIDINES | 36 | 2754 |
| ETHYLTRICHLOROSILANE | 25 | 1196 |
| EXPLOSIVE, BLASTING, TYPE A | 02 | 0081 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| EXPLOSIVE, BLASTING, TYPE B | 02 | 0082 |
| EXPLOSIVE, BLASTING, TYPE B | 02 | 0331 |
| EXPLOSIVE, BLASTING, TYPE C | 02 | 0083 |
| EXPLOSIVE, BLASTING, TYPE D | 02 | 0084 |
| EXPLOSIVE, BLASTING, TYPE E | 02 | 0241 |
| EXPLOSIVE, BLASTING, TYPE E | 02 | 0332 |
| Explosives, emulsion | 02 | 0241 |
| Explosives, emulsion | 02 | 0332 |
| Explosive, seismic | 02 | 0081 |
| Explosive, seismic | 02 | 0082 |
| Explosive, seismic | 02 | 0083 |
| Explosive, seismic | 02 | 0331 |
| Explosive, slurry | 02 | 0241 |
| Explosive, slurry | 02 | 0332 |
| Explosive, water gel | 02 | 0241 |
| Explosive, water gel | 02 | 0332 |
| EXTRACTS, AROMATIC, LIQUID | 14 | 1169 |
| EXTRACTS, FLAVOURING, LIQUID | 14 | 1197 |
| FABRICS, ANIMAL, N.O.S. with oil | 23 | 1373 |
| FABRICS IMPREGNATED WITH WEAKLY NITRATED NITROCELLULOSE, N.O.S. | 20 | 1353 |
| FABRICS, SYNTHETIC, N.O.S. with oil | 23 | 1373 |
| FABRICS, VEGETABLE, N.O.S. with oil | 23 | 1373 |
| FERRIC ARSENATE | 34 | 1606 |
| FERRIC ARSENITE | 34 | 1607 |
| FERRIC CHLORIDE, ANHYDROUS | 40 | 1773 |
| FERRIC CHLORIDE SOLUTION | 37 | 2582 |
| FERRIC NITRATE | 31 | 1466 |
| FERROCERIUM | 29 | 1323 |
| FERROSILICON with 30% or more but less than 90% silicon | 27 | 1408 |
| FERROUS ARSENATE | 34 | 1608 |
| Ferrous chloride, solid | 37 | 1759 |
| Ferrous chloride, solution | 37 | 1760 |
| FERROUS METAL BORINGS in a form liable to self-heating | 29 | 2793 |
| FERROUS METAL CUTTINGS in a form liable to self-heating | 29 | 2793 |
| FERROUS METAL SHAVINGS in a form liable to self-heating | 29 | 2793 |
| FERROUS METAL TURNINGS in a form liable to self-heating | 29 | 2793 |
| FERTILIZER AMMONIATING SOLUTION with free ammonia | 07 | 1043 |
| Fertilizer with ammonium nitrate, n.o.s. | 50 | 2067 |
| Fertilizer with ammonium nitrate, n.o.s. | 50 | 2071 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| FIBRES, ANIMAL burnt, wet or damp | 23 | 1372 |
| FIBRES, ANIMAL, N.O.S. with oil | 23 | 1373 |
| FIBRES or FABRICS IMPREGNATED WITH WEAKLY NITRATED NITROCELLULOSE, N.O.S. | 20 | 1353 |
| FIBRES, SYNTHETIC, N.O.S. with oil | 23 | 1373 |
| FIBRES, VEGETABLE burnt, wet or damp | 23 | 1372 |
| FIBRES, VEGETABLE, DRY | 20 | 3360 |
| FIBRES, VEGETABLE, N.O.S. with oil | 23 | 1373 |
| FILLERS, liquid | 14 | 1263 |
| Films, nitrocellulose base, from which gelatin has been removed; film scrap, | 23 | 2002 |
| FILMS, NITROCELLULOSE BASE, gelatin coated, except scrap | 20 | 1324 |
| FIRE EXTINGUISHER CHARGES, corrosive liquid | 37 | 1774 |
| Fire extinguisher charges, expelling, explosive | 02 | 0381 |
| Fire extinguisher charges, expelling, explosive | 02 | 0275 |
| Fire extinguisher charges, expelling, explosive | 03 | 0276 |
| Fire extinguisher charges, expelling, explosive | 03 | 0323 |
| FIRE EXTINGUISHERS with compressed or liquefied gas | 08 | 1044 |
| FIRELIGHTERS, SOLID with flammable liquid | 20 | 2623 |
| FIREWORKS | 02 | 0333 |
| FIREWORKS | 02 | 0334 |
| FIREWORKS | 02 | 0335 |
| FIREWORKS | 03 | 0336 |
| FIREWORKS | 03 | 0337 |
| FIRST AID KIT | 47 | 3316 |
| Fish meal, stabilized | 47 | 2216 |
| FISH MEAL (FISH SCRAP), STABILIZED | 47 | 2216 |
| Fish scrap, stabilized | 47 | 2216 |
| FISH MEAL (FISH SCRAP), UNSTABILIZED | 23 | 1374 |
| Fischer Tropsch gas | 05 | 2600 |
| Flammable gas in lighters | 04 | 1057 |
| FLAMMABLE LIQUID, N.O.S. | 14 | 1993 |
| FLAMMABLE LIQUID, CORROSIVE, N.O.S. | 18 | 2924 |
| FLAMMABLE LIQUID PREPARATIONS, N.O.S. | 14 | 1142* |
| FLAMMABLE LIQUID, TOXIC, N.O.S. | 16 | 1992 |
| FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. | 18 | 3286 |
| FLAMMABLE SOLID, CORROSIVE, INORGANIC, N.O.S. | 36 | 3180 |
| FLAMMABLE SOLID, CORROSIVE, ORGANIC, N.O.S. | 36 | 2925 |
| FLAMMABLE SOLID, INORGANIC, N.O.S. | 20 | 3178 |
| FLAMMABLE SOLID, ORGANIC, N.O.S. | 20 | 1325 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| FLAMMABLE SOLID, ORGANIC, MOLTEN, N.O.S. | 20 | 3176 |
| FLAMMABLE SOLID, OXIDIZING, N.O.S. | 31 | 3097 |
| FLAMMABLE SOLID, TOXIC, INORGANIC, N.O.S. | 20 | 3179 |
| FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. | 20 | 2926 |
| FLARES, AERIAL | 02 | 0093 |
| FLARES, AERIAL | 03 | 0403 |
| FLARES, AERIAL | 03 | 0404 |
| FLARES, AERIAL | 02 | 0420 |
| FLARES, AERIAL | 02 | 0421 |
| Flares, aeroplane | 02 | 0420 |
| Flares, aeroplane | 02 | 0421 |
| Flares, aeroplane | 02 | 0093 |
| Flares, aeroplane | 03 | 0403 |
| Flares, aeroplane | 03 | 0404 |
| Flares, highway, Flares, distress, small, Flares, railway or highway | 03 | 0191 |
| Flares, highway, Flares, distress, small, Flares, railway or highway | 03 | 0373 |
| FLARES, SURFACE | 02 | 0092 |
| FLARES, SURFACE | 02 | 0418 |
| FLARES, SURFACE | 02 | 0419 |
| Flares, water-activated | 02 | 0248 |
| Flares, water-activated | 02 | 0249 |
| FLASH POWDER | 02 | 0094 |
| FLASH POWDER | 02 | 0305 |
| Flue dusts, toxic | 35 | 1563 |
| Fluoric acid | 40 | 1790 |
| FLUORINE, COMPRESSED | 12 | 1045 |
| FLUOROACETIC ACID | 39 | 2642 |
| FLUOROANILINES | 36 | 2941 |
| 2-Fluoroaniline | 36 | 2941 |
| 4-Fluoroaniline | 36 | 2941 |
| 4-FLUOROANILINE | 36 | 2994* |
| o-Fluoroaniline | 36 | 2941 |
| p-Fluoroaniline | 36 | 2941 |
| FLUOROBENZENE | 17 | 2387 |
| FLUOROBORIC ACID | 37 | 1775 |
| Fluoroethane | 37 | 2453 |
| Fluoroform | 06 | 1984 |
| Fluoromethane | 04 | 2454 |
| FLUOROPHOSPHORIC ACID, ANHYDROUS | 37 | 1776 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| FLUOROSILICATES, N.O.S. | 34 | 2856 |
| FLUOROSILICIC ACID | 37 | 1778 |
| FLUOROSULPHONIC ACID | 40 | 1777 |
| FLUOROTOLUENES | 16 | 2388 |
| FORMALDEHYDE SOLUTION, FLAMMABLE | 19 | 1198 |
| FORMALDEHYDE SOLUTION with not less than 25% formaldehyde | 19 | 2209 |
| Formalin | 19 | 1198 |
| Formalin | 19 | 2209 |
| Formamidine sulphinic acid | 25 | 3341 |
| FORMIC ACID with more than 85% acid by mass | 36 | 1779 |
| FORMIC ACID with not less than 10% but not more than 85% acid by mass | 36 | 3412 |
| FORMIC ACID with not less than 5% but less than 10% acid by mass | 36 | 1779 |
| Formic aldehyde | 19 | 1198 |
| Formic aldehyde | 19 | 2209 |
| 2-Formyl-3,4-dihydro-2H-pyran | 19P | 2607 |
| FRACTURING DEVICES, EXPLOSIVE without detonator, for oil wells | 02 | 0099 |
| FUEL, AVIATION, TURBINE ENGINE | 14 | 1863 |
| FUEL CELL CARTRIDGES containing corrosive substances | 36 | 3477 |
| FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT containing corrosive substances | 36 | 3477 |
| FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT containing corrosive substances | 36 | 3477 |
| FUEL CELL CARTRIDGES containing flammable liquids | 15 | 3473 |
| FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT containing flammable liquids | 15 | 3473 |
| FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT containing flammable liquids | 15 | 3473 |
| FUEL CELL CARTRIDGES containing hydrogen in metal hydride | 04 | 3479 |
| FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT containing hydrogen in metal hydride | 04 | 3479 |
| FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT containing hydrogen in metal hydride | 04 | 3479 |
| FUEL CELL CARTRIDGES containing liquefied flammable gases | 04 | 3478 |
| FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT containing liquefied flammable gases | 04 | 3478 |
| FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT containing liquefied flammable gases | 04 | 3478 |
| FUEL CELL CARTRIDGES containing water-reactive substances | 15 | 3476 |
| FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT containing water-reactive substances | 15 | 3476 |
| FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT containing water-reactive substances | 15 | 3476 |
| FUEL, PYROPHORIC, N.O.S. | 23 | 1375* |
| Fumaroyl dichloride | 39 | 1780 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| FUMARYL CHLORIDE | 39 | 1780 |
| FUMIGATED CARGO TRANSPORT UNIT | 07 | 3359 |
| FURALDEHYDES | 19P | 1199 |
| FURAN | 14 | 2389 |
| FURFURYL ALCOHOL | 36 | 2874 |
| FURFURYLAMINE | 19 | 2526 |
| Furyl carbinol | 36 | 2874 |
| FUSE, DETONATING, metal clad | 02 | 0102 |
| FUSE, DETONATING, metal clad | 02 | 0290 |
| FUSE, DETONATING, MILD EFFECT, metal clad | 03 | 0104 |
| FUSE, IGNITER, tubular, metal clad | 03 | 0103 |
| FUSE, NON-DETONATING | 02 | 0101 |
| FUSEL OIL | 15 | 1201 |
| FUSE, SAFETY | 03 | 0105 |
| Fuze, combination, percussion or time | 02 | 0106 |
| Fuze, combination, percussion or time | 02 | 0107 |
| Fuze, combination, percussion or time | 02 | 0257 |
| Fuze, combination, percussion or time | 03 | 0316 |
| Fuze, combination, percussion or time | 03 | 0317 |
| Fuze, combination, percussion or time | 03 | 0367 |
| Fuze, combination, percussion or time | 03 | 0368 |
| FUZES, DETONATING | 02 | 0106 |
| FUZES, DETONATING | 02 | 0107 |
| FUZES, DETONATING | 03 | 0257 |
| FUZES, DETONATING | 03 | 0367 |
| FUZES, DETONATING with protective features | 02 | 0408 |
| FUZES, DETONATING with protective features | 02 | 0409 |
| FUZES, DETONATING with protective features | 03 | 0410 |
| FUZES, IGNITING | 02 | 0316 |
| FUZES, IGNITING | 03 | 0317 |
| FUZES, IGNITING | 03 | 0368 |
| GA | 36 | 2810 |
| GALLIUM | 30 | 2803 |
| GAS CARTRIDGES without a release device, non-refillable. | 04 | 2037 |
| GAS DRIPS, HYDROCARBON | 14 | 1864* |
| Gas drips, hydrocarbon | 14 | 3295 |
| GAS OIL | 15 | 1202 |
| GASOLINE | 14 | 1203 |
| Gasoline, casinghead | 14 | 1203 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| GASOLINE AND ETHANOL MIXTURE | 14 | 3475 |
| GAS, REFRIGERATED LIQUID, N.O.S. | 06 | 3158 |
| GAS, REFRIGERATED LIQUID, FLAMMABLE, N.O.S. | 04 | 3312 |
| GAS, REFRIGERATED LIQUID, OXIDIZING, N.O.S. | 10 | 3311 |
| GAS SAMPLE, NON-PRESSURIZED, FLAMMABLE, N.O.S., not refrigerated liquid | 04 | 3167 |
| GAS SAMPLE, NON-PRESSURIZED, TOXIC, N.O.S., not refrigerated liquid | 07 | 3169 |
| GAS SAMPLE, NON-PRESSURIZED, TOXIC, FLAMMABLE, N.O.S., not refrigerated liquid | 05 | 3168 |
| GB | 36 | 2810 |
| GD | 36 | 2810 |
| Gelatin, blasting | 02 | 0081 |
| Gelatin, dynamites | 02 | 0081 |
| GENETICALLY MODIFIED MICRO-ORGANISMS | 47 | 3245 |
| GENETICALLY MODIFIED ORGANISMS | 47 | 3245 |
| GERMANE | 05 | 2192 |
| Germanium hydride | 05 | 2192 |
| GF | 36 | 2810 |
| Glycer-1,3-dichlorohydrin | 36 | 2750 |
| GLYCEROL alpha-MONOCHLOROHYDRIN | 36 | 2689 |
| Glyceryl trinitrate | 02 | 0143 |
| Glyceryl trinitrate | 02 | 0144 |
| Glyceryl trinitrate | 52 | 1204 |
| Glyceryl trinitrate | 52 | 3064 |
| GLYCIDALDEHYDE | 19P | 2622 |
| GRENADES, hand or rifle, with bursting charge | 02 | 0284 |
| GRENADES, hand or rifle, with bursting charge | 02 | 0285 |
| GRENADES, hand or rifle, with bursting charge | 02 | 0292 |
| GRENADES, hand or rifle, with bursting charge | 02 | 0293 |
| Grenades, illuminating | 02 | 0171 |
| Grenades, illuminating | 02 | 0254 |
| Grenades, illuminating | 03 | 0297 |
| GRENADES, PRACTICE, hand or rifle | 03 | 0110 |
| GRENADES, PRACTICE, hand or rifle | 02 | 0318 |
| GRENADES, PRACTICE, hand or rifle | 02 | 0372 |
| GRENADES, PRACTICE, hand or rifle | 03 | 0452 |
| Grenades, smoke | 02 | 0015 |
| Grenades, smoke | 02 | 0245 |
| Grenades, smoke | 02 | 0016 |
| Grenades, smoke | 02 | 0246 |
| Grenades, smoke | 03 | 0303 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| GUANIDINE NITRATE | 31 | 1467 |
| GUANYL NITROSAMINOGUANYLIDENE HYDRAZINE, WETTED with not less than 30% water, by mass | 02 | 0113 |
| GUANYL NITROSAMINOGUANYLTETRAZENE (TETRAZENE), WETTED with not less than 30% water, or mixture of alcohol and water, by mass | 02 | 0114 |
| GUNPOWDER, COMPRESSED | 02 | 0028 |
| GUNPOWDER, granular or as a meal | 02 | 0027 |
| GUNPOWDER, IN PELLETS | 02 | 0028 |
| Gutta percha solution | 02 | 0027 |
| GUTTA PERCHA, SOLUTION, FLAMMABLE | 14 | 1205* |
| H | 36 | 2810 |
| HAFNIUM POWDER, DRY | 25 | 2545 |
| HAFNIUM POWDER, WETTED with not less than 25% water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced, particle size less than 840 microns | 29 | 1326 |
| HALOGENATED IRRITATING LIQUID, N.O.S. | 19 | 1610* |
| HAY | 20 | 1327 |
| HD | 36 | 2810 |
| HEATING OIL, LIGHT | 15 | 1202 |
| Heavy hydrogen | 04 | 1957 |
| HELIUM, COMPRESSED | 08 | 1046 |
| HELIUM, REFRIGERATED LIQUID | 08 | 1963 |
| HEPTAFLUOROPROPANE (REFRIGERANT GAS R 227) | 08 | 3296 |
| n-HEPTALDEHYDE | 19 | 3056 |
| n-Heptanal | 19 | 3056 |
| HEPTANES | 14 | 1206 |
| 4-Heptanone | 15 | 2710 |
| n-HEPTENE | 14 | 2278 |
| HEXACHLOROACETONE | 37 | 2661 |
| HEXACHLOROBENZENE | 35 | 2729 |
| HEXACHLOROBUTADIENE | 34 | 2279 |
| Hexachloro-1,3-butadiene | 34 | 2279 |
| HEXACHLOROCYCLOPENTADIENE | 34 | 2646 |
| HEXACHLOROPHENE | 34 | 2875 |
| Hexachloro-2-propanone | 37 | 2661 |
| HEXADECYLTRICHLOROSILANE | 39 | 1781 |
| HEXADIENE | 14 | 2458 |
| HEXAETHYL TETRAPHOSPHATE | 35 | 1611 |
| HEXAETHYL TETRAPHOSPHATE AND COMPRESSED GAS MIXTURE | 07 | 1612 |
| HEXAFLUOROACETONE | 07 | 2420 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| HEXAFLUOROACETONE HYDRATE, LIQUID | 34 | 2552 |
| HEXAFLUOROACETONE HYDRATE, SOLID | 34 | 3436 |
| HEXAFLUOROETHANE (REFRIGERANT GAS R 116) | 06 | 2193 |
| HEXAFLUOROPHOSPHORIC ACID | 37 | 1782 |
| HEXAFLUOROPROPYLENE (REFRIGERANT GAS R 1216) | 06P | 1858 |
| Hexahydrocresol | 17 | 2617 |
| Hexahydromethyl phenol | 17 | 2617 |
| HEXALDEHYDE | 19 | 1207 |
| HEXAMETHYLENEDIAMINE, SOLID | 36 | 2280 |
| HEXAMETHYLENEDIAMINE SOLUTION | 36 | 1783 |
| HEXAMETHYLENE DIISOCYANATE | 39 | 2281 |
| HEXAMETHYLENEIMINE | 18 | 2493 |
| HEXAMETHYLENETETRAMINE | 20 | 1328 |
| 3,3,6,6,9,9-HEXAMETHYL-1,2,4,5-TETRAOXACYCLONONANE | 32 | 2165* |
| 3,3,6,6,9,9-HEXAMETHYL-1,2,4,5-TETRAOXACYCLONONANE | 32 | 2166* |
| 3,3,6,6,9,9-HEXAMETHYL-1,2,4,5-TETRAOXACYCLONONANE | 32 | 2167* |
| Hexamine | 20 | 1328 |
| HEXANES | 14 | 1208 |
| HEXANITRODIPHENYLAMINE (DIPICRYLAMINE; HEXYL) | 02 | 0079 |
| HEXANITROSTILBENE | 02 | 0392 |
| Hexanoic acid | 20 | 1328 |
| HEXANOLS | 17 | 2282 |
| 1-HEXENE | 14 | 2370 |
| HEXOGEN | 02 | 0072 |
| HEXOGEN | 02 | 0391 |
| HEXOGEN | 02 | 0483 |
| HEXOLITE, dry or wetted with less than 15% water, by mass | 02 | 0118 |
| HEXOTOL | 02 | 0118 |
| HEXOTONAL | 02 | 0393 |
| HEXOTONAL, cast | 02 | 0393 |
| HEXYL | 02 | 0079 |
| HEXYLTRICHLOROSILANE | 39 | 1784 |
| HL | 36 | 2810 |
| HMX | 02 | 0226 |
| HMX | 02 | 0391 |
| HMX | 02 | 0484 |
| HN-1 | 36 | 2810 |
| HN-2 | 36 | 2810 |
| HN-3 | 36 | 2810 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| HYDRAZINE, ANHYDROUS | 18D | 2029 |
| HYDRAZINE, AQUEOUS SOLUTION with more than 37% hydrazine, by mass | 19D | 2030 |
| HYDRAZINE, AQUEOUS SOLUTION with not more than 37% hydrazine, by mass | 34 | 3293 |
| HYDRAZINE AQUEOUS SOLUTION, FLAMMABLE, with more than 37% hydrazine, by mass | 36 | 3484† |
| Hydrazine hydrate | 19D | 2030 |
| Hydrides, metal, water-reactive, n.o.s. | 26 | 1409 |
| HYDRIODIC ACID | 37 | 1787 |
| Hydroiodic acid, anhydrous | 07 | 2197 |
| HYDROBROMIC ACID | 37 | 1788 |
| HYDROCARBON GAS MIXTURE, COMPRESSED, N.O.S. | 04 | 1964 |
| HYDROCARBON GAS MIXTURE, LIQUEFIED, N.O.S. such as mixtures A, A01, A02, A0, A1, B1, B2, B or C | 04 | 1965 |
| HYDROCARBON GAS REFILLS FOR SMALL DEVICES with release device | 04 | 3150 |
| HYDROCARBONS, LIQUID, N.O.S. | 14 | 3295 |
| HYDROCHLORIC ACID | 40 | 1789 |
| HYDROCYANIC ACID, AQUEOUS SOLUTION with not more than 20% hydrogen cyanide | 37D | 1613 |
| HYDROFLUORIC ACID AND SULPHURIC ACID MIXTURE | 40 | 1786 |
| HYDROFLUORIC ACID, with more than 60% hydrofluoric acid | 40 | 1790 |
| HYDROFLUORIC ACID, with not more than 60% hydrofluoric acid | 40 | 1790 |
| Hydrofluoroboric acid | 37 | 1775 |
| Hydrofluorosilicic acid | 37 | 1778 |
| HYDROGEN AND METHANE MIXTURE, COMPRESSED | 04 | 2034 |
| Hydrogen arsenide | 05 | 2188 |
| HYDROGEN BROMIDE, ANHYDROUS | 07 | 1048 |
| Hydrogen bromide solution | 37 | 1788 |
| HYDROGEN CHLORIDE, ANHYDROUS | 07 | 1050 |
| HYDROGEN CHLORIDE, REFRIGERATED LIQUID | 07 | 2186 |
| HYDROGEN, COMPRESSED | 04 | 1049 |
| HYDROGEN CYANIDE, AQUEOUS SOLUTION with not more than 20% hydrogen cyanide | 37D | 1613 |
| HYDROGEN CYANIDE, SOLUTION IN ALCOHOL, with not more than 45% hydrogen cyanide | 16 | 3294 |
| HYDROGEN CYANIDE, STABILIZED containing less than 3% water | 05DP | 1051 |
| HYDROGEN CYANIDE, STABILIZED, containing less than 3% water and absorbed in a porous inert material | 18D | 1614 |
| HYDROGENDIFLUORIDES,SOLID, N.O.S. | 37 | 1740 |
| HYDROGENDIFLUORIDES SOLUTION, N.O.S. | 37 | 3471 |
| HYDROGEN FLUORIDE, ANHYDROUS | 07 | 1052 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Hydrogen fluoride solution | 40 | 1790 |
| HYDROGEN IN A METAL HYDRIDE STORAGE SYSTEM | 04 | 3468 |
| HYDROGEN IN A METAL HYDRIDE STORAGE SYSTEM CONTAINED IN EQUIPMENT | 04 | 3468 |
| HYDROGEN IN A METAL HYDRIDE STORAGE SYSTEM PACKED WITH EQUIPMENT | 04 | 3468 |
| HYDROGEN IODIDE, ANHYDROUS | 07 | 2197 |
| Hydrogen iodide solution | 37 | 1787 |
| HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, with acid(s), water and not more than 5% peroxyacetic acid, STABILIZED | 31 | 3149 |
| HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 8% but less than 20% hydrogen peroxide (stabilized as necessary) | 31 | 2984 |
| HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 20% but not more than 60% hydrogen peroxide (stabilized as necessary) | 31 | 2014 |
| HYDROGEN PEROXIDE, AQUEOUS SOLUTION, STABILIZED with more than 60% hydrogen peroxide | 31 | 2015 |
| HYDROGEN PEROXIDE, STABILIZED | 31 | 2015 |
| HYDROGEN, REFRIGERATED LIQUID | 04 | 1966 |
| HYDROGEN SELENIDE, ANHYDROUS | 05 | 2202 |
| Hydrogen silicide | 13D | 2203 |
| HYDROGEN SULPHIDE | 05 | 1053 |
| Hydroquinol | 36 | 2662 |
| HYDROQUINONE | 36 | 2662* |
| HYDROQUINONE SOLUTION | 36 | 3435* |
| Hydroselenic acid | 05 | 2202 |
| Hydrosilicofluoric acid | 37 | 1778 |
| 1-HYDROXYBENZOTRIAZOLE, ANHYDROUS, dry or wetted with less than 20% water, by mass | 02 | 0508 |
| 1-HYDROXYBENZOTRIAZOLE, ANHYDROUS, WETTED (Aust) with not less than 20% water by mass | 52 | 3474 |
| 1-HYDROXYBENZOTRIAZOLE MONOHYDRATE | 52 | 3474 |
| 3-Hydroxybutan-2-one | 15P | 2621 |
| HYDROXYLAMINE SULPHATE | 37 | 2865 |
| 3-(2-HYDROXYETHOXY)-4-PYRROLIDIN-1-YL-BENZENE-DIAZONIUM ZINC CHLORIDE | 22 | 3035* |
| 1-Hydroxy-3-methyl-2-penten-4-yne | 19P | 2705 |
| 3-Hydroxyphenol | 36 | 2876 |
| HYPOCHLORITES, INORGANIC, N.O.S. | 31 | 3212 |
| HYPOCHLORITE SOLUTION | 37 | 1791 |
| IGNITERS | 02 | 0121 |
| IGNITERS | 02 | 0314 |
| IGNITERS | 02 | 0315 |
| IGNITERS | 03 | 0325 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| IGNITERS | 03 | 0454 |
| IGNITER FOR AIRCRAFT THRUST DEVICE | 20 | 2792* |
| 3,3'-IMINODIPROPYLAMINE | 36 | 2269 |
| Indiarubber | 14 | 1287 |
| INFECTIOUS SUBSTANCE, AFFECTING ANIMALS only | 41 | 2900 |
| INFECTIOUS SUBSTANCE, AFFECTING HUMANS | 41 | 2814 |
| INK | 15 | 2867* |
| Ink, printer's, flammable, n.o.s. | 16 | 1210 |
| INSECTICIDE GAS, N.O.S. | 06 | 1968 |
| INSECTICIDE GAS, FLAMMABLE, N.O.S. | 05 | 3354 |
| INSECTICIDE GAS, TOXIC, N.O.S. | 07 | 1967 |
| INSECTICIDE GAS, TOXIC, FLAMMABLE, N.O.S. | 05 | 3355 |
| IODINE | 37 | 3495† |
| IODINE MONOCHLORIDE | 40 | 1792 |
| IODINE PENTAFLUORIDE | 28 | 2495 |
| 2-IODOBUTANE | 16 | 2390 |
| Iodomethane | 34 | 2644 |
| IODOMETHYLPROPANES | 16 | 2391 |
| IODOPROPANES | 17 | 2392 |
| alpha-Iodotoluene | 39 | 2653 |
| I.p.d.i. | 39 | 2290 |
| Iron chloride, anhydrous | 40 | 1773 |
| Iron (III) chloride, anhydrous | 40 | 1773 |
| Iron chloride solution | 37 | 2582 |
| IRON OXIDE, SPENT obtained from coal gas purification | 25 | 1376 |
| IRON PENTACARBONYL | 23D | 1994 |
| Iron perchloride, anhydrous | 40 | 1773 |
| Iron powder, pyrophoric | 23 | 1383 |
| Iron sesquichloride, anhydrous | 40 | 1773 |
| IRON SPONGE, SPENT obtained from coal gas purification | 25 | 1376 |
| Iron swarf | 29 | 2793 |
| ISOBUTANE | 04 | 1969 |
| ISOBUTANOL (ISOBUTYL ALCOHOL) | 17 | 1212 |
| Isobutene | 17 | 1055 |
| ISOBUTYL ACETATE | 18 | 1213 |
| ISOBUTYL ACRYLATE, STABILIZED | 19P | 2527 |
| ISOBUTYL ALCOHOL | 17 | 1212 |
| ISOBUTYL ALDEHYDE | 18 | 2045 |
| ISOBUTYLAMINE | 18 | 1214 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| ISOBUTYLENE | 04 | 1055 |
| ISOBUTYL FORMATE | 18 | 2393 |
| ISOBUTYL ISOBUTYRATE | 19 | 2528 |
| ISOBUTYL ISOCYANATE | 38 | 2486 |
| ISOBUTYL METHACRYLATE, STABILIZED | 19DP | 2283 |
| ISOBUTYL PROPIONATE | 18 | 2394 |
| ISOBUTYRALDEHYDE (ISOBUTYL ALDEHYDE) | 18 | 2045 |
| ISOBUTYRIC ACID | 17 | 2529 |
| ISOBUTYRIC ANHYDRIDE | 38 | 2530* |
| ISOBUTYRONITRILE | 17 | 2284 |
| ISOBUTYRYL CHLORIDE | 38 | 2395 |
| ISOCYANATES | 38 | 2479* |
| ISOCYANATES, FLAMMABLE, TOXIC, N.O.S. | 38 | 2478 |
| ISOCYANATES, N.O.S. or ISOCYANATE SOLUTION, TOXIC, N.O.S. | 32 | 2207* |
| ISOCYANATE SOLUTION, FLAMMABLE, TOXIC, N.O.S. | 38 | 2478 |
| ISOCYANATE SOLUTION, TOXIC, N.O.S. | 38 | 2206 |
| ISOCYANATE SOLUTION, TOXIC, FLAMMABLE, N.O.S. | 38 | 3080 |
| ISOCYANATES, TOXIC, N.O.S. | 38 | 2206 |
| ISOCYANATES, TOXIC, FLAMMABLE, N.O.S. | 38 | 3080 |
| ISOCYANATOBENZOTRIFLUORIDES | 39 | 2285 |
| 3-Isocyanatomethyl-3,5,5-tri-methylcyclohexyl isocyanate | 39 | 2290 |
| Isododecane | 15 | 2286 |
| ISOHEPTENES | 14 | 2287 |
| ISOHEXENES | 14 | 2288 |
| ISO-NONANOYL PEROXIDE | 33 | 2128* |
| Isooctane | 14 | 1262 |
| ISOOCTENES | 14 | 1216 |
| Isopentane | 14 | 1265 |
| ISOPENTENES | 14 | 2371 |
| Isopentylamine | 18 | 1106 |
| Isopentyl nitrite | 16 | 1113 |
| ISOPHORONEDIAMINE | 36 | 2289 |
| ISOPHORONE DIISOCYANATE | 39 | 2290 |
| ISOPRENE, STABILIZED | 18P | 1218 |
| ISOPROPANOL (ISOPROPYL ALCOHOL) | 16 | 1219 |
| ISOPROPENYL ACETATE | 18P | 2403 |
| ISOPROPENYLBENZENE | 15 | 2303 |
| ISOPROPYL ACETATE | 18 | 1220 |
| ISOPROPYL ACID PHOSPHATE | 36 | 1793 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| ISOPROPYL ALCOHOL | 16 | 1219 |
| ISOPROPYLAMINE | 18 | 1221 |
| ISOPROPYLBENZENE | 19 | 1918 |
| ISOPROPYL BUTYRATE | 19 | 2405 |
| Isopropyl chloride | 18 | 2356 |
| ISOPROPYL CHLOROACETATE | 17 | 2947 |
| ISOPROPYL CHLOROFORMATE | 38 | 2407 |
| ISOPROPYL 2-CHLOROPROPIONATE | 19 | 2934 |
| Isopropyl-alpha-chloropropionate | 19 | 2934 |
| Isopropyl ether | 14 | 1159 |
| Isopropylethylene | 14 | 2561 |
| Isopropyl formate | 18 | 1281 |
| ISOPROPYL FORMATE | 14 | 2408* |
| ISOPROPYL ISOBUTYRATE | 18 | 2406 |
| ISOPROPYL ISOCYANATE | 38 | 2483 |
| Isopropyl mercaptan | 16 | 2402 |
| ISOPROPYL MERCAPTAN | 16 | 2703* |
| ISOPROPYL NITRATE | 16D | 1222 |
| ISOPROPYL PROPIONATE | 18 | 2409 |
| Isopropyltoluene | 19 | 2046 |
| Isopropyltoluol | 19 | 2046 |
| ISOSORBIDE DINITRATE MIXTURE with not less than 60% lactose, mannose, starch or calcium hydrogen phosphate | 52 | 2907 |
| ISOSORBIDE-5-MONONITRATE | 20 | 3251 |
| Isovaleraldehyde | 18 | 2058 |
| JET PERFORATING GUNS, CHARGED, oil well, without detonator | 02 | 0124 |
| JET PERFORATING GUNS, CHARGED, oil well, without detonator | 03 | 0494 |
| Jet tappers, without detonator | 02 | 0059 |
| KEROSENE | 15 | 1223 |
| KETONES, LIQUID, N.O.S. | 14 | 1224 |
| KRYPTON, COMPRESSED | 08 | 1056 |
| KRYPTON, REFRIGERATED LIQUID | 08 | 1970 |
| L (Lewisite) | 36 | 2810 |
| LACQUER | 14 | 1263 |
| Lacquer base or lacquer chips, nitrocellulose, dry | 20 | 1263 |
| Lacquer base or lacquer chips, plastic, wet with alcohol or solvent | 14 | 1263 |
| Lacquer base or lacquer chips, plastic, wet with alcohol or solvent | 52 | 2059 |
| Lacquer base or lacquer chips, plastic, wet with alcohol or solvent | 52 | 2555 |
| Lacquer base or lacquer chips, plastic, wet with alcohol or solvent | 52 | 2556 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| LEAD ACETATE | 34 | 1616 |
| Lead (II) acetate | 34 | 1616 |
| LEAD ALKYLS, N.O.S. | 16D | 1649 |
| LEAD ARSENATES | 34 | 1617 |
| LEAD ARSENITES | 34 | 1618 |
| LEAD AZIDE, WETTED with not less than 20% water, or mixture of alcohol and water, by mass | 02 | 0129 |
| Lead chloride, solid | 34 | 2291 |
| LEAD COMPOUND, SOLUBLE, N.O.S. | 34 | 2291 |
| LEAD CYANIDE | 34 | 1620 |
| Lead (II) cyanide | 34 | 1620 |
| LEAD DIOXIDE | 31 | 1872 |
| LEAD NITRATE | 31 | 1469 |
| Lead (II) nitrate | 31 | 1469 |
| Lead (II) perchlorate | 31 | 1470 |
| Lead (II) perchlorate | 31 | 3408 |
| LEAD PERCHLORATE, SOLID | 31 | 1470 |
| LEAD PERCHLORATE SOLUTION | 31 | 3408 |
| Lead peroxide | 31 | 1872 |
| LEAD PHOSPHITE, DIBASIC | 20 | 2989 |
| LEAD STYPHNATE (LEAD TRINITRORESORCINATE), WETTED with not less than 20% water, or mixture of alcohol and water, by mass | 02 | 0130 |
| LEAD SULPHATE with more than 3% free acid | 37 | 1794 |
| LEAD TETRAETHYL or LEAD TETRAMETHYL | 16D | 1649 |
| Lead tetraethyl | 16D | 1649 |
| Lead tetramethyl | 16D | 1649 |
| LEAD TRINITRORESORCINATE, WETTED | 02 | 0130 |
| LIFE-SAVING APPLIANCES NOT SELF-INFLATING containing dangerous goods as equipment | 47 | 3072 |
| LIFE-SAVING APPLIANCES, SELF-INFLATING | 47 | 2990 |
| LIGHTERS | 14 | 1226* |
| LIGHTER REFILLS containing flammable gas | 04 | 1057 |
| LIGHTERS containing flammable gas | 04 | 1057 |
| LIGHTERS, FUSE | 03 | 0131 |
| Limonene, inactive | 14 | 2052 |
| LIQUEFIED GAS, N.O.S. | 06 | 3163 |
| LIQUEFIED GASES, non-flammable, charged with nitrogen, carbon dioxide or air | 08 | 1058 |
| LIQUEFIED GAS, FLAMMABLE, N.O.S. | 04 | 3161 |
| LIQUEFIED GAS, OXIDIZING, N.O.S. | 10 | 3157 |
| LIQUEFIED GAS, TOXIC, N.O.S. | 07 | 3162 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| LIQUEFIED GAS, TOXIC, CORROSIVE, N.O.S. | 07 | 3308 |
| LIQUEFIED GAS, TOXIC, FLAMMABLE, N.O.S. | 05 | 3160 |
| LIQUEFIED GAS, TOXIC, FLAMMABLE, CORROSIVE, N.O.S. | 05 | 3309 |
| LIQUEFIED GAS, TOXIC, OXIDIZING, N.O.S. | 12 | 3307 |
| LIQUEFIED GAS, TOXIC, OXIDIZING, CORROSIVE, N.O.S. | 12 | 3310 |
| Liquefied petroleum gas | 04 | 1075 |
| LITHIUM | 26 | 1415 |
| LITHIUM AMIDE | 27 | 1412* |
| LITHIUM ALKYLS, LIQUID | 25 | 2445* |
| Lithium alkyls, liquid | 26 | 3394 |
| Lithium alkyls, solid | 26 | 3393 |
| LITHIUM ALKYLS, SOLID | 25 | 3433* |
| LITHIUM ALUMINIUM HYDRIDE | 26 | 1410 |
| LITHIUM ALUMINIUM HYDRIDE, ETHEREAL | 26 | 1411 |
| Lithium alloy batteries | 26 | 3090 |
| Lithium alloy batteries | 26 | 3091 |
| LITHIUM ION BATTERIES | 26 | 3480 |
| LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT | 26 | 3481 |
| LITHUIM ION BATTERIES PACKED WITH EQUIPMENT | 26 | 3481 |
| Lithium ion polymer batteries | 26 | 3480 |
| Lithium ion polymer batteries | 26 | 3481 |
| LITHIUM METAL BATTERIES | 26 | 3090 |
| LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT | 26 | 3091 |
| LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT | 26 | 3091 |
| LITHIUM BOROHYDRIDE | 26 | 1413 |
| LITHIUM FERROSILICON | 27 | 2830 |
| LITHIUM HYDRIDE | 26 | 1414 |
| LITHIUM HYDRIDE, FUSED SOLID | 26 | 2805 |
| LITHIUM HYDROXIDE | 37 | 2680 |
| LITHIUM HYDROXIDE SOLUTION | 37 | 2679 |
| LITHIUM HYPOCHLORITE, DRY | 31 | 1471 |
| LITHIUM HYPOCHLORITE MIXTURE | 31 | 1471 |
| Lithium in cartouches | 26 | 1415 |
| LITHIUM NITRATE | 31 | 2722 |
| LITHIUM NITRIDE | 27 | 2806 |
| LITHIUM PEROXIDE | 31 | 1472 |
| Lithium silicide | 26 | 1417 |
| LITHIUM SILICON | 26 | 1417 |
| L,n,g, | 04 | 1972 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| LONDON PURPLE | 34 | 1621 |
| L.p.g. | 04 | 1075 |
| Lye | 37 | 1823 |
| Lythene | 14 | 1268 |
| MAGNESIUM in pellets, turnings or ribbons | 26 | 1869 |
| Magnesium alkyls | 26 | 3394 |
| MAGNESIUM ALKYLS | 25 | 3053* |
| MAGNESIUM ALLOYS with more than 50% magnesium in pellets, turnings or ribbons | 26 | 1869 |
| MAGNESIUM ALLOYS POWDER | 26 | 1418 |
| MAGNESIUM ALUMINIUM PHOSPHIDE | 27 | 1419 |
| MAGNESIUM ARSENATE | 34 | 1622 |
| Magnesium bisulphite solution | 37 | 2693 |
| MAGNESIUM BROMATE | 31 | 1473 |
| MAGNESIUM CHLORATE | 31 | 2723 |
| Magnesium chloride and chlorate mixture | 40 | 1459 |
| Magnesium chloride and chlorate mixture | 31 | 3407 |
| MAGNESIUM DIAMIDE | 25 | 2004 |
| MAGNESIUM DIPHENYL | 25 | 2005* |
| Magnesium diphenyl | 26 | 3393 |
| MAGNESIUM FLUOROSILICATE | 34 | 2853 |
| MAGNESIUM GRANULES, COATED, particle size not less than 149 microns | 26 | 2950 |
| MAGNESIUM HYDRIDE | 26 | 2010 |
| MAGNESIUM NITRATE | 31 | 1474 |
| MAGNESIUM PERCHLORATE | 31 | 1475 |
| MAGNESIUM PEROXIDE | 31 | 1476 |
| MAGNESIUM PHOSPHIDE | 27 | 2011 |
| MAGNESIUM POWDER | 26 | 1418 |
| Magnesium scrap | 26 | 1869 |
| MAGNESIUM SILICIDE | 26 | 2624 |
| Magnesium silicofluoride | 34 | 2853 |
| Magnetized material | 47 | 2807 |
| MALEIC ANHYDRIDE | 36 | 2215 |
| MALEIC ANHYDRIDE, MOLTEN | 36 | 2215 |
| Malonic dinitrile | 36 | 2647 |
| Malonodinitrile | 36 | 2647 |
| MALONONITRILE | 36 | 2647 |
| MANEB | 25 | 2210 |
| MANEB PREPARATION with not less than 60% maneb | 25 | 2210 |
| MANEB PREPARATION, STABILIZED against self-heating | 25 | 2968 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| MANEB, STABILIZED against self-heating | 25 | 2968 |
| Manganese ethylene-di-dithiocarbamate | 25 | 2210 |
| Manganese ethylene-1,2-dithiocarbamate | 25 | 2210 |
| MANGANESE NITRATE | 31 | 2724 |
| Manganese (II) nitrate | 31 | 2724 |
| MANGANESE RESINATE | 20 | 1330 |
| Manganous nitrate | 37 | 2724 |
| MANNITOL HEXANITRATE (NITROMANNITE), WETTED with not less than 40% water, or mixture of alcohol and water, by mass | 02 | 0133 |
| MATCHES, FUSEE | 20 | 2254 |
| MATCHES, SAFETY (book, card or strike on box) | 20 | 1944 |
| MATCHES, 'STRIKE ANYWHERE' | 20 | 1331 |
| MATCHES, WAX 'VESTA' | 20 | 1945 |
| MD | 35 | 1556 |
| MEDICAL WASTE, N.O.S. | 41 | 3291 |
| MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S. | 16 | 3248 |
| MEDICINE, LIQUID, TOXIC, N.O.S. | 34 | 1851 |
| MEDICINE, SOLID, TOXIC, N.O.S. | 34 | 3249 |
| p-Mentha-1,8-diene | 14 | 2052 |
| p-MENTHANE HYDROPEROXIDE | 32 | 2125* |
| MERCAPTAN MIXTURE, LIQUID, FLAMMABLE, N.O.S. | 16 | 3336 |
| MERCAPTAN MIXTURE, LIQUID, FLAMMABLE, TOXIC, N.O.S. | 16 | 1228 |
| MERCAPTAN MIXTURE, LIQUID, TOXIC, FLAMMABLE, N.O.S. | 16 | 3071 |
| MERCAPTANS, LIQUID, FLAMMABLE, N.O.S. | 16 | 3336 |
| MERCAPTANS, LIQUID, FLAMMABLE, TOXIC, N.O.S. | 16 | 1228 |
| MERCAPTANS, LIQUID, TOXIC, FLAMMABLE, N.O.S. | 16 | 3071 |
| 2-Mercaptoethanol | 36 | 2966 |
| 2-Mercaptopropionic acid | 36 | 2936 |
| 5-MERCAPTOTETRAZOL-1-ACETIC ACID | 03 | 0448 |
| MERCURIC ARSENATE | 34 | 1623 |
| MERCURIC CHLORIDE | 37 | 1624 |
| MERCURIC NITRATE | 34 | 1625 |
| MERCURIC POTASSIUM CYANIDE | 40 | 1626 |
| Mercuric sulphate | 34 | 1645 |
| Mercurol | 34 | 1639 |
| Mercurous bisulphate | 34 | 1645 |
| MERCUROUS NITRATE | 34 | 1627 |
| MERCUROUS SULPHATE | 34 | 1628* |
| Mercurous sulphate | 34 | 1645 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| MERCURY | 30 | 2809 |
| MERCURY ACETATE | 34 | 1629 |
| MERCURY AMMONIUM CHLORIDE | 34 | 1630 |
| MERCURY BASED PESTICIDE, LIQUID, FLAMMABLE, TOXIC, flashpoint less than 23°C | 16 | 2778 |
| MERCURY BASED PESTICIDE, LIQUID, TOXIC | 34 | 3012 |
| MERCURY BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flashpoint not less than 23°C | 17 | 3011 |
| MERCURY BASED PESTICIDE, SOLID, TOXIC | 34 | 2777 |
| MERCURY BENZOATE | 37 | 1631 |
| Mercury bichloride | 37 | 1624 |
| MERCURY BISULPHATE | 36 | 1633* |
| MERCURY BROMIDES | 37 | 1634 |
| MERCURY COMPOUND, LIQUID, N.O.S. | 34 | 2024 |
| MERCURY COMPOUND, SOLID, N.O.S. | 34 | 2025 |
| MERCURY CYANIDE | 37 | 1636 |
| MERCURY FULMINATE, WETTED with not less than 20% water, or mixture of alcohol and water, by mass | 02 | 0135 |
| MERCURY GLUCONATE | 34 | 1637 |
| MERCURY IODIDE | 34 | 1638 |
| MERCURY NUCLEATE | 34 | 1639 |
| MERCURY OLEATE | 34 | 1640 |
| MERCURY OXIDE | 34 | 1641 |
| MERCURY OXYCYANIDE, DESENSITIZED | 34 | 1642 |
| MERCURY POTASSIUM IODIDE | 34 | 1643 |
| MERCURY SALICYLATE | 34 | 1644 |
| MERCURY SULPHATE | 34 | 1645 |
| MERCURY THIOCYANATE | 34 | 1646 |
| Mesitylene | 17 | 2325 |
| MESITYL OXIDE | 19 | 1229 |
| METAL ALKYL HALIDES, WATER-REACTIVE, N.O.S. or METAL ARYL HALIDES, WATER-REACTIVE, N.O.S. | 26 | 3049* |
| METAL ALKYL HYDRIDES, WATER-REACTIVE, N.O.S. or METAL ARYL HYDRIDES, WATER-REACTIVE, N.O.S. | 26 | 3050* |
| METAL ALKYLS, WATER-REACTIVE, N.O.S. or METAL ARYLS, WATER-REACTIVE, N.O.S. | 25 | 2003* |
| METAL CARBONYLS, LIQUID, N.O.S. | 36 | 3281 |
| METAL CARBONYLS SOLID, N.O.S. | 35 | 3466 |
| METAL CATALYST, DRY | 29D | 2881 |
| METAL CATALYST, WETTED with a visible excess of liquid | 29D | 1378 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| METALDEHYDE | 20 | 1332 |
| METAL HYDRIDES, FLAMMABLE, N.O.S. | 29 | 3182 |
| METAL HYDRIDES, WATER-REACTIVE, N.O.S. | 26 | 1409 |
| METALLIC SUBSTANCE, WATER-REACTIVE, N.O.S. | 26 | 3208 |
| METALLIC SUBSTANCE, WATER-REACTIVE, SELF-HEATING, N.O.S. | 26 | 3209 |
| METAL POWDER, FLAMMABLE, N.O.S. | 29 | 3089 |
| METAL POWDER, SELF-HEATING, N.O.S. | 23 | 3189 |
| METAL SALTS OF ORGANIC COMPOUNDS, FLAMMABLE, N.O.S. | 20 | 3181 |
| METHACRYLALDEHYDE, STABILIZED | 19P | 2396 |
| METHACRYLIC ACID, STABILIZED | 36P | 2531 |
| METHACRYLONITRILE, STABILIZED | 16P | 3079 |
| METHALLYL ALCOHOL | 17 | 2614 |
| Methanal | 19 | 1198 |
| Methanal | 19 | 2209 |
| Methane and hydrogen mixture | 04 | 2034 |
| METHANE, COMPRESSED | 04 | 1971 |
| METHANE, REFRIGERATED LIQUID | 04 | 1972 |
| METHANESULPHONYL CHLORIDE | 39 | 3246 |
| METHANOL | 16 | 1230 |
| 2-Methoxyethyl acetate | 19 | 1189 |
| METHOXYMETHYL ISOCYANATE | 38 | 2605 |
| 4-METHOXY-4-METHYLPENTAN-2-ONE | 15 | 2293 |
| 1-Methoxy-2-nitrobenzene | 35 | 2730 |
| 1-Methoxy-2-nitrobenzene | 35 | 3458 |
| 1-Methoxy-3-nitrobenzene | 35 | 2730 |
| 1-Methoxy-3-nitrobenzene | 35 | 3458 |
| 1-Methoxy-4-nitrobenzene | 35 | 2730 |
| 1-Methoxy-4-nitrobenzene | 35 | 3458 |
| 1-METHOXY-2-PROPANOL | 16 | 3092 |
| METHYL ACETATE | 18 | 1231 |
| METHYL ACETONE | 14 | 1232* |
| METHYLACETYLENE AND PROPADIENE MIXTURE, STABILIZED | 04P | 1060 |
| Beta-Methyl acrolein | 18P | 1143 |
| METHYL ACRYLATE, STABILIZED | 18P | 1919 |
| METHYLAL | 14 | 1234 |
| Methyl alcohol | 16 | 1230 |
| Methyl allyl alcohol | 17 | 2614 |
| METHYLALLYL CHLORIDE | 16P | 2554 |
| METHYL ALUMINIUM SESQUIBROMIDE | 25 | 1926* |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| METHYL ALUMINIUM SESQUICHLORIDE | 25 | 1927* |
| METHYLAMINE, ANHYDROUS | 05 | 1061 |
| METHYLAMINE, AQUEOUS SOLUTION | 18 | 1235 |
| METHYLAMYL ACETATE | 19 | 1233 |
| Methyl amyl alcohol | 17 | 2053 |
| Methyl amyl ketone | 15 | 1110 |
| N-METHYLANILINE | 36 | 2294 |
| Methylated spirit | 16 | 1986 |
| Methylated spirit | 14 | 1987 |
| METHYL BENZOATE | 36 | 2938* |
| alpha-METHYLBENZYL ALCOHOL, LIQUID | 36 | 2937 |
| alpha-METHYLBENZYL ALCOHOL, SOLID | 36 | 3438 |
| Methyl bromide and chloropicrin mixture, | 05 | 1582 |
| METHYL BROMIDE AND ETHYLENE DIBROMIDE MIXTURE, LIQUID | 34 | 1647 |
| METHYL BROMIDE with not more than 2% chloropicrin | 07 | 1062 |
| Methyl bromide and chloropicrin mixture | 07 | 1581 |
| METHYL BROMOACETATE | 39 | 2643 |
| 2-METHYLBUTANAL | 15 | 3371 |
| 3-METHYLBUTAN-2-ONE | 14 | 2397 |
| 2-METHYL-1-BUTENE | 14 | 2459 |
| 2-METHYL-2-BUTENE | 14 | 2460 |
| 3-METHYL-1-BUTENE | 14 | 2561 |
| N-METHYLBUTYLAMINE | 18 | 2945 |
| METHYL tert-BUTYL ETHER | 14 | 2398 |
| METHYL BUTYRATE | 18 | 1237 |
| METHYL CHLORIDE (REFRIGERANT GAS R 40) | 05 | 1063 |
| Methyl chloride and chloropicrin mixture | 05 | 1582 |
| METHYL CHLORIDE AND METHYLENE CHLORIDE MIXTURE | 05 | 1912 |
| METHYL CHLOROACETATE | 38 | 2295 |
| Methyl chlorocarbonate | 38 | 1238 |
| Methyl chloroform | 34 | 2831 |
| METHYL CHLOROFORMATE | 38 | 1238 |
| METHYL CHLOROMETHYL ETHER | 18 | 1239 |
| METHYL 2-CHLOROPROPIONATE | 19 | 2933 |
| Methyl alpha-chloropropionate | 19 | 2933 |
| METHYLCHLOROSILANE | 05 | 2534 |
| Methyl cyanide | 17 | 1648 |
| METHYLCYCLOHEXANE | 14 | 2296 |
| METHYLCYCLOHEXANOLS, flammable | 17 | 2617 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| METHYLCYCLOHEXANONE | 15 | 2297 |
| METHYLCYCLOHEXANONE PEROXIDES | 33 | 3046* |
| METHYLCYCLOPENTANE | 14 | 2298 |
| METHYL DICHLOROACETATE | 38 | 2299 |
| Methyldichloroarsine | 35 | 1556 |
| METHYLDICHLOROSILANE | 25 | 1242 |
| Methylene bromide | 37 | 2664 |
| Methylene chloride | 37 | 1593 |
| Methylene chloride and methyl chloride mixture | 05 | 1912 |
| Methylene cyanide | 36 | 2647 |
| p,p'-Methylene dianiline | 36 | 2651 |
| Methylene dibromide | 37 | 2664 |
| 2,2'-Methylene-di-(3,4,6-trichlorophenol) | 34 | 2875 |
| Methyl ethyl ether | 04 | 1039 |
| METHYL ETHYL KETONE | 14 | 1193 |
| METHYL ETHYL KETONE PEROXIDE | 32 | 2127* |
| METHYL ETHYL KETONE PEROXIDES | 32 | 2550* |
| METHYL ETHYL KETONE PEROXIDES | 32 | 3068* |
| METHYL ETHYL KETONE PEROXIDE(S) | 32 | 2563* |
| 2-METHYL-5-ETHYLPYRIDINE | 36 | 2300 |
| METHYL FLUORIDE (REFRIGERANT GAS R 41) | 04 | 2454 |
| METHYL FORMATE | 18 | 1243 |
| 2-METHYLFURAN | 14 | 2301 |
| Methyl glycol | 15 | 1188 |
| Methyl glycol acetate | 19 | 1189 |
| 2-METHYL-2-HEPTANETHIOL | 17 | 3023 |
| 5-METHYLHEXAN-2-ONE | 15 | 2302 |
| METHYLHYDRAZINE | 25D | 1244 |
| METHYL IODIDE | 34 | 2644 |
| METHYL ISOBUTYL CARBINOL | 17 | 2053 |
| METHYL ISOBUTYL KETONE | 14 | 1245 |
| METHYL ISOBUTYL KETONE PEROXIDE | 32 | 2126* |
| METHYL ISOCYANATE | 38 | 2480 |
| METHYL ISOPROPENYL KETONE, STABILIZED | 14P | 1246 |
| METHYL ISOTHIOCYANATE | 17 | 2477 |
| METHYL ISOVALERATE | 18 | 2400 |
| METHYL MAGNESIUM BROMIDE IN ETHYL ETHER | 25 | 1928 |
| METHYL MERCAPTAN | 05 | 1064 |
| Methyl mercaptopropionaldehyde | 19 | 2785 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| METHYL METHACRYLATE MONOMER, STABILIZED | 18P | 1247 |
| 4-METHYLMORPHOLINE (N-METHYLMORPHOLINE) | 19 | 2535 |
| N-METHYLMORPHOLINE | 19 | 2535 |
| METHYL NITRITE | 05 | 2455 |
| METHYL ORTHOSILICATE | 38 | 2606 |
| METHYLPENTADIENE | 14 | 2461 |
| Methylpentanes | 14 | 1208 |
| METHYLPENTANES | 14 | 2462* |
| 2-METHYLPENTAN-2-OL | 17 | 2560 |
| 4-Methylpentan-2-ol | 17 | 2053 |
| 3-Methyl-2-penten-4ynol | 19P | 2705 |
| METHYLPHENYLDICHLOROSILANE | 25 | 2437 |
| 2-Methyl-2-phenylpropane | 19 | 2046 |
| 1-METHYLPIPERIDINE | 18 | 2399 |
| METHYL PROPIONATE | 18 | 1248 |
| Methylpropylbenzene | 19 | 2046 |
| METHYL PROPYL ETHER | 14 | 2612 |
| METHYL PROPYL KETONE | 14 | 1249 |
| Methyl pyridines | 18 | 2313 |
| Methylstyrene, inhibited | 17P | 2618 |
| alpha-Methylstyrene | 15 | 2303 |
| Methyl sulphate | 39 | 1595 |
| Methyl sulphide | 18 | 1164 |
| METHYLTETRAHYDROFURAN | 14 | 2536 |
| METHYL TRICHLOROACETATE | 38 | 2533 |
| METHYLTRICHLOROSILANE | 25 | 1250 |
| alpha-METHYL-VALERALDEHYDE | 18 | 2367 |
| Methyl vinyl ketone, inhibited | 17P | 2618 |
| METHYL VINYL KETONE, STABILIZED | 18P | 1251 |
| M.i.b.c. | 17 | 1300 |
| MINERAL (TURPENTINE SUBSTITUTE) | 14 | 1300 |
| MINES with bursting charge | 02 | 0136 |
| MINES with bursting charge | 02 | 0137 |
| MINES with bursting charge | 02 | 0138 |
| MINES with bursting charge | 02 | 0294 |
| Mirbane oil | 35 | 1662 |
| Missiles, guided | 02 | 0181 |
| Missiles, guided | 02 | 0180 |
| Missiles, guided | 02 | 0397 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Missiles, guided | 02 | 0436 |
| Missiles, guided | 02 | 0182 |
| Missiles, guided | 02 | 0295 |
| Missiles, guided | 02 | 0398 |
| Missiles, guided | 02 | 0183 |
| Missiles, guided | 02 | 0437 |
| Missiles, guided | 03 | 0438 |
| MOLYBDENUM PENTACHLORIDE | 39 | 2508 |
| Monochloroacetic acid | 36 | 1750 |
| Monochloroacetic acid | 36 | 1751 |
| Monochlorobenzene | 18 | 1134 |
| Monochlorodifluoromethane | 06 | 1018 |
| Monochlorodifluoromethane and monochloropentafluoroethane mixture | 06 | 1973 |
| Monochlorodifluoromono-bromomethane | 06 | 1974 |
| Monochloropentafluoroethane and monochlorodifluoromethane mixture | 06 | 1073 |
| Monoethylamine | 05 | 1036 |
| MONONITROTOLUIDINES | 36 | 2660 |
| Monopropylamine | 18 | 1277 |
| MORPHOLINE | 19 | 2054 |
| MOTOR FUEL ANTI-KNOCK MIXTURE | 16D | 1649 |
| MOTOR FUEL ANTI-KNOCK MIXTURE, FLAMMABLE | 16D | 3483† |
| MOTOR SPIRIT | 14 | 1203 |
| MOTOR SPIRIT AND ETHANOL MIXTURE | 14 | 3475 |
| Muriatic acid | 37 | 1789 |
| MUSK XYLENE | 52 | 2956 |
| Mustard | 36 | 2810 |
| Mustard lewisite | 36 | 2810 |
| Mysorite | 47 | 2212 |
| NAPHTHA | 14 | 1255* |
| NAPHTHA | 14 | 1256* |
| Naphtha | 14 | 1268 |
| NAPHTHA | 14 | 2553* |
| NAPHTHALENE, CRUDE or NAPHTHALENE, REFINED | 20 | 1334 |
| NAPHTHALENE, MOLTEN | 20 | 2304 |
| Naphtha, petroleum | 14 | 1268 |
| NAPHTHALENE, REFINED | 20 | 1334 |
| Naphtha, solvent | 14 | 1268 |
| alpha-NAPHTHYLAMINE | 36 | 2077 |
| beta-NAPHTHYLAMINE, SOLID | 36 | 1650 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| beta-NAPHTYLAMINE SOLUTION | 36 | 3411 |
| NAPHTHYLTHIOUREA | 36 | 1651 |
| 1-Naphthylthiurea | 36 | 1651 |
| NAPHTHYLUREA | 36 | 1652 |
| NATURAL GAS, COMPRESSED with high methane content | 04 | 1971 |
| Natural gasoline | 14 | 1203 |
| NATURAL GASOLINE | 14 | 1257* |
| NATURAL GAS, REFRIGERATED LIQUID with high methane content | 04 | 1971 |
| Neohexane | 14 | 1208 |
| NEON, COMPRESSED | 08 | 1065 |
| NEON, REFRIGERATED LIQUID | 08 | 1913 |
| Neothyl | 14 | 2612 |
| NICKEL CARBONYL | 16D | 1259 |
| NICKEL CYANIDE | 34 | 1653 |
| Nickel (II) cyanide | 24 | 1653 |
| NICKEL NITRATE | 31 | 2725 |
| Nickel (II) nitrate | 31 | 2725 |
| NICKEL NITRITE | 31 | 2726 |
| Nickel (II) nitrite | 31 | 2726 |
| Nickelous nitrate | 31 | 2725 |
| Nickelous nitrite | 31 | 2726 |
| Nickel tetracarbonyl | 16D | 1259 |
| NICOTINE | 34 | 1654 |
| NICOTINE COMPOUND, LIQUID, N.O.S. | 34 | 3144 |
| NICOTINE COMPOUND, SOLID, N.O.S. | 34 | 1655 |
| NICOTINE HYDROCHLORIDE, LIQUID | 34 | 1656 |
| NICOTINE HYDROCHLORIDE, SOLID | 34 | 3444 |
| NICOTINE HYDROCHLORIDE SOLUTION | 34 | 1656 |
| NICOTINE PREPARATION, LIQUID, N.O.S. | 34 | 3144 |
| NICOTINE PREPARATION, SOLID, N.O.S. | 34 | 1655 |
| NICOTINE SALICYLATE | 34 | 1657 |
| NICOTINE SULPHATE, SOLID | 34 | 3445 |
| NICOTINE SULPHATE SOLUTION | 34 | 1658 |
| NICOTINE TARTRATE | 34 | 1659 |
| NITRATES, INORGANIC, N.O.S. | 31 | 1477 |
| NITRATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. | 31 | 3218 |
| NITRATING ACID MIXTURE, with more than 50% nitric acid | 40 | 1796 |
| NITRATING ACID MIXTURE, with less than 50% nitric acid | 40 | 1796 |
| NITRATING ACID MIXTURE, SPENT, with more than 50% nitric acid | 40 | 1826 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| NITRIC ACID, other than red fuming | 40 | 2031 |
| NITRIC ACID, RED FUMING | 40 | 2032 |
| NITRIC OXIDE AND DINITROGEN TETROXIDE MIXTURE | 12 | 1975 |
| NITRIC OXIDE AND NITROGEN DIOXIDE MIXTURE | 12 | 1975 |
| NITRIC OXIDE, COMPRESSED | 12 | 1660 |
| NITRILES, FLAMMABLE, TOXIC, N.O.S. | 16 | 3273 |
| NITRILES, TOXIC, FLAMMABLE, N.O.S. | 16 | 3275 |
| NITRILES, TOXIC, LIQUID, N.O.S. | 35 | 3276 |
| NITRILES, TOXIC, SOLID, N.O.S. | 35 | 3439 |
| NITRITES, INORGANIC, N.O.S. | 31 | 2627 |
| NITRITES, INORGANIC, AQUEOUS SOLUTION, N.O.S. | 31 | 3219 |
| NITROANILINES (o-, m-, p-) | 36 | 1661 |
| NITROANISOLES, LIQUID | 35 | 2730 |
| NITROANISOLES, SOLID | 35 | 3458 |
| NITROBENZENE | 35 | 1662 |
| Nitrobenzene bromide | 35 | 2732 |
| NITROBENZENESULPHONIC ACID | 36D | 2305 |
| Nitrobenzol | 35 | 1662 |
| 5-NITROBENZOTRIAZOL | 02 | 0385 |
| NITROBENZOTRIFLUORIDES | 35 | 2306 |
| NITROBENZOTRIFLUOIDES, SOLID | 35 | 3431 |
| NITROBROMOBENZENE, LIQUID | 35 | 2732 |
| NITROBROMOBENZENES, SOLID | 35 | 3459 |
| NITROCELLULOSE, dry or wetted with less than 25% water (or alcohol), by mass | 02 | 0340 |
| NITROCELLULOSE, unmodified or plasticized with less than 18% plasticizing substance, by mass | 02 | 0341 |
| NITROCELLULOSE MEMBRANE FILTERS, with not more than 12.6% nitrogen, by dry mass | 52 | 3270 |
| NITROCELLULOSE, PLASTICIZED with not less than 18% plasticizing substance, by mass | 02 | 0343 |
| NITROCELLULOSE SOLUTION, FLAMMABLE | 15D | 2060* |
| NITROCELLULOSE SOLUTION, FLAMMABLE with not more than 12.6% nitrogen, by dry mass, and not more than 55% nitrocellulose | 52 | 2059 |
| NITROCELLULOSE, WETTED with not less than 25% alcohol, by mass | 02 | 0342 |
| NITROCELLULOSE WITH ALCOHOL (not less than 25% alcohol, by mass, and not more than 12.6% nitrogen, by dry mass) | 52 | 2556 |
| NITROCELLULOSE, with not more than 12.6% nitrogen, by dry mass, MIXTURE WITH PLASTICIZER, WITH PIGMENT | 52 | 2557 |
| NITROCELLULOSE, with not more than 12.6% nitrogen, by dry mass, MIXTURE WITH PLASTICIZER, WITHOUT PIGMENT | 52 | 2557 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| NITROCELLULOSE, with not more than 12.6% nitrogen, by dry mass, MIXTURE WITHOUT PLASTICIZER, WITH PIGMENT | 52 | 2557 |
| NITROCELLULOSE, with not more than 12.6% nitrogen, by dry mass, MIXTURE WITHOUT PLASTICIZER, WITHOUT PIGMENT | 52 | 2557 |
| NITROCELLULOSE WITH WATER (not less than 25% water, by mass) | 52 | 2555 |
| Nitrochlorobenzenes | 35D | 1578 |
| 3-NITRO-4-CHLOROBENZOTRIFLUORIDE | 35 | 2307 |
| NITROCRESOLS, LIQUID | 36 | 3434 |
| NITROCRESOLS, SOLID | 36 | 2446 |
| NITROETHANE | 17D | 2842 |
| NITROGEN, COMPRESSED | 08 | 1066 |
| NITROGEN DIOXIDE | 12 | 1067 |
| NITROGEN, REFRIGERATED LIQUID | 08 | 1977 |
| NITROGEN TRIFLUORIDE | 12 | 2451 |
| NITROGEN TRIOXIDE | 12 | 2421 |
| NITROGLYCERIN, DESENSITIZED with not less than 40% non-volatile water-insoluble phlegmatizer, by mass | 02 | 0143 |
| NITROGLYCERIN MIXTURE, DESENSITIZED, LIQUID, N.O.S. with not more than 30% nitroglycerin, by mass | 52 | 3357 |
| NITROGLYCERIN MIXTURE, DESENSITIZED, LIQUID, FLAMMABLE, N.O.S. with not more than 30% but not more than 20% nitroglycerin, by mass | 52 | 3343 |
| NITROGLYCERIN MIXTURE, DESENSITIZED, SOLID, N.O.S. with more than 2% but not more than 10% nitroglycerin, by mass | 52 | 3319 |
| NITROGLYCERIN SOLUTION IN ALCOHOL with more than 1% but not more than 10% nitroglycerin | 02 | 0144 |
| NITROGLYCERIN, SOLUTION IN ALCOHOL with more than 1% but not more than 5% nitroglycerin | 52 | 3064 |
| NITROGLYCERIN SOLUTION IN ALCOHOL with not more than 1% nitroglycerin | 52 | 1204 |
| NITROGUANIDINE (PICRITE), dry or wetted with less than 20% water, by mass | 02 | 0282 |
| NITROGUANIDINE (PICRITE), WETTED with not less than 20% water, by mass | 52 | 1336 |
| NITROHYDROCHLORIC ACID | 40 | 1798 |
| NITROMANNITE, WETTED | 02 | 0133 |
| NITROMETHANE | 17D | 1261 |
| Nitromuriatic acid | 40 | 1798 |
| NITRONAPHTHALENE | 20 | 2538 |
| NITROPHENOLS (o-, m-, p-) | 36 | 1663 |
| 4-NITROPHENYLHYDRAZINE, with not less than 30% water, by mass | 52 | 3376 |
| NITROPROPANES | 17D | 2608 |
| p-NITROSODIMETHYLANILINE | 23 | 1369 |
| NITROSTARCH, dry or wetted with less than 20% water, by mass | 02 | 0146 |
| NITROSTARCH, WETTED with not less than 20% water, by mass | 52 | 1337 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| NITROSYL CHLORIDE | 07 | 1069 |
| NITROSYLSULPHURIC ACID, LIQUID | 40 | 2308 |
| NITROSYLSULPHURIC ACID, SOLID | 40 | 3456 |
| NITROTOLUENES, LIQUID | 35 | 1664 |
| NITROTOLUENES, SOLID | 35D | 3446 |
| NITROTOLUIDINES | 36 | 2660 |
| NITROTRIAZOLONE | 02 | 0490 |
| NITRO UREA | 02 | 0147 |
| NITROUS OXIDE | 10 | 1070 |
| NITROUS OXIDE, REFRIGERATED LIQUID | 10 | 2201 |
| NITROXYLENES, LIQUID | 35 | 1665 |
| NITROXYLENES, SOLID | 35 | 3447 |
| Non-activated carbon | 20 | 1361 |
| Non-activated charcoal | 20 | 1361 |
| NONANES | 15 | 1920 |
| NONYLTRICHLOROSILANE | 39 | 1799 |
| 2,5-NORBORNADIENE, STABILIZED | 14P | 2251 |
| Normal propyl alcohol | 16 | 1274 |
| NTO | 02 | 0490 |
| OCTADECYLTRICHLOROSILANE | 39 | 1800 |
| OCTADIENE | 14P | 2309 |
| OCTAFLUOROBUT-2-ENE (REFRIGERANT GAS R 1318) | 06 | 2422 |
| OCTAFLUOROCYCLOBUTANE (REFRIGERANT GAS RC 318) | 06 | 1976 |
| OCTAFLUOROPROPANE (REFRIGERANT GAS R 218) | 06 | 2424 |
| OCTANES | 14 | 1262 |
| OCTOGEN | 02 | 0226 |
| OCTOGEN | 02 | 0391 |
| OCTOGEN | 02 | 0484 |
| OCTOL, dry or wetted with less than 15% water, by mass | 02 | 0266 |
| OCTOLITE, dry or wetted with less than 15% water, by mass | 02 | 0266 |
| OCTONAL | 02 | 0496 |
| OCTYL ALDEHYDES | 19 | 1191 |
| tert-Octyl mercaptan | 17 | 3023 |
| OCTYLTRICHLOROSILANE | 39 | 1801 |
| Oenanthol | 19 | 3056 |
| OIL GAS, COMPRESSED | 05 | 1071 |
| Oleum | 40 | 1831 |
| ORGANIC PEROXIDES | 32 | 2899* |
| ORGANIC PEROXIDES, MIXTURES | 32 | 2756* |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| ORGANIC PEROXIDES, SAMPLES, N.O.S. | 32 | 2255* |
| ORGANIC PEROXIDE TYPE B, LIQUID | 32 | 3101 |
| ORGANIC PEROXIDE TYPE B, LIQUID, TEMPERATURE CONTROLLED | 33 | 3111 |
| ORGANIC PEROXIDE TYPE B, SOLID | 32 | 3102 |
| ORGANIC PEROXIDE TYPE B, SOLID, TEMPERATURE CONTROLLED | 33 | 3112 |
| ORGANIC PEROXIDE TYPE C, LIQUID | 32 | 3103 |
| ORGANIC PEROXIDE TYPE C, LIQUID, TEMPERATURE CONTROLLED | 33 | 3113 |
| ORGANIC PEROXIDE TYPE C, SOLID | 32 | 3104 |
| ORGANIC PEROXIDE TYPE C, SOLID, TEMPERATURE CONTROLLED | 33 | 3114 |
| ORGANIC PEROXIDE TYPE D, LIQUID | 32 | 3105 |
| ORGANIC PEROXIDE TYPE D, LIQUID, TEMPERATURE CONTROLLED | 33 | 3115 |
| ORGANIC PEROXIDE TYPE D, SOLID | 32 | 3106 |
| ORGANIC PEROXIDE TYPE D, SOLID, TEMPERATURE CONTROLLED | 33 | 3116 |
| ORGANIC PEROXIDE TYPE E, LIQUID | 32 | 3107 |
| ORGANIC PEROXIDE TYPE E, LIQUID, TEMPERATURE CONTROLLED | 33 | 3117 |
| ORGANIC PEROXIDE TYPE E, SOLID | 32 | 3108 |
| ORGANIC PEROXIDE TYPE E, SOLID, TEMPERATURE CONTROLLED | 33 | 3118 |
| ORGANIC PEROXIDE TYPE F, LIQUID | 32 | 3109 |
| ORGANIC PEROXIDE TYPE F, LIQUID, TEMPERATURE CONTROLLED | 33 | 3119 |
| ORGANIC PEROXIDE TYPE F, SOLID | 32 | 3110 |
| ORGANIC PEROXIDE TYPE F, SOLID, TEMPERATURE CONTROLLED | 33 | 3120 |
| ORGANIC PIGMENTS, SELF-HEATING | 23 | 3313 |
| ORGANOARSENIC COMPOUND, LIQUID, N.O.S. | 36 | 3280 |
| ORGANOARSENIC COMPOUND, SOLID, N.O.S. | 35 | 3465 |
| ORGANOCHLORINE PESTICIDE, LIQUID, FLAMMABLE, TOXIC, flashpoint less than 23°C | 18 | 2762 |
| ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC | 34 | 2996 |
| ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flashpoint not less than 23°C | 19 | 2995 |
| ORGANOCHLORINE PESTICIDE, SOLID, TOXIC | 34 | 2761 |
| ORGANOMETALLIC COMPOUND or COMPOUND SOLUTION or COMPOUND DISPERSION, WATER-REACTIVE, FLAMMABLE, N.O.S. | 26 | 3207* |
| ORGANOMETALLIC COMPOUND, SOLID, WATER-REACTIVE, FLAMMABLE, N.O.S. | 27 | 3372* |
| ORGANOMETALLIC COMPOUND, TOXIC,LIQUID, N.O.S. | 34 | 3282 |
| ORGANOMETALLIC COMPOUND, TOXIC, SOLID, N.O.S. | 35 | 3467 |
| ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC | 23 | 3392 |
| ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER REACTIVE | 26 | 3394 |
| ORGANOMETALLIC SUBSTANCE, LIQUID, WATER REACTIVE | 27 | 3398 |
| ORGANOMETALLIC SUBSTANCE, LIQUID, WATER REACTIVE, FLAMMABLE | 26 | 3399 |
| ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC | 23 | 3391 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC, WATER REACTIVE | 26 | 3393 |
| ORGANOMETALLIC SUBSTANCE, SOLID, SELF-HEATING | 25 | 3400 |
| ORGANOMETALLIC SUBSTANCE, SOLID, WATER REACTIVE | 27 | 3395 |
| ORGANOMETALLIC SUBSTANCE, SOLID, WATER REACTIVE, FLAMMABLE | 27 | 3396 |
| ORGANOMETALLIC SUBSTANCE, SOLID, WATER REACTIVE, SELF-HEATING | 27 | 3397 |
| ORGANOPHOSPHORUS COMPOUND, TOXIC, FLAMMABLE, N.O.S. | 38 | 3279 |
| ORGANOPHOSPHORUS COMPOUND, TOXIC, LIQUID, N.O.S. | 35 | 3278 |
| ORGANOPHOSPHORUS COMPOUND, TOXIC, SOLID, N.O.S. | 35 | 3464 |
| ORGANOPHOSPHORUS PESTICIDE, LIQUID, FLAMMABLE, TOXIC, flashpoint less than 23°C | 16 | 2784 |
| ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC | 35 | 3018 |
| ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flashpoint not less than 23°C | 17 | 3017 |
| ORGANOPHOSPHORUS PESTICIDE, SOLID, TOXIC | 35 | 2783 |
| ORGANOTIN COMPOUND, LIQUID, N.O.S. | 36 | 2788 |
| ORGANOTIN COMPOUND, SOLID, N.O.S. | 36 | 3146 |
| ORGANOTIN PESTICIDE, LIQUID, FLAMMABLE, TOXIC, flashpoint less than 23°C | 16 | 2787 |
| ORGANOTIN PESTICIDE, LIQUID, TOXIC | 36 | 3020 |
| ORGANOTIN PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flashpoint not less than 23°C | 17 | 3019 |
| ORGANOTIN PESTICIDE, SOLID, TOXIC | 36 | 2786 |
| Orthophosphoric acid | 37 | 1805 |
| Orthophosphoric acid | 37 | 3453 |
| OSMIUM TETROXIDE | 37 | 2471 |
| OXALATES, WATER-SOLUBLE | 37 | 2449* |
| OXIDIZING LIQUID, N.O.S. | 31 | 3139 |
| OXIDIZING LIQUID, CORROSIVE, N.O.S. | 31 | 3098 |
| OXIDIZING LIQUID, TOXIC, N.O.S. | 31 | 3099 |
| OXIDIZING SOLID, N.O.S. | 31 | 1479 |
| OXIDIZING SOLID, CORROSIVE, N.O.S. | 31 | 3085 |
| OXIDIZING SOLID, FLAMMABLE, N.O.S. | 31 | 3137 |
| OXIDIZING SOLID, SELF-HEATING, N.O.S. | 31 | 3100 |
| OXIDIZING SOLID, TOXIC, N.O.S. | 31 | 3087 |
| OXIDIZING SOLID, WATER-REACTIVE, N.O.S. | 28 | 3121 |
| Oxirane | 05D | 1040 |
| Oxygen and carbon dioxide mixture | 10 | 1014 |
| OXYGEN, COMPRESSED | 11 | 1072 |
| OXYGEN DIFLUORIDE, COMPRESSED | 12 | 2190 |
| OXYGEN GENERATOR, CHEMICAL | 31 | 3356 |
| Oxygen, mixture with rare gases | 10 | 1980 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| OXYGEN, REFRIGERATED LIQUID | 11 | 1073 |
| 1-Oxy-4-nitrobenzene | 36 | 1663 |
| PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) | 14 | 1263 |
| PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) | 36 | 3066 |
| PAINT, CORROSIVE, FLAMMABLE (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) | 36 | 3470 |
| PAINT, FLAMMABLE, CORROSIVE (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) | 18 | 3469 |
| PAINT RELATED MATERIAL (including paint thinning and reducing compound) | 14 | 1263 |
| PAINT RELATED MATERIAL (including paint thinning and reducing compound) | 36 | 3066 |
| PAINT RELATED MATERIAL, CORROSIVE, FLAMMABLE (including paint thinning or reducing compound) | 36 | 3470 |
| PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE (including paint thinning or reducing compound) | 18 | 3469 |
| PAPER, UNSATURATED OIL TREATED, incompletely dried (including carbon paper) | 23 | 1379 |
| Paraffin | 15 | 1223 |
| PARAFORMALDEHYDE | 20 | 2213 |
| PARALDEHYDE | 19 | 1264 |
| Parathion | 35 | 2783 |
| PCBs | 48 | 2315 |
| PCBs | 48 | 3432 |
| PD | 35 | 1556 |
| PENTABORANE | 25 | 1380 |
| PENTACHLOROETHANE | 34 | 1669 |
| PENTACHLOROPHENOL | 37 | 3155 |
| PENTAERYTHRITE TETRANITRATE with not less than 7% wax, by mass | 02 | 0411 |
| PENTAERYTHRITE TETRANITRATE, DESENSITIZED, with not less than 15% phlegmatizer, by mass | 02 | 0150 |
| PENTAERYTHRITE TETRANITRATE MIXTURE, DESENSITIZED, SOLID, N.O.S. with more than 10% but not more than 20% PETN, by mass | 52 | 3344 |
| PENTAERYTHRITE TETRANITRATE, WETTED with not less than 25% water, by mass | 02 | 0150 |
| PENTAERYTHRITOL TETRANITRATE | 02 | 0150 |
| PENTAERYTHRITOL TETRANITRATE | 02 | 0411 |
| PENTAERYTHRITOL TETRANITRATE MIXTURE, DESENSITIZED | 52 | 3344 |
| PENTAFLUOROETHANE (REFRIGERANT GAS R 125) | 06 | 3220 |
| Pentafluoroethane, 1,1,1-trifluoroethane, and 1,1,1,2-tetrafluoroethane zeotropic mixture with approximately 44% pentafluoroethane and 52% 1,1,1-trifluoroethan | 06 | 3337 |
| PENTAMETHYLHEPTANE | 15 | 2286 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Pentanal | 18 | 2058 |
| n-Pentane | 14 | 1265 |
| PENTANE-2,4-DIONE | 15 | 2310 |
| PENTANES, liquid | 14 | 1265 |
| 3-Pentanol | 16 | 1105 |
| PENTANOLS | 16 | 1105 |
| 1-PENTENE (n-AMYLENE) | 14 | 1108 |
| 1-PENTOL | 19P | 2705 |
| PENTOLITE, dry or wetted with less than 15% water, by mass | 02 | 0151 |
| Pentyl nitrite | 16 | 1113 |
| PERCARBONATES, INORGANIC, N.O.S. | 29 | 3217* |
| PERCHLORATES, INORGANIC, N.O.S. | 31 | 1481 |
| PERCHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. | 31 | 3211 |
| PERCHLORIC ACID with more than 50% but not more than 72% acid, by mass | 31 | 1873 |
| PERCHLORIC ACID with not more than 50% acid, by mass | 31 | 1802 |
| Perchlorobenzene | 35 | 2729 |
| Perchlorocyclopentadiene | 34 | 2646 |
| Perchloroethylene | 37 | 1897 |
| PERCHLOROMETHYL MERCAPTAN | 40 | 1670 |
| PERCHLORYL FLUORIDE | 12 | 3083 |
| Perfluoroacetylchloride | 07 | 3057 |
| PERFLUORO (ETHYL VINYL ETHER) | 04 | 3154 |
| PERFLUORO (METHYL VINYL ETHER) | 04 | 3153 |
| Perfluoropropane | 06 | 2424 |
| PERFUMERY PRODUCTS with flammable solvents | 14 | 1266 |
| PERMANGANATES, INORGANIC, N.O.S. | 31 | 1482 |
| PERMANGANATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. | 31 | 3214 |
| PEROXIDES, INORGANIC, N.O.S. | 31 | 1483 |
| PEROXYACETIC ACID | 32 | 2131* |
| PEROXYACETIC ACID | 32 | 3045* |
| PERSULPHATES, INORGANIC, N.O.S. | 31 | 3215 |
| PERSULPHATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. | 31 | 3216 |
| PESTICIDE, LIQUID, FLAMMABLE, TOXIC, N.O.S., flashpoint less than 23°C | 16 | 3021 |
| PESTICIDE, LIQUID, TOXIC, N.O.S. | 34 | 2902 |
| PESTICIDE, LIQUID, TOXIC, FLAMMABLE, N.O.S., flashpoint not less than 23°C | 17 | 2903 |
| PESTICIDE, SOLID, TOXIC, N.O.S. | 34 | 2588 |
| Pesticide, toxic, under compressed gas, n.o.s. | 49 | 1950 |
| PETN | 02 | 0150 |
| PETN | 02 | 0411 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| PETN, MIXTURE DESENSITIZED | 52 | 3344 |
| PETN.TNT | 02 | 0151 |
| PETROL | 14 | 1203 |
| PETROLEUM CRUDE OIL | 14 | 1267 |
| PETROLEUM FUEL (Aust) | 14 | 1270* |
| PETROLEUM SOUR CRUDE OIL, FLAMMABLE, TOXIC | 18 | 3494† |
| PETROLEUM DISTILLATES, N.O.S. | 14 | 1268 |
| PETROLEUM GASES, LIQUEFIED | 04 | 1075 |
| Petroleum naphtha | 14 | 1268 |
| Petroleum oil | 14 | 1268 |
| PETROLEUM PRODUCTS, N.O.S. | 14 | 1268 |
| Petroleum raffinate | 14 | 1268 |
| Petroleum spirit | 14 | 1268 |
| PETROLEUM SPIRIT | 14 | 1271* |
| PHENACYL BROMIDE | 36 | 2645 |
| PHENETIDINES | 36 | 2311 |
| PHENOLATES, LIQUID | 37 | 2904 |
| PHENOLATES, SOLID | 37 | 2905 |
| PHENOL, MOLTEN | 36 | 2312 |
| PHENOL, SOLID | 36 | 1671 |
| PHENOL SOLUTION | 36 | 2821 |
| PHENOLSULPHONIC ACID, LIQUID | 36 | 1803 |
| PHENOXYACETIC ACID DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC, flashpoint less than 23°C | 16 | 3346 |
| PHENOXYACETIC ACID DERIVATIVE PESTICIDE, LIQUID, TOXIC | 35 | 3348 |
| PHENOXYACETIC ACID DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flashpoint not less than 23°C | 17 | 3347 |
| PHENOXYACETIC ACID DERIVATIVE PESTICIDE, SOLID, TOXIC | 35 | 3345 |
| PHENOXY PESTICIDE, LIQUID, FLAMMABLE, TOXIC | 16 | 2766* |
| PHENOXY PESTICIDE, LIQUID, TOXIC | 35 | 3000* |
| PHENOXY PESTICIDE, LIQUID, TOXIC, FLAMMABLE | 17 | 2999* |
| PHENOXY PESTICIDE,SOLID, TOXIC | 35 | 2765* |
| PHENYLACETONITRILE, LIQUID | 35 | 2470 |
| PHENYLACETYL CHLORIDE | 39 | 2577 |
| Phenylamine | 36 | 1547 |
| 1-Phenylbutane | 15 | 2709 |
| 2-Phenylbutane | 15 | 2709 |
| PHENYLCARBYLAMINE CHLORIDE | 34 | 1672 |
| PHENYL CHLOROFORMATE | 39 | 2746 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Phenyl cyanide | 35 | 2224 |
| PHENYLENEDIAMINES (o-, m-, p-) | 36 | 1673 |
| Phenylethylene | 19P | 2055 |
| PHENYLHYDRAZINE | 36 | 2572 |
| PHENYL ISOCYANATE | 38 | 2487 |
| Phenylisocyanodichloride | 35 | 2224 |
| PHENYL MERCAPTAN | 16 | 2337 |
| PHENYLMERCURIC ACETATE | 34 | 1674 |
| PHENYLMERCURIC COMPOUND, N.O.S. | 34 | 2026 |
| PHENYLMERCURIC HYDROXIDE | 34 | 1894 |
| PHENYLMERCURIC NITRATE | 34 | 1895 |
| PHENYLPHOSPHORUS DICHLORIDE | 39 | 2798 |
| PHENYLPHOSPHORUS THIODICHLORIDE | 39 | 2799 |
| 2-Phenylpropene | 15 | 2303 |
| PHENYLTRICHLOROSILANE | 39 | 1804 |
| PHENYL UREA PESTICIDE, LIQUID, FLAMMABLE, TOXIC | 16 | 2768* |
| PHENYL UREA PESTICIDE, LIQUID, TOXIC | 34 | 3002* |
| PHENYL UREA PESTICIDE, LIQUID, TOXIC, FLAMMABLE | 17 | 3001* |
| PHENYL UREA PESTICIDE, SOLID, TOXIC | 34 | 2767* |
| PHOSGENE | 07 | 1076 |
| 9-PHOSPHABICYCLONONANES (CYCLOOCTADIENE PHOSPHINES) | 23 | 2940 |
| PHOSPHINE | 13 | 2199 |
| Phosphoretted hydrogen | 13 | 2199 |
| PHOSPHORIC ACID, SOLUTION | 37 | 1805 |
| PHOSPHORIC ACID, SOLID | 37 | 3453 |
| Phosphoric acid, anhydrous | 40 | 1807 |
| PHOSPHOROUS ACID | 37 | 2834 |
| PHOSPHORUS, AMORPHOUS | 20 | 1338 |
| Phosphorus bromide | 40 | 1808 |
| Phosphorus chloride | 40 | 1809 |
| PHOSPHORUS HEPTASULPHIDE, free from yellow and white phosphorus | 27 | 1339 |
| PHOSPHORUS OXYBROMIDE | 40 | 1939 |
| PHOSPHORUS OXYBROMIDE, MOLTEN | 40 | 2576 |
| PHOSPHORUS OXYCHLORIDE | 40 | 1810 |
| PHOSPHORUS PENTABROMIDE | 40 | 2691 |
| PHOSPHORUS PENTACHLORIDE | 40 | 1806 |
| PHOSPHORUS PENTAFLUORIDE | 07 | 2198 |
| PHOSPHORUS PENTASULPHIDE, free from yellow and white phosphorus | 27 | 1340 |
| PHOSPHORUS PENTOXIDE | 40 | 1807 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| PHOSPHORUS SESQUISULPHIDE, free from yellow and white phosphorus | 25 | 1341 |
| Phosphorus (V) sulphide, free from yellow and white phosphorus | 27 | 1340 |
| Phosphorus sulphochloride | 40 | 1837 |
| PHOSPHORUS TRIBROMIDE | 40 | 1808 |
| PHOSPHORUS TRICHLORIDE | 40 | 1809 |
| PHOSPHORUS TRIOXIDE | 23 | 2578 |
| PHOSPHORUS TRISULPHIDE, free from yellow and white phosphorus | 38 | 1343 |
| PHOSPHORUS, WHITE, DRY | 24 | 1381 |
| PHOSPHORUS, WHITE IN SOLUTION | 24 | 1381 |
| PHOSPHORUS, WHITE, MOLTEN | 24 | 2447 |
| PHOSPHORUS, WHITE UNDER WATER | 24 | 1381 |
| PHOSPHORUS, YELLOW, DRY | 24 | 1381 |
| PHOSPHORUS, YELLOW, IN SOLUTION | 24 | 1381 |
| PHOSPHORUS, YELLOW, UNDER WATER | 24 | 1381 |
| Phosphoryl chloride | 40 | 1810 |
| PHOTO-FLASH POWDER | 02 | 0096* |
| PHTHALIC ANHYDRIDE with more than 0.05% of maleic anhydride | 39 | 2214 |
| PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC | 16 | 2774* |
| PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC | 34 | 3008* |
| PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE | 17 | 3007* |
| PHTHALIMIDE DERIVATIVE PESTICIDE, SOLID, TOXIC | 34 | 2773* |
| PICOLINES | 18 | 2313 |
| PICRAMIDE | 02 | 0153 |
| PICRIC ACID | 02 | 0154 |
| PICRIC ACID, WETTED | 52 | 1344 |
| PICRIC ACID, WETTED | 52 | 3364 |
| PICRITE | 02 | 0282 |
| PICRITE, WETTED | 52 | 1336 |
| Picrotoxin | 36 | 3172 |
| Picrotoxin | 38 | 3462 |
| PICRYL CHLORIDE | 02 | 0155 |
| PICRYL CHLORIDE, WETTED | 52 | 3365 |
| PINANE HYDROPEROXIDE | 32 | 2162* |
| PINDONE | 34 | 2472* |
| alpha-PINENE | 14 | 2368 |
| PINE OIL | 14 | 1272 |
| PIPERAZINE | 36 | 2579 |
| PIPERIDINE | 19 | 2401 |
| Pivaloyl chloride | 38 | 2438 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Plastic explosives | 02 | 0084 |
| PLASTICS MOULDING COMPOUND in dough, sheet or extruded rope form evolving flammable vapour | 20 | 3314 |
| PLASTICS, NITROCELLULOSE-BASED, SELF-HEATING, N.O.S. | 23 | 2006 |
| POLISH | 14 | 1263 |
| POLISH (Aust.) | 14 | 1263 |
| POLISH (Aust.) | 36 | 3066 |
| POLYAMINES, FLAMMABLE, CORROSIVE, N.O.S. | 18 | 2733 |
| POLYAMINES, LIQUID, CORROSIVE, N.O.S. | 36 | 2735 |
| POLYAMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. | 18 | 2734 |
| POLYAMINES, SOLID, CORROSIVE, N.O.S. | 37 | 3259 |
| POLYCHLORINATED BIPHENYLS, LIQUID | 48 | 2315 |
| POLYCHLORINATED BIPHENYLS, SOLID | 48 | 3432 |
| POLYESTER RESIN KIT | 15 | 3269 |
| POLYHALOGENATED BIPHENYLS, LIQUID | 48 | 3151 |
| POLYHALOGENATED BIPHENYLS, SOLID | 48 | 3152 |
| POLYHALOGENATED TERPHENYLS, LIQUID | 48 | 3151 |
| POLYHALOGENATED TERPHENYLS, SOLID | 48 | 3152 |
| POLYMERIC BEADS, EXPANDABLE, evolving flammable vapour | 20 | 2211 |
| Polystyrene beads, expandable | 20 | 2211 |
| POTASSIUM | 27 | 2257 |
| POTASSIUM ARSENATE | 34 | 1677 |
| POTASSIUM ARSENITE | 37 | 1678 |
| Potassium bifluoride | 37 | 1811 |
| Potassium bisulphate | 37 | 2509 |
| Potassium bisulphate solution | 37 | 2693 |
| POTASSIUM BOROHYDRIDE | 26 | 1870 |
| POTASSIUM BROMATE | 31 | 1484 |
| POTASSIUM CHLORATE | 31 | 1485 |
| POTASSIUM CHLORATE, AQUEOUS SOLUTION | 31 | 2427 |
| Potassium chlorate mixed with mineral oil | 02 | 0083 |
| POTASSIUM CUPROCYANIDE | 40 | 1679 |
| POTASSIUM CYANIDE, SOLID | 34 | 1680 |
| POTASSIUM CYANIDE SOLUTION | 34 | 3413 |
| Potassium dicyanocuprate (I) | 40 | 1679 |
| POTASSIUM DITHIONITE (POTASSIUM HYDROSULPHITE) | 25 | 1929 |
| POTASSIUM FLUORIDE, SOLID | 37 | 1812 |
| POTASSIUM FLUORIDE SOLUTION | 37 | 3422 |
| POTASSIUM FLUOROACETATE | 34 | 2628 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| POTASSIUM FLUOROSILICATE | 34 | 2655 |
| Potassium hexafluorosilicate | 34 | 2655 |
| Potassium hydrate | 37 | 1814 |
| POTASSIUM HYDROGEN DIFLUORIDE, SOLID | 37 | 1811 |
| POTASSIUM HYDROGEN DIFLUORIDE SOLUTION | 37 | 3421 |
| POTASSIUM HYDROGEN SULPHATE | 37 | 2509 |
| POTASSIUM HYDROSULPHITE | 25 | 1929 |
| Potassium hydroxide, liquid | 37 | 1814 |
| POTASSIUM HYDROXIDE, SOLID | 37 | 1813 |
| POTASSIUM HYDROXIDE SOLUTION | 37 | 1814 |
| POTASSIUM METAL ALLOYS, LIQUID | 26 | 1420 |
| POTASSIUM METAL ALLOYS, SOLID | 26 | 3403 |
| POTASSIUM METAVANADATE | 34 | 2864 |
| POTASSIUM MONOXIDE | 37 | 2033 |
| POTASSIUM NITRATE | 31 | 1486 |
| Potassium nitrate and sodium nitrate mixture | 31 | 1499 |
| POTASSIUM NITRATE AND SODIUM NITRITE MIXTURE | 31 | 1487 |
| POTASSIUM NITRITE | 31 | 1488 |
| POTASSIUM PERCHLORATE | 31 | 1489 |
| POTASSIUM PERMANGANATE | 31 | 1490 |
| POTASSIUM PEROXIDE | 28 | 1491 |
| POTASSIUM PERSULPHATE | 31 | 1492 |
| POTASSIUM PHOSPHIDE | 27 | 2012 |
| POTASSIUM SALTS OF NITRO AROMATIC DERIVATIVES | 02 | 0158* |
| Potassium selenate | 34 | 2630 |
| Potassium selenite | 34 | 2630 |
| Potassium silicofluoride | 34 | 2655 |
| POTASSIUM SODIUM ALLOYS, LIQUID | 26 | 1422 |
| POTASSIUM SODIUM ALLOYS, SOLID | 26 | 3404 |
| POTASSIUM SULPHIDE, ANHYDROUS | 23 | 1382 |
| POTASSIUM SULPHIDE with less than 30% water of crystallization | 23 | 1382 |
| POTASSIUM SULPHIDE, HYDRATED with not less than 30% water of crystallization | 38 | 1847 |
| POTASSIUM SUPEROXIDE | 28 | 2466 |
| Potassium tetracyanomercurate (II) | 40 | 1626 |
| POWDER CAKE, WETTED with not less than 17% alcohol, by mass | 02 | 0433 |
| POWDER CAKE, WETTED with not less than 25% water, by mass | 02 | 0159 |
| POWDER PASTE | 02 | 0433 |
| POWDER PASTE | 02 | 0159 |
| POWDER, SMOKELESS | 02 | 0160 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| POWDER, SMOKELESS | 02 | 0161 |
| POWDER, SMOKELESS | 03 | 0509 |
| Power devices, explosive | 02 | 0381 |
| Power devices, explosive | 02 | 0275 |
| Power devices, explosive | 03 | 0276 |
| Power devices, explosive | 03 | 0323 |
| PRIMERS, CAP TYPE | 03 | 0044 |
| PRIMERS, CAP TYPE | 02 | 0377 |
| PRIMERS, CAP TYPE | 03 | 0378 |
| Primers, small arms | 03 | 0044 |
| PRIMERS, TUBULAR | 02 | 0319 |
| PRIMERS, TUBULAR | 03 | 0320 |
| PRIMERS, TUBULAR | 03 | 0376 |
| PRINTING INK, flammable or PRINTING INK RELATED MATERIAL (including printing ink thinning or reducing compound), flammable | 16 | 1210 |
| Projectiles, illuminating | 02 | 0171 |
| Projectiles, illuminating | 02 | 0254 |
| Projectiles, illuminating | 03 | 0297 |
| PROJECTILES, inert with tracer | 03 | 0345 |
| PROJECTILES, inert with tracer | 02 | 0424 |
| PROJECTILES, inert with tracer | 03 | 0425 |
| PROJECTILES with burster or expelling charge | 02 | 0346 |
| PROJECTILES with burster or expelling charge | 00 | 0347 |
| PROJECTILES with burster or expelling charge | 02 | 0426 |
| PROJECTILES with burster or expelling charge | 03 | 0427 |
| PROJECTILES with burster or expelling charge | 02 | 0434 |
| PROJECTILES with burster or expelling charge | 03 | 0435 |
| PROJECTILES with bursting charge | 02 | 0167 |
| PROJECTILES with bursting charge | 02 | 0168 |
| PROJECTILES with bursting charge | 02 | 0169 |
| PROJECTILES with bursting charge | 02 | 0324 |
| PROJECTILES with bursting charge | 03 | 0344 |
| Propadiene and methyl acetylene mixture, stabilized | 04P | 1060 |
| PROPADIENE, STABILIZED | 04P | 2200 |
| PROPANE | 04 | 1978 |
| PROPANETHIOLS | 16 | 2402 |
| n-PROPANOL | 16 | 1274 |
| PROPELLANT, LIQUID | 02 | 0495 |
| PROPELLANT, LIQUID | 02 | 0497 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| PROPELLANT, SOLID | 02 | 0498 |
| PROPELLANT, SOLID | 02 | 0499 |
| PROPELLANT, SOLID | 02 | 0501 |
| Propellant with a single base, | 02 | 0160 |
| Propellant with a double base, | 02 | 0160 |
| Propellant with a triple base | 02 | 0161 |
| Propene | 04P | 1077 |
| PROPIONALDEHYDE | 18 | 1275 |
| PROPIONIC ACID with not less than 10% and less than 90% acid by mass | 19 | 1848 |
| PROPIONIC ACID with not less than 90% acid by mass | 36 | 3463 |
| PROPIONIC ANHYDRIDE | 39 | 2496 |
| PROPIONITRILE | 17 | 2404 |
| PROPIONYL CHLORIDE | 38 | 1815 |
| PROPIONYL PEROXIDE | 33 | 2132* |
| n-PROPYL ACETATE | 18 | 1276 |
| PROPYL ALCOHOL, NORMAL | 16 | 1274 |
| PROPYLAMINE | 18 | 1277 |
| n-PROPYLBENZENE | 15 | 2364 |
| Propyl chloride | 16 | 1278 |
| n-PROPYL CHLOROFORMATE | 38 | 2740 |
| PROPYLENE | 04P | 1077 |
| PROPYLENE CHLOROHYDRIN | 17 | 2611 |
| 1,2-PROPYLENEDIAMINE | 19 | 2258 |
| Propylene dichloride | 18 | 1279 |
| PROPYLENEIMINE, STABILIZED | 19P | 1921 |
| PROPYLENE OXIDE | 14P | 1280 |
| PROPYLENE TETRAMER | 15 | 2850 |
| Propylene trimer | 14 | 2057 |
| PROPYL FORMATES | 18 | 1281 |
| n-PROPYL ISOCYANATE | 38 | 2482 |
| Propyl mercaptan | 16 | 2402 |
| PROPYL MERCAPTAN | 16 | 2704* |
| n-PROPYL NITRATE | 16 | 1865 |
| PROPYLTRICHLOROSILANE | 25 | 1816 |
| Pyrazine hexahydride | 36 | 2579 |
| PYRETHROID PESTICIDE, LIQUID, FLAMMABLE, TOXIC, flashpoint less than 23°C | 16 | 3350 |
| PYRETHROID PESTICIDE, LIQUID, TOXIC | 34 | 3352 |
| PYRETHROID PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flashpoint not less than 23°C | 17 | 3351 |
| PYRETHROID PESTICIDE, SOLID, TOXIC | 34 | 3349 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| PYRIDINE | 19 | 1282 |
| PYROPHORIC ALLOY, N.O.S. | 23 | 1383 |
| PYROPHORIC LIQUID, INORGANIC, N.O.S. | 23 | 3194 |
| PYROPHORIC LIQUID, ORGANIC, N.O.S. | 23 | 2845 |
| PYROPHORIC METAL, N.O.S. or PYROPHORIC ALLOY, N.O.S. | 23 | 1383 |
| PYROPHORIC ORGANOMETALLIC COMPOUND, WATER-REACTIVE, N.O.S. | 23 | 3203* |
| PYROPHORIC SOLID, INORGANIC, N.O.S. | 23 | 3200 |
| PYROPHORIC SOLID, ORGANIC, N.O.S. | 23 | 2846 |
| PYROSULPHURYL CHLORIDE | 40 | 1817 |
| Pyroxylin solution | 52 | 2059 |
| PYRROLIDINE | 18 | 1922 |
| Quinol | 36 | 2662 |
| QUINOLINE | 36 | 2656 |
| Quinone | 36 | 2587 |
| RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - ARTICLES MANUFACTURED FROM NATURAL URANIUM or DEPLETED URANIUM or NATURAL THORIUM | 43 | 2909 |
| RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - EMPTY PACKAGING | 42 | 2908 |
| RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - INSTRUMENTS or ARTICLES | 43 | 2911 |
| RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - LIMITED QUANTITY OF MATERIAL | 43 | 2910 |
| RADIOACTIVE MATERIAL, FISSILE, N.O.S. | 42 | 2918* |
| RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I), non fissile or fissile-excepted | 43 | 2912 |
| RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II), FISSILE | 43 | 3324 |
| RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II), non fissile or fissile-excepted | 43 | 3321 |
| RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-III), FISSILE | 43 | 3325 |
| RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-III), non fissile or fissile-excepted | 43 | 3322 |
| RADIOACTIVE MATERIAL, N.O.S. | 42 | 2982* |
| RADIOACTIVE MATERIAL, SPECIAL FORM, N.O.S. | 42 | 2974* |
| RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-I or SCO-II), FISSILE | 42 | 3326 |
| RADIOACTIVE MATERIAL, SURFACE CONTAMINATED OBJECTS (SCO-I or SCO-II), non fissile or fissile-excepted | 42 | 2913 |
| RADIOACTIVE MATERIAL, TRANSPORTED UNDER SPECIAL ARRANGEMENT, FISSILE | 42 | 3331 |
| RADIOACTIVE MATERIAL, TRANSPORTED UNDER SPECIAL ARRANGEMENT, non fissile or fissile-excepted | 42 | 2919 |
| RADIOACTIVE MATERIAL, TYPE A PACKAGE, FISSILE, non-special form | 42 | 3327 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| RADIOACTIVE MATERIAL, TYPE A PACKAGE, non-special form, non fissile or fissile-excepted | 42 | 2915 |
| RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM, FISSILE | 42 | 3333 |
| RADIOACTIVE MATERIAL, TYPE A PACKAGE, SPECIAL FORM, non fissile or fissile-excepted | 42 | 3332 |
| RADIOACTIVE MATERIAL, TYPE B(M) PACKAGE, FISSILE | 42 | 3329 |
| RADIOACTIVE MATERIAL, TYPE B(M) PACKAGE, non fissile or fissile-excepted | 42 | 2917 |
| RADIOACTIVE MATERIAL, TYPE B(U) PACKAGE, FISSILE | 42 | 3328 |
| RADIOACTIVE MATERIAL, TYPE B(U) PACKAGE, non fissile or fissile-excepted | 42 | 2916 |
| RADIOACTIVE MATERIAL, TYPE C PACKAGE, FISSILE | 42 | 3330 |
| RADIOACTIVE MATERIAL, TYPE C PACKAGE, non fissile or fissile-excepted | 43 | 3323 |
| RADIOACTIVE MATERIAL, URANIUM HEXAFLUORIDE, FISSILE | 46 | 2977 |
| RADIOACTIVE MATERIAL, URANIUM HEXAFLUORIDE, non fissile or fissile-excepted | 46 | 2978 |
| RAGS, OILY | 23 | 1856 |
| RARE GASES AND NITROGEN MIXTURE, COMPRESSED | 08 | 1981* |
| RARE GASES AND OXYGEN MIXTURE, COMPRESSED | 10 | 1980* |
| RARE GASES MIXTURE, COMPRESSED | 08 | 1979* |
| RDX | 02 | 0072 |
| RDX | 02 | 0391 |
| RDX | 02 | 0483 |
| RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES) without a release device, non-refillable | 04 | 2037 |
| Red phosphorous | 20 | 1338 |
| REFRIGERANT GAS, N.O.S. | 06 | 1078 |
| REFRIGERANT GAS R 12 | 06 | 1028 |
| REFRIGERANT GAS R 12B1 | 06 | 1974 |
| REFRIGERANT GAS R 13 | 06 | 1022 |
| REFRIGERANT GAS R 13B1 | 06 | 1009 |
| REFRIGERANT GAS R 14 | 06 | 1982 |
| REFRIGERANT GAS R 21 | 06 | 1029 |
| REFRIGERANT GAS R 22 | 06 | 1018 |
| REFRIGERANT GAS R 23 | 06 | 1984 |
| REFRIGERANT GAS R 32 | 04 | 3252 |
| REFRIGERANT GAS R 40 | 05 | 1063 |
| REFRIGERANT GAS R 41 | 04 | 2454 |
| REFRIGERANT GAS R 114 | 07 | 1958 |
| REFRIGERANT GAS R 115 | 06 | 1020 |
| REFRIGERANT GAS R 116 | 06 | 2193 |
| REFRIGERANT GAS R 124 | 06 | 1021 |
| REFRIGERANT GAS R 125 | 06 | 3220 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| REFRIGERANT GAS R 133a | 06 | 1983 |
| REFRIGERANT GAS R 134a | 06 | 3159 |
| REFRIGERANT GAS R 142b | 04 | 2517 |
| REFRIGERANT GAS R 143a | 06 | 2035 |
| REFRIGERANT GAS R 152a | 04 | 1030 |
| REFRIGERANT GAS R 161 | 04 | 2453 |
| REFRIGERANT GAS R 218 | 06 | 2424 |
| REFRIGERANT GAS R 227 | 08 | 3296 |
| REFRIGERANT GAS R 404A | 06 | 3337 |
| REFRIGERANT GAS R 407A | 06 | 3338 |
| REFRIGERANT GAS R 407B | 06 | 3339 |
| REFRIGERANT GAS R 407C | 06 | 3340 |
| REFRIGERANT GAS R 500 | 06 | 2602 |
| REFRIGERANT GAS R 502 | 06 | 1973 |
| REFRIGERANT GAS R 503 | 06 | 2599 |
| REFRIGERANT GAS R 1132a | 06 | 1959 |
| REFRIGERANT GAS R 1216 | 06P | 1207 |
| REFRIGERANT GAS R 1318 | 06 | 2422 |
| REFRIGERANT GAS RC 318 | 06 | 1976 |
| REFRIGERATING MACHINES containing flammable, non-toxic, liquefied gas | 04 | 3358 |
| REFRIGERATING MACHINES containing non-flammable, non-toxic, or ammonia solutions (UN 2672) | 06 | 2857 |
| REGULATED MEDICAL WASTE, N.O.S. | 41 | 3291 |
| RELEASE DEVICES, EXPLOSIVE | 03 | 0173 |
| RESIN | 15 | 2868* |
| RESIN SOLUTION, flammable | 14 | 1866 |
| RESIN, SOLUTIONS, TOXIC | 16 | 1896* |
| Resorcin | 36 | 2876 |
| RESORCINOL | 36 | 2876 |
| RIVETS, EXPLOSIVE | 03 | 0174 |
| ROCKET MOTORS | 02 | 0186 |
| ROCKET MOTORS | 02 | 0280 |
| ROCKET MOTORS | 02 | 0281 |
| ROCKET MOTORS, LIQUID FUELLED | 02 | 0395 |
| ROCKET MOTORS, LIQUID FUELLED | 02 | 0396 |
| ROCKET MOTORS WITH HYPERGOLIC LIQUIDS with or without expelling charge | 02 | 0250 |
| ROCKET MOTORS WITH HYPERGOLIC LIQUIDS with or without expelling charge | 02 | 0322 |
| ROCKETS with bursting charge | 02 | 0180 |
| ROCKETS with bursting charge | 02 | 0181 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| ROCKETS with bursting charge | 02 | 0182 |
| ROCKETS with bursting charge | 02 | 0295 |
| ROCKETS with expelling charge | 02 | 0436 |
| ROCKETS with expelling charge | 02 | 0437 |
| ROCKETS with expelling charge | 03 | 0438 |
| ROCKETS with inert head | 02 | 0183 |
| ROCKETS with inert head | 02 | 0502 |
| ROCKETS, LINE-THROWING | 02 | 0238 |
| ROCKETS, LINE-THROWING | 02 | 0240 |
| ROCKETS, LINE-THROWING | 03 | 0453 |
| ROCKETS, LIQUID FUELLED with bursting charge | 02 | 0397 |
| ROCKETS, LIQUID FUELLED with bursting charge | 02 | 0398 |
| RODENTICIDES, N.O.S. | 34 | 1681* |
| ROSIN OIL | 14 | 1286 |
| RUBBER SCRAP, powdered or granulated, not exceeding 840 microns and rubber content exceeding 45% | 20 | 1345 |
| RUBBER SHODDY, powdered or granulated, not exceeding 840 microns and rubber content exceeding 45% | 20 | 1345 |
| RUBBER SOLUTION | 14 | 1287 |
| RUBIDIUM | 25 | 1423 |
| RUBIDIUM HYDROXIDE | 37 | 2678 |
| RUBIDIUM HYDROXIDE SOLUTION | 37 | 2677 |
| Rubidium nitrate | 31 | 1477 |
| SA | 05 | 2188 |
| Saltpetre | 31 | 1486 |
| SAMPLES, EXPLOSIVE, other than initiating explosive | 02 | 0190 |
| Sand acid | 37 | 1778 |
| Sarin | 36 | 2810 |
| SEAT-BELT PRETENSIONERS | 47 | 3268 |
| SEED CAKE with more than 1.5% oil and not more than 11% moisture | 23 | 1386 |
| SEED CAKE with not more than 1.5% oil and not more than 11% moisture | 23 | 2217 |
| Seed expellers | 23 | 1386 |
| Seed expellers | 23 | 2217 |
| SELENATES | 34 | 2630 |
| SELENIC ACID | 37 | 1905 |
| SELENITES | 34 | 2630 |
| SELENIUM COMPOUND, LIQUID, N.O.S. | 34 | 3440 |
| SELENIUM COMPOUND, SOLID, N.O.S. | 34 | 3283 |
| SELENIUM DISULPHIDE | 36 | 2657 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| SELENIUM HEXAFLUORIDE | 07 | 2194 |
| SELENIUM, METAL, POWDER, NON-PYROPHORIC | 35 | 2658* |
| SELENIUM OXYCHLORIDE | 40 | 2879 |
| SELF-HEATING LIQUID, CORROSIVE, INORGANIC, N.O.S. | 23 | 3188 |
| SELF-HEATING LIQUID, CORROSIVE, ORGANIC, N.O.S. | 23 | 3185 |
| SELF-HEATING LIQUID, INORGANIC, N.O.S. | 23 | 3186 |
| SELF-HEATING LIQUID, ORGANIC, N.O.S. | 23 | 3183 |
| SELF-HEATING LIQUID, TOXIC, INORGANIC, N.O.S. | 23 | 3187 |
| SELF-HEATING LIQUID, TOXIC, ORGANIC, N.O.S. | 23 | 3184 |
| SELF-HEATING SOLID, CORROSIVE, INORGANIC, N.O.S. | 23 | 3192 |
| SELF-HEATING SOLID, CORROSIVE, ORGANIC, N.O.S. | 23 | 3126 |
| SELF-HEATING SOLID, INORGANIC, N.O.S. | 23 | 3190 |
| SELF-HEATING SOLID, ORGANIC, N.O.S. | 23 | 3088 |
| SELF-HEATING SOLID, OXIDIZING, N.O.S. | 23 | 3127 |
| SELF-HEATING SOLID, TOXIC, INORGANIC, N.O.S. | 23 | 3191 |
| SELF-HEATING SOLID, TOXIC, ORGANIC, N.O.S. | 23 | 3128 |
| SELF-REACTIVE LIQUID TYPE B | 21 | 3221 |
| SELF-REACTIVE LIQUID TYPE B, TEMPERATURE CONTROLLED | 22 | 3231 |
| SELF-REACTIVE LIQUID TYPE C | 21 | 3223 |
| SELF-REACTIVE LIQUID TYPE C, TEMPERATURE CONTROLLED | 22 | 3233 |
| SELF-REACTIVE LIQUID TYPE D | 21 | 3225 |
| SELF-REACTIVE LIQUID TYPE D, TEMPERATURE CONTROLLED | 22 | 3235 |
| SELF-REACTIVE LIQUID TYPE E | 21 | 3227 |
| SELF-REACTIVE LIQUID TYPE E, TEMPERATURE CONTROLLED | 22 | 3237 |
| SELF-REACTIVE LIQUID TYPE F | 21 | 3229 |
| SELF-REACTIVE LIQUID TYPE F, TEMPERATURE CONTROLLED | 22 | 3239 |
| SELF-REACTIVE SOLID TYPE B | 21 | 3222 |
| SELF-REACTIVE SOLID TYPE B, TEMPERATURE CONTROLLED | 22 | 3232 |
| SELF-REACTIVE SOLID TYPE C | 21 | 3224 |
| SELF-REACTIVE SOLID TYPE C, TEMPERATURE CONTROLLED | 22 | 3234 |
| SELF-REACTIVE SOLID TYPE D | 21 | 3226 |
| SELF-REACTIVE SOLID TYPE D, TEMPERATURE CONTROLLED | 22 | 3236 |
| SELF-REACTIVE SOLID TYPE E | 21 | 3228 |
| SELF-REACTIVE SOLID TYPE E, TEMPERATURE CONTROLLED | 22 | 3238 |
| SELF-REACTIVE SOLID TYPE F | 21 | 3230 |
| SELF-REACTIVE SOLID TYPE F, TEMPERATURE CONTROLLED | 22 | 3240 |
| SELF-REACTIVE SUBSTANCES, SAMPLES, N.O.S. | 21 | 3031* |
| SELF-REACTIVE SUBSTANCES, TRIAL QUANTITIES, N.O.S. | 21 | 3032* |
| SHALE OIL | 14 | 1288 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Shaped charges | 02 | 0059 |
| Shaped charges | 02 | 0439 |
| Shaped charges | 03 | 0440 |
| Shaped charges | 03 | 0441 |
| SIGNAL DEVICES, HAND | 03 | 0191 |
| SIGNAL DEVICES, HAND | 03 | 0373 |
| SIGNALS, DISTRESS, ship | 02 | 0194 |
| SIGNALS, DISTRESS, ship | 02 | 0195 |
| SIGNALS, DISTRESS, ship | 03 | 0505 |
| SIGNALS, DISTRESS, ship | 03 | 0506 |
| Signals, distress, ship, water-activated | 02 | 0249 |
| SIGNALS, RAILWAY TRACK, EXPLOSIVE | 02 | 0192 |
| SIGNALS, RAILWAY TRACK, EXPLOSIVE | 03 | 0193 |
| SIGNALS, RAILWAY TRACK, EXPLOSIVE | 02 | 0492 |
| SIGNALS, RAILWAY TRACK, EXPLOSIVE | 03 | 0493 |
| SIGNALS, SMOKE | 02 | 0196 |
| SIGNALS, SMOKE | 03 | 0197 |
| SIGNALS, SMOKE | 02 | 0313 |
| SIGNALS, SMOKE | 02 | 0487 |
| SIGNALS, SMOKE | 03 | 0507 |
| SILANE | 13D | 2203 |
| Silicofluoric acid | 37 | 1778 |
| Silicofluorides, n.o.s. | 34 | 2856 |
| Silicon chloride | 40 | 1818 |
| SILICON POWDER, AMORPHOUS | 29 | 1346 |
| SILICON TETRACHLORIDE | 40 | 1818 |
| SILICON TETRAFLUORIDE | 07 | 1859 |
| SILVER ARSENITE | 34 | 1683 |
| SILVER CYANIDE | 34 | 1684 |
| SILVER NITRATE | 31 | 1493 |
| SILVER PICRATE, WETTED with not less than 30% water, by mass | 52 | 1347 |
| SLUDGE ACID | 36 | 1906 |
| SODA LIME with more than 4% sodium hydroxide | 37 | 1907 |
| SODIUM | 26 | 1428 |
| Sodium aluminate, solid | 37 | 2812 |
| SODIUM ALUMINATE SOLUTION | 37 | 1819 |
| SODIUM ALUMINIUM HYDRIDE | 26 | 2835 |
| SODIUM AMALGAM | 26 | 1424* |
| SODIUM AMIDE | 27 | 1425* |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| SODIUM AMMONIUM VANADATE | 37 | 2863 |
| SODIUM ARSANILATE | 37 | 2473 |
| SODIUM ARSENATE | 34 | 1685 |
| SODIUM ARSENITE, AQUEOUS SOLUTION | 34 | 1686 |
| SODIUM ARSENITE, SOLID | 34 | 2027 |
| SODIUM AZIDE | 39 | 1687 |
| Sodium bifluoride | 37 | 2439 |
| Sodium binoxide | 28 | 1504 |
| Sodium bisulphite solution | 37 | 2693 |
| SODIUM BOROHYDRIDE | 26 | 1426 |
| SODIUM BOROHYDRIDE AND SODIUM HYDROXIDE SOLUTION, with not more than 12% sodium borohydride and not more than 40% sodium hydroxide by mass | 37 | 3320 |
| SODIUM BROMATE | 31 | 1494 |
| SODIUM CACODYLATE | 35 | 1688 |
| SODIUM CARBONATE PEROXYHYDRATE | 31 | 3378 |
| SODIUM CHLORATE | 31 | 1495 |
| SODIUM CHLORATE, AQUEOUS SOLUTION | 31 | 2428 |
| Sodium chlorate mixed with dinitrotoluene | 02 | 0083 |
| SODIUM CHLORITE | 31 | 1496 |
| SODIUM CHLOROACETATE | 34 | 2659 |
| SODIUM CUPROCYANIDE, SOLID | 40 | 2316 |
| SODIUM CUPROCYANIDE SOLUTION | 40 | 2317 |
| SODIUM CYANIDE, SOLID | 40 | 1689 |
| SODIUM CYANIDE SOLUTION | 40 | 3414 |
| SODIUM-2-DIAZO-1-NAPHTHOL-4-SULPHONATE | 21 | 3040* |
| SODIUM-2-DIAZO-1-NAPHTHOL-5-SULPHONATE | 21 | 3041* |
| Sodium dicyanocuprate (I), solid | 40 | 2316 |
| Sodium dicyanosuprate (I) solution | 40 | 2317 |
| Sodium dimethylarsenate | 35 | 1688 |
| SODIUM DINITRO-o-CRESOLATE, dry or wetted with less than 15% water, by mass | 02 | 0234 |
| SODIUM DINITRO-o-CRESOLATE, WETTED with not less than 15% water, by mass | 52 | 1348 |
| SODIUM DINITRO-o-CRESOLATE, WETTED, with not less than 10% water by mass | 52 | 3369 |
| Sodium dioxide | 28 | 1504 |
| SODIUM DITHIONITE (SODIUM HYDROSULPHITE) | 25 | 1384 |
| SODIUM FLUORIDE, SOLID | 37 | 1690 |
| SODIUM FLUORIDE SOLUTION | 37 | 3415 |
| SODIUM FLUOROACETATE | 34 | 2629 |
| SODIUM FLUOROSILICATE | 37 | 2674 |
| Sodium hexafluorosilicate | 37 | 2674 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Sodium hydrate | 37 | 1824 |
| SODIUM HYDRIDE | 26 | 1427 |
| Sodium hydrogen 4-amino-phenylarsenate | 37 | 2473 |
| SODIUM HYDROGEN DIFLUORIDE | 37 | 2439 |
| SODIUM HYDROSULPHIDE with less than 25% water of crystallization | 23 | 2318 |
| SODIUM HYDROSULPHIDE HYDRATED with not less than 25% water of crystallization | 37 | 2949 |
| SODIUM HYDROSULPHITE | 25 | 1384 |
| SODIUM HYDROXIDE, SOLID | 37 | 1823 |
| SODIUM HYDROXIDE SOLUTION | 37 | 1824 |
| SODIUM HYDROXIDE, SULPHATE | 37 | 1821* |
| Sodium hypochlorite | 37 | 1791 |
| Sodium metasilicate pentahydrate | 37 | 3253 |
| SODIUM METHYLATE | 25 | 1431 |
| SODIUM METHYLATE SOLUTION in alcohol | 19 | 1289 |
| SODIUM MONOXIDE | 40 | 1825 |
| SODIUM NITRATE | 31 | 1498 |
| SODIUM NITRATE and POTASH | 31 | 1478* |
| SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE | 31 | 1499 |
| SODIUM NITRITE | 31 | 1500 |
| Sodium nitrite and potassium nitrate mixture | 31 | 1487 |
| SODIUM PENTACHLOROPHENATE | 37 | 2567 |
| SODIUM PERBORATE MONOHYDRATE | 31 | 3377 |
| SODIUM PERCARBONATE | 31 | 2467* |
| SODIUM PERCHLORATE | 31 | 1502 |
| SODIUM PERMANGANATE | 31 | 1503 |
| SODIUM PEROXIDE | 28 | 1504 |
| SODIUM PEROXOBORATE, ANHYDROUS | 31 | 3247 |
| SODIUM PERSULPHATE | 31 | 1505 |
| SODIUM PHENOLATE | 37 | 2497* |
| SODIUM PHOSPHIDE | 27 | 1432 |
| SODIUM PICRAMATE, dry or wetted with less than 20% water, by mass | 02 | 0235 |
| SODIUM PICRAMATE, WETTED with not less than 20% water, by mass | 52 | 1349 |
| Sodium potassium alloys | 26 | 1422 |
| Sodium potassium alloys | 26 | 3404 |
| SODIUM SALTS OF NITRO AROMATIC DERIVATIVES | 02 | 0203* |
| Sodium selenate | 34 | 2630 |
| Sodium selenite | 34 | 2630 |
| Sodium silicofluoride | 37 | 2674 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| SODIUM SULPHIDE, ANHYDROUS | 23 | 1385 |
| SODIUM SULPHIDE, HYDRATED with not less than 30% water | 38 | 1849 |
| SODIUM SULPHIDE with less than 30% water of crystallization | 23 | 1385 |
| SODIUM SUPEROXIDE | 28 | 2547 |
| SOLIDS CONTAINING CORROSIVE LIQUID, N.O.S. | 37 | 3244 |
| SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. | 20 | 3175 |
| SOLIDS CONTAINING TOXIC LIQUID, N.O.S. | 34 | 3243 |
| Solvents, flammable, n.o.s. | 14 | 1993 |
| Solvents, flammable, toxic, n.o.s. | 16 | 1992 |
| Soman | 36 | 2810 |
| SOUNDING DEVICES, EXPLOSIVE | 02 | 0204 |
| SOUNDING DEVICES, EXPLOSIVE | 02 | 0296 |
| SOUNDING DEVICES, EXPLOSIVE | 02 | 0374 |
| SOUNDING DEVICES, EXPLOSIVE | 02 | 0375 |
| SQUIBS | 03 | 0206* |
| Squibs | 03 | 0325 |
| SQUIBS | 03 | 0422* |
| SQUIBS | 03 | 0423* |
| Squibs | 03 | 0454 |
| STAINS (Aust.) | 14 | 1263 |
| STAINS (Aust.) | 36 | 3066 |
| STANNIC CHLORIDE, ANHYDROUS | 40 | 1827 |
| STANNIC CHLORIDE PENTAHYDRATE | 37 | 2440 |
| STANNIC PHOSPHIDES | 27 | 1433 |
| Steel swarf | 29 | 2793 |
| STIBINE | 05 | 2676 |
| STRAW | 20 | 1327 |
| STRONTIUM ALLOYS, NON-PYROPHORIC | 26 | 1434* |
| Strontium alloys, pyrophoric | 23 | 1383 |
| STRONTIUM ARSENITE | 34 | 1691 |
| STRONTIUM CHLORATE | 31 | 1506 |
| Strontium dioxide | 31 | 1509 |
| STRONTIUM NITRATE | 31 | 1507 |
| STRONTIUM PERCHLORATE | 31 | 1508 |
| STRONTIUM PEROXIDE | 31 | 1509 |
| STRONTIUM PHOSPHIDE | 27 | 2013 |
| STRYCHNINE | 34 | 1692 |
| STRYCHNINE SALTS | 34 | 1692 |
| STYPHNIC ACID | 02 | 0219 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| STYPHNIC ACID | 02 | 0394 |
| STYRENE MONOMER, STABILIZED | 19P | 2055 |
| SUBSTANCES, EVI, N.O.S. | 02 | 0482 |
| SUBSTANCES, EXPLOSIVE, N.O.S. | 02 | 0357 |
| SUBSTANCES, EXPLOSIVE, N.O.S. | 02 | 0358 |
| SUBSTANCES, EXPLOSIVE, N.O.S. | 02 | 0359 |
| SUBSTANCES, EXPLOSIVE, N.O.S. | 02 | 0473 |
| SUBSTANCES, EXPLOSIVE, N.O.S. | 02 | 0474 |
| SUBSTANCES, EXPLOSIVE, N.O.S. | 02 | 0475 |
| SUBSTANCES, EXPLOSIVE, N.O.S. | 02 | 0476 |
| SUBSTANCES, EXPLOSIVE, N.O.S. | 02 | 0477 |
| SUBSTANCES, EXPLOSIVE, N.O.S. | 02 | 0478 |
| SUBSTANCES, EXPLOSIVE, N.O.S. | 03 | 0479 |
| SUBSTANCES, EXPLOSIVE, N.O.S. | 03 | 0480 |
| SUBSTANCES, EXPLOSIVE, N.O.S. | 03 | 0481 |
| SUBSTANCES, EXPLOSIVE, N.O.S. | 03 | 0485 |
| SUBSTANCES, EXPLOSIVE, VERY INSENSITIVE, N.O.S. | 02 | 0482 |
| Substances liable to spontaneous combustion, n.o.s. | 23 | 2845 |
| Substances liable to spontaneous combustion, n.o.s. | 23 | 2846 |
| Substances liable to spontaneous combustion, n.o.s. | 23 | 3194 |
| Substances liable to spontaneous combustion, n.o.s. | 23 | 3200 |
| SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, FLAMMABLE, TOXIC, flashpoint less than 23°C | 18 | 2780 |
| SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC | 36 | 3014 |
| SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flashpoint not less than 23°C | 19 | 3013 |
| SUBSTITUTED NITROPHENOL PESTICIDE, SOLID, TOXIC | 36 | 2779 |
| SULPHAMIC ACID | 37 | 2967 |
| SULPHUR | 20 | 1350 |
| SULPHUR CHLORIDES | 39 | 1828 |
| Sulphur dichloride | 39 | 1828 |
| SULPHUR DIOXIDE | 07 | 1079 |
| SULPHUR HEXAFLUORIDE | 06 | 1080 |
| SULPHURIC ACID with more than 51% acid | 40 | 1830 |
| SULPHURIC ACID with not more than 51% acid or BATTERY FLUID, ACID | 37 | 2796 |
| SULPHURIC ACID, FUMING | 40 | 1831 |
| SULPHURIC ACID, SPENT | 40 | 1832 |
| Sulphuric and hydrofluoric acid mixture | 40 | 1786 |
| SULPHUR, MOLTEN | 20 | 2448 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Suphur monochloride | 39 | 1828 |
| SULPHUROUS ACID | 37 | 1833 |
| SULPHUR TETRAFLUORIDE | 07 | 2418 |
| SULPHUR TRIOXIDE, STABILIZED | 40 | 1829 |
| SULPHURYL CHLORIDE | 40 | 1834 |
| SULPHURYL FLUORIDE | 07 | 2191 |
| Tabun | 36 | 2810 |
| Talcum with tremolite and/or actinolite | 47 | 2590 |
| TARS, LIQUID, including road asphalt and oils, bitumen and cut backs | 16 | 1999 |
| Tartar emetic | 34 | 1551 |
| TEAR GAS CANDLES | 36 | 1700 |
| Tear gas grenades | 36 | 1700 |
| TEAR GAS SUBSTANCE, LIQUID, N.O.S. | 36 | 1693 |
| TEAR GAS SUBSTANCE, SOLID, N.O.S. | 36 | 3448 |
| TELLURIUM COMPOUND, N.O.S. | 34 | 3284 |
| TELLURIUM HEXAFLUORIDE | 07 | 2195 |
| TERPENE HYDROCARBONS, N.O.S. | 15 | 2319 |
| TERPINOLENE | 15 | 2541 |
| TETRABROMOETHANE | 34 | 2504 |
| 1,1,2,2-TETRACHLOROETHANE | 34 | 1702 |
| TETRACHLOROETHYLENE | 37 | 1897 |
| TETRAETHYL DITHIOPYROPHOSPHATE | 36 | 1704 |
| TETRAETHYL DITHIOPYROPHOSPHATE AND GASES, INCLUDING SOLUTIONS or MIXTURES | 07 | 1703* |
| TETRAETHYLENEPENTAMINE | 36 | 2320 |
| Tetraethyl lead | 16D | 1649 |
| TETRAETHYL PYROPHOSPHATE AND GAS MIXTURES, COMPRESSED | 07 | 1705* |
| TETRAETHYL SILICATE | 19 | 1292 |
| Tetraethoxysilane | 19 | 1292 |
| Tetrafluorodichloroethane | 19 | 1292 |
| 1,1,1,2-TETRAFLUOROETHANE (REFRIGERANT GAS R 134a) | 06 | 3159 |
| TETRAFLUOROETHYLENE, STABILIZED | 04P | 1081 |
| TETRAFLUOROMETHANE, (REFRIGERANT GAS R 14) | 06 | 1982 |
| 1,2,3,6-TETRAHYDROBENZALDEHYDE | 19 | 2498 |
| TETRAHYDROFURAN | 14D | 2056 |
| TETRAHYDROFURFURYLAMINE | 17 | 2943 |
| Tetrahydro-1,4-oxazine | 19 | 2054 |
| TETRAHYDROPHTHALIC ANHYDRIDES with more than 0.05% of maleic anhydride | 39 | 2698 |
| 1,2,3,6-TETRAHYDROPYRIDINE | 18 | 2410 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| TETRAHYDROTHIOPHENE | 16 | 2412 |
| TETRALIN HYDROPEROXIDE | 32 | 2136* |
| Tetramethoxysilane | 38 | 2606 |
| TETRAMETHYLAMMONIUM HYDROXIDE, SOLUTION | 36 | 1835 |
| TETRAMETHYLAMMONIUM HYDROXIDE, SOLID | 36 | 3423 |
| 1,1,3,3-TETRAMETHYLBUTYL HYDROPEROXIDE | 32 | 2160* |
| 1,1,3,3-TETRAMETHYLBUTYL PEROXY-2-ETHYLHEXANOATE | 33 | 2161* |
| Tetramethylene | 04 | 2601 |
| Tetramethylene cyanide | 36 | 2205 |
| Tetramethyl lead | 16D | 1649 |
| TETRAMETHYLSILANE | 16 | 2749 |
| TETRANITROANILINE | 02 | 0207 |
| TETRANITROMETHANE | 31 | 1510 |
| TETRAPROPYL ORTHOTITANATE | 38 | 2413 |
| TETRAZENE, WETTED | 02 | 0114 |
| TETRAZOL-1-ACETIC ACID | 03 | 0407 |
| 1H-TETRAZOLE | 02 | 0504 |
| TETRYL | 02 | 0208 |
| TEXTILE WASTE, WET | 23 | 1857 |
| THALLIUM CHLORATE | 31 | 2573 |
| Thallium (I) chlorate | 31 | 2573 |
| THALLIUM COMPOUND, N.O.S. | 34 | 1707 |
| THALLIUM NITRATE | 31 | 2727 |
| Thallium (I) nitrate | 31 | 2727 |
| Thallous chlorate | 31 | 2573 |
| 4-THIAPENTANAL | 19 | 2785 |
| Thia-4-pentanal | 19 | 2785 |
| Thickened GD | 36 | 2810 |
| THINNERS | 14 | 1263 |
| THINNERS | 36 | 3066 |
| THIOACETIC ACID | 18 | 2436 |
| THIOCARBAMATE PESTICIDE, LIQUID, FLAMMABLE, TOXIC, flashpoint less than 23°C | 16 | 2772 |
| THIOCARBAMATE PESTICIDE, LIQUID, TOXIC | 34 | 3006 |
| THIOCARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flashpoint not less than 23°C | 17 | 3005 |
| THIOCARBAMATE PESTICIDE, SOLID, TOXIC | 34 | 2771 |
| THIOGLYCOL | 36 | 2966 |
| THIOGLYCOLIC ACID | 36 | 1940 |
| THIOLACTIC ACID | 36 | 2936 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| THIONYL CHLORIDE | 40 | 1836 |
| THIOPHENE | 16 | 2414 |
| Thiophenol | 16 | 2337 |
| THIOPHOSGENE | 40 | 2474 |
| THIOPHOSPHORYL CHLORIDE | 40 | 1837 |
| THIOUREA | 36 | 2877* |
| THIOUREA DIOXIDE | 25 | 3341 |
| THORIUM METAL, PYROPHORIC | 45 | 2975* |
| THORIUM NITRATE, SOLID | 44 | 2976* |
| Tin (IV) chloride, anhydrous | 40 | 1827 |
| Tin (IV) chloride pentahydrate | 37 | 2440 |
| TINCTURES, MEDICINAL | 14 | 1293 |
| Tin tetrachloride | 40 | 1827 |
| TITANIUM DISULPHIDE | 23 | 3174 |
| TITANIUM HYDRIDE | 29 | 1871 |
| TITANIUM POWDER, DRY | 25 | 2546 |
| TITANIUM POWDER, WETTED with not less than 25% water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced particle size less than 840 microns | 29 | 1352 |
| TITANIUM SPONGE GRANULES | 29 | 2878 |
| TITANIUM SPONGE POWDERS | 29 | 2878 |
| Titanium sulphate, solution | 37 | 1760 |
| TITANIUM TETRACHLORIDE | 40 | 1838 |
| TITANIUM TRICHLORIDE MIXTURE | 40 | 2869 |
| TITANIUM TRICHLORIDE MIXTURE, PYROPHORIC | 25 | 2441 |
| TITANIUM TRICHLORIDE, PYROPHORIC | 25 | 2441 |
| TNT | 02 | 0209 |
| TNT | 02 | 0388 |
| TNT | 02 | 0389 |
| TNT, WETTED | 52 | 1356 |
| TNT, WETTED | 52 | 3366 |
| TNT mixed with aluminium | 02 | 0390 |
| Toe puffs, nitrocellulose base | 20 | 1353 |
| TOLUENE | 16 | 1294 |
| TOLUENE DIISOCYANATE | 39 | 2078 |
| TOLUIDINES, LIQUID | 36 | 1708 |
| TOLUIDINES, SOLID | 36 | 3451 |
| Toluol | 16 | 1294 |
| 2,4-TOLUYLENEDIAMINE, SOLID | 36 | 1709 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| 2,4-TOLUYLENEDIAMINE SOLUTION | 36 | 3418 |
| Toluylene diisocyanate | 39 | 2078 |
| Tolylene diisocyanate | 39 | 2078 |
| Tolylethylene, inhibited | 17P | 2618 |
| TORPEDOES with bursting charge | 02 | 0329 |
| TORPEDOES with bursting charge | 02 | 0330 |
| TORPEDOES with bursting charge | 02 | 0451 |
| TORPEDOES, LIQUID FUELLED with inert head | 02 | 0450 |
| TORPEDOES, LIQUID FUELLED with or without bursting charge | 02 | 0449 |
| TOXIC BY INHALATION LIQUID, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/m$^3$ and saturated vapour concentration greater than or equal to 500 LC50 | 34 | 3381 |
| TOXIC BY INHALATION LIQUID, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/m$^3$ and saturated vapour concentration greater than or equal to 10 LC50 | 34 | 3382 |
| TOXIC BY INHALATION LIQUID, CORROSIVE, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/m$^3$ and saturated vapour concentration greater than or equal to 500 LC50 | 37 | 3389 |
| TOXIC BY INHALATION LIQUID, CORROSIVE, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/m$^3$ and saturated vapour concentration greater than or equal to 10 LC50 | 37 | 3390 |
| TOXIC BY INHALATION LIQUID, CORROSIVE, FLAMMABLE, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/m$^3$ and saturated vapour concentration greater than or equal to 500 LC50 | 36 | 3492† |
| TOXIC BY INHALATION LIQUID, CORROSIVE, FLAMMABLE, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/m$^3$ and saturated vapour concentration greater than or equal to 10 LC50 | 36 | 3493† |
| TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/m$^3$ and saturated vapour concentration greater than or equal to 500 LC50 | 35 | 3383 |
| TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/m$^3$ and saturated vapour concentration greater than or equal to 10 LC50 | 35 | 3384 |
| TOXIC BY INHALATION LIQUID, FLAMMABLE, CORROSIVE, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/m$^3$ and saturated vapour concentration greater than or equal to 500 LC50 | 36 | 3488† |
| TOXIC BY INHALATION LIQUID, FLAMMABLE, CORROSIVE, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/m$^3$ and saturated vapour concentration greater than or equal to 10 LC50 | 36 | 3489† |
| TOXIC BY INHALATION LIQUID, OXIDIZING, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/m$^3$ and saturated vapour concentration greater than or equal to 500 LC50 | 34 | 3387 |
| TOXIC BY INHALATION LIQUID, OXIDIZING, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/m$^3$ and saturated vapour concentration greater than or equal to 10 LC50 | 34 | 3388 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| TOXIC BY INHALATION LIQUID, WATER-REACTIVE, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/m³ and saturated vapour concentration greater than or equal to 500 LC50 | 40 | 3385 |
| TOXIC BY INHALATION LIQUID, WATER-REACTIVE, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/m³ and saturated vapour concentration greater than or equal to 10 LC50 | 40 | 3386 |
| TOXIC BY INHALATION LIQUID, WATER-REACTIVE, FLAMMABLE, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/m³ and saturated vapour concentration greater than or equal to 500 LC50 | 39 | 3490† |
| TOXIC BY INHALATION LIQUID, WATER-REACTIVE, FLAMMABLE, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/m³ and saturated vapour concentration greater than or equal to 10 LC50 | 39 | 3491† |
| TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S. | 37 | 3289 |
| TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. | 36 | 2927 |
| TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S. | 17 | 2929 |
| TOXIC LIQUID, INORGANIC, N.O.S. | 34 | 3287 |
| TOXIC LIQUID, ORGANIC, N.O.S. | 36 | 2810 |
| TOXIC LIQUID, OXIDIZING, N.O.S. | 31 | 3122 |
| TOXIC LIQUID, WATER-REACTIVE, N.O.S. | 26 | 3123 |
| TOXIC SOLID, CORROSIVE, INORGANIC, N.O.S. | 37 | 3290 |
| TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S. | 36 | 2928 |
| TOXIC SOLID, FLAMMABLE, ORGANIC, N.O.S. | 20 | 2930 |
| TOXIC SOLID, INORGANIC, N.O.S. | 34 | 3288 |
| TOXIC SOLID, ORGANIC, N.O.S. | 36 | 2811 |
| TOXIC SOLID, OXIDIZING, N.O.S. | 31 | 3086 |
| TOXIC SOLID, SELF-HEATING, N.O.S. | 23 | 3124 |
| TOXIC SOLID, WATER-REACTIVE, N.O.S. | 26 | 3125 |
| TOXINS, EXTRACTED FROM LIVING SOURCES, LIQUID, N.O.S. | 36 | 3172 |
| TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. | 36 | 3462 |
| TRACERS FOR AMMUNITION | 02 | 0212 |
| TRACERS FOR AMMUNITION | 03 | 0306 |
| Tremolite | 47 | 2590 |
| TRIALLYLAMINE | 19 | 2610 |
| TRIALLYL BORATE | 39 | 2609 |
| TRIAZINE PESTICIDE, LIQUID, FLAMMABLE, TOXIC, flashpoint less than 23°C | 16 | 2764 |
| TRIAZINE PESTICIDE, LIQUID, TOXIC | 34 | 2998 |
| TRIAZINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flashpoint not less than 23°C | 17 | 2997 |
| TRIAZINE PESTICIDE, SOLID, TOXIC | 34 | 2763 |
| Tribromoborane | 40 | 2692 |
| TRIBUTYLAMINE | 36 | 2542 |
| TRIBUTYLPHOSPHANE | 25 | 3254 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| Trichloroacetaldehyde | 36 | 2075 |
| TRICHLOROACETIC ACID | 36 | 1839 |
| TRICHLOROACETIC ACID SOLUTION | 36 | 2564 |
| Trichloroaceticaldehyde | 36 | 2075 |
| TRICHLOROACETYL CHLORIDE | 39 | 2442 |
| TRICHLOROBENZENES, LIQUID | 36 | 2321 |
| TRICHLOROBUTENE | 35 | 2322 |
| 1,1,1-TRICHLOROETHANE | 34 | 2831 |
| TRICHLOROETHYLENE | 37 | 1710 |
| TRICHLOROISOCYANURIC ACID, DRY | 31 | 2468 |
| Trichloronitromethane | 37D | 1580 |
| TRICHLOROSILANE | 27 | 1295 |
| 1,3,5-Trichloro-s-triazine-2,4,6-trione | 31 | 2468 |
| 2,4,6-Trichloro-1,3,5-triazine | 40 | 2670 |
| TRICRESYL PHOSPHATE with more than 3% ortho isomer | 34 | 2574 |
| TRIETHYLAMINE | 18 | 1296 |
| Triethyl borate | 38 | 1176 |
| TRIETHYLENE DIAMINE | 36 | 2675* |
| TRIETHYLENETETRAMINE | 36 | 2259 |
| Triethyl orthoformate | 19 | 2524 |
| TRIETHYL PHOSPHITE | 39 | 2323 |
| TRIFLUOROACETIC ACID | 37 | 2699 |
| TRIFLUOROACETYL CHLORIDE | 07 | 3057 |
| Trifluorobromomethane | 06 | 1009 |
| Trifluorochloroethane | 06 | 1983 |
| TRIFLUOROCHLOROETHYLENE, STABILIZED | 04P | 1082 |
| Trifluorochloromethane | 06 | 1022 |
| 1,1,1-TRIFLUOROETHANE (REFRIGERANT GAS R 143a) | 06 | 2035 |
| TRIFLUOROMETHANE (REFRIGERANT GAS R 23) | 06 | 1984 |
| TRIFLUOROMETHANE, REFRIGERATED LIQUID | 06 | 3136 |
| 2-TRIFLUOROMETHYLANILINE | 36 | 2942 |
| 3-TRIFLUOROMETHYLANILINE | 36 | 2948 |
| TRI-iso-BUTYL ALUMINIUM | 25 | 1930* |
| TRIISOBUTYLENE | 15 | 2324 |
| TRIISOCYANATOISOCYANURATE OF ISOPHORONEDIISOCYANATE, SOLUTION | 15 | 2906* |
| TRIISOPROPYL BORATE | 15 | 2616 |
| TRIMETHYLACETYL CHLORIDE | 38 | 2438 |
| TRIMETHYLAMINE, ANHYDROUS | 05 | 1083 |
| TRIMETHYLAMINE, AQUEOUS SOLUTION, not more than 50% trimethylamine, by mass | 19 | 1297 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| 1,3,5-TRIMETHYLBENZENE | 17 | 2325 |
| TRIMETHYL BORATE | 38 | 2416 |
| TRIMETHYLCHLOROSILANE | 25 | 1298 |
| TRIMETHYLCYCLOHEXYLAMINE | 36 | 2326 |
| Trimethylene chlorobromide | 34 | 2688 |
| TRIMETHYLHEXAMETHYLENEDIAMINES | 36 | 2327 |
| TRIMETHYLHEXAMETHYLENE DIISOCYANATE | 39 | 2328 |
| 2,4,4-Trimethylpentene-1 | 14 | 2050 |
| 2,4,4-Trimethylpentene-2 | 14 | 2050 |
| 2,4,4-TRIMETHYLPENTYL-2-PEROXY PHENOXY ACETATE | 33 | 2961* |
| TRIMETHYL PHOSPHITE | 27 | 2329 |
| TRINITROANILINE (PICRAMIDE) | 02 | 0153 |
| TRINITROANISOLE | 02 | 0213 |
| TRINITROBENZENE, dry or wetted with less than 30% water, by mass | 02 | 0214 |
| TRINITROBENZENE, WETTED with not less than 10% water by mass | 52 | 3367 |
| TRINITROBENZENE, WETTED with not less than 30% water, by mass | 52 | 1354 |
| TRINITROBENZENESULPHONIC ACID | 02 | 0386 |
| TRINITROBENZOIC ACID, dry or wetted with less than 30% water, by mass | 02 | 0215 |
| TRINITROBENZOIC ACID, WETTED with not less than 10% water by mass | 52 | 3368 |
| TRINITROBENZOIC ACID, WETTED with not less than 30% water, by mass | 52 | 1355 |
| TRINITROCHLOROBENZENE (PICRYL CHLORIDE) | 02 | 0155 |
| TRINITROCHLOROBENZENE (PICRYL CHLORIDE), WETTED with not less than 10% water by mass | 52 | 3365 |
| TRINITRO-m-CRESOL | 02 | 0216 |
| TRINITROFLUORENONE | 02 | 0387 |
| TRINITRONAPHTHALENE | 02 | 0217 |
| TRINITROPHENETOLE | 02 | 0218 |
| TRINITROPHENOL (PICRIC ACID), dry or wetted with less than 30% water, by mass | 02 | 0154 |
| TRINITROPHENOL (PICRIC ACID), WETTED with not less than 10% water by mass | 52 | 3364 |
| TRINITROPHENOL (PICRIC ACID), WETTED with not less than 30% water, by mass | 52 | 1344 |
| TRINITROPHENYLMETHYLNITRAMINE (TETRYL) | 02 | 0208 |
| TRINITRORESORCINOL (STYPHNIC ACID), dry or wetted with less than 20% water, or mixture of alcohol and water, by mass | 02 | 0219 |
| TRINITRORESORCINOL (STYPHNIC ACID), WETTED with not less than 20% water, or mixture of water and alcohol, by mass | 02 | 0394 |
| TRINITROTOLUENE (TNT), dry or wetted with less than 30% water, by mass | 02 | 0209 |
| TRINITROTOLUENE (TNT) AND HEXANITROSTILBENE MIXTURE | 02 | 0388 |
| TRINITROTOLUENE (TNT) AND TRINITROBENZENE MIXTURE | 02 | 0388 |
| TRINITROTOLUENE (TNT) MIXTURE CONTAINING TRINITROBENZENE AND HEXANITROSTILBENE | 02 | 0389 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| TRINITROTOLUENE (TNT), WETTED with not less than 10% water by mass | 52 | 3366 |
| TRINITROTOLUENE (TNT), WETTED with not less than 30% water, by mass | 52 | 1356 |
| TRIPROPYL ALUMINIUM | 25 | 2718* |
| TRIPROPYLAMINE | 19 | 2260 |
| TRIPROPYLENE | 14 | 2057 |
| TRIS-(1-AZIRIDINYL) PHOSPHINE OXIDE SOLUTION | 35 | 2501 |
| TRITONAL | 02 | 0390 |
| Tropilidene | 17 | 2603 |
| TUNGSTEN HEXAFLUORIDE | 07 | 2196 |
| TURPENTINE | 15 | 1299 |
| TURPENTINE SUBSTITUTE | 14 | 1300 |
| UNDECANE | 15 | 2330 |
| URANIUM METAL, PYROPHORIC | 45 | 2979* |
| URANYL NITRATE HEXAHYDRATE SOLUTION | 42 | 2980* |
| URANYL NITRATE, SOLID | 44 | 2981* |
| UREA HYDROGEN PEROXIDE | 31 | 1511 |
| UREA NITRATE, dry or wetted with less than 20% water, by mass | 02 | 0220 |
| UREA NITRATE, WETTED with not less than 20% water, by mass | 52 | 1357 |
| UREA NITRATE, WETTED with not less than 10% water by mass | 52 | 3370 |
| Valeral | 18 | 2058 |
| VALERALDEHYDE | 18 | 2058 |
| n-Valeraldehyde | 18 | 2058 |
| Valeric anhydride | 18 | 2058 |
| VALERYL CHLORIDE | 38 | 2502 |
| VANADIUM COMPOUND, N.O.S. | 34 | 3285 |
| VANADIUM COMPOUNDS, N.O.S. | 34 | 2575* |
| Vanadium (IV) oxide sulphate | 34 | 2931 |
| Vanadium oxysulphate | 34 | 2931 |
| VANADIUM OXYTRICHLORIDE | 40 | 2443 |
| VANADIUM PENTOXIDE, non-fused form | 34 | 2862 |
| VANADIUM TETRACHLORIDE | 40 | 2444 |
| VANADIUM TRICHLORIDE | 40 | 2475 |
| VANADIUM TRIOXIDE | 37 | 2860* |
| VANADYL SULPHATE | 34 | 2931 |
| VARNISH | 14 | 1263 |
| VARNISH | 36 | 3066 |
| VARNISH (Aust) | 14 | 1263 |
| VARNISH (Aust) | 36 | 3066 |
| VEHICLE, FLAMMABLE GAS POWERED | 14 | 3166 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| VEHICLE, FLAMMABLE LIQUID POWERED | 14 | 3166 |
| VEHICLE, FUEL CELL, FLAMMABLE GAS POWERED | 14 | 3166 |
| VEHICLE, FUEL CELL, FLAMMABLE LIQUID POWERED | 14 | 3166 |
| Villaumite | 19P | 2055 |
| VINYL ACETATE, STABILIZED | 18P | 1301 |
| Vinylbenzene | 19P | 2055 |
| VINYL BROMIDE, STABILIZED | 04P | 1085 |
| VINYL BUTYRATE, STABILIZED | 18P | 2838 |
| VINYL CHLORIDE, STABILIZED | 04P | 1086 |
| VINYL CHLOROACETATE | 39 | 2589 |
| VINYL ETHYL ETHER, STABILIZED | 14P | 1302 |
| VINYL FLUORIDE, STABILIZED | 04P | 1860 |
| VINYLIDENE CHLORIDE, STABILIZED | 18P | 1303 |
| VINYL ISOBUTYL ETHER, STABILIZED | 14P | 1304 |
| VINYL METHYL ETHER, STABILIZED | 04P | 1087 |
| VINYLPYRIDINES, STABILIZED | 18P | 3073 |
| VINYLTOLUENES, STABILIZED | 17P | 2618 |
| VINYLTRICHLOROSILANE, STABILIZED | 25D | 1305 |
| VX | 36 | 2810 |
| Warheads for guided missiles | 02 | 0286 |
| Warheads for guided missiles | 02 | 0369 |
| Warheads for guided missiles | 02 | 0287 |
| Warheads for guided missiles | 03 | 0370 |
| Warheads for guided missiles | 03 | 0371 |
| WARHEADS, ROCKET with burster or expelling charge | 02 | 0370 |
| WARHEADS, ROCKET with burster or expelling charge | 02 | 0371 |
| WARHEADS, ROCKET with bursting charge | 02 | 0286 |
| WARHEADS, ROCKET with bursting charge | 03 | 0287 |
| WARHEADS, ROCKET with bursting charge | 03 | 0369 |
| WARHEADS, TORPEDO with bursting charge | 02 | 0221 |
| WATER-REACTIVE LIQUID, N.O.S. | 26 | 3148 |
| WATER-REACTIVE LIQUID, CORROSIVE, N.O.S. | 26 | 3129 |
| WATER-REACTIVE LIQUID, TOXIC, N.O.S. | 26 | 3130 |
| WATER-REACTIVE SOLID, N.O.S. | 26 | 2813 |
| WATER-REACTIVE SOLID, CORROSIVE, N.O.S. | 26 | 3131 |
| WATER-REACTIVE SOLID, FLAMMABLE, N.O.S. | 26 | 3132 |
| WATER-REACTIVE SOLID, OXIDIZING, N.O.S. | 26 | 3133 |
| WATER-REACTIVE SOLID, SELF-HEATING, N.O.S. | 26 | 3135 |
| WATER-REACTIVE SOLID, TOXIC, N.O.S. | 26 | 3134 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| White arsenic | 34 | 1561 |
| WHITE ASBESTOS (chrysotile, actinolite, anthophyllite, tremolite) | 47 | 2590 |
| White phosphorus, dry or in solution | 24 | 1381 |
| White spirit | 14 | 1300 |
| WOOD PRESERVATIVES, LIQUID | 18 | 1306 |
| WOOL WASTE, WET | 23 | 1387 |
| XANTHATES | 25 | 3342 |
| XENON | 08 | 2036 |
| XENON, REFRIGERATED LIQUID | 08 | 2591 |
| XYLENES | 16 | 1307 |
| XYLENOLS, SOLID | 36 | 2261 |
| XYLENOLS, LIQUID | 36 | 3430 |
| XYLIDINES, LIQUID | 37 | 1711 |
| XYLIDINES, SOLID | 37 | 3452 |
| Xylols | 16 | 1307 |
| XYLYL BROMIDE, LIQUID | 35 | 1701 |
| XYLYL BROMIDE, SOLID | 35 | 3417 |
| Yellow phosphorus, dry or in solution | 24 | 1381 |
| ZINC AMMONIUM NITRITE | 31 | 1512 |
| ZINC ARSENATE | 34 | 1712 |
| ZINC ARSENITE AND ZINC ARSENITE MIXTURE | 34 | 1712 |
| ZINC ARSENITE | 34 | 1712 |
| ZINC ASHES | 26 | 1435 |
| Zinc bisulphite solution | 37 | 2693 |
| ZINC BROMATE | 31 | 2469 |
| ZINC CHLORATE | 31 | 1513 |
| ZINC CHLORIDE, ANHYDROUS | 37 | 2331 |
| ZINC CHLORIDE SOLUTION | 37 | 1840 |
| ZINC CYANIDE | 34 | 1713 |
| ZINC DITHIONITE (ZINC HYDROSULPHITE) | 25 | 1931 |
| ZINC DUST | 26 | 1436 |
| ZINC FLUOROSILICATE | 37 | 2855 |
| Zinc hexafluorosilicate | 37 | 2855 |
| ZINC HYDROSULPHITE | 25 | 1931 |
| ZINC NITRATE | 31 | 1514 |
| ZINC PERMANGANATE | 31 | 1515 |
| ZINC PEROXIDE | 31 | 1516 |
| ZINC PHOSPHIDE | 27 | 1714 |
| ZINC POWDER | 26 | 1436 |

| PROPER SHIPPING NAME – TECHNICAL NAME | GUIDE | UN |
|---|---|---|
| ZINC RESINATE | 20 | 2714 |
| Zinc selenate | 34 | 2630 |
| Zinc selenite | 34 | 2630 |
| Zinc silicofluoride | 37 | 2855 |
| ZIRCONIUM, DRY, coiled wire, finished metal sheets, strip (thinner than 254 microns but not thinner than 18 microns) | 29 | 2858 |
| ZIRCONIUM, DRY, finished sheets, strip or coiled wire | 25 | 2009 |
| ZIRCONIUM HYDRIDE | 29 | 1437 |
| ZIRCONIUM NITRATE | 31 | 2728 |
| ZIRCONIUM PICRAMATE, dry or wetted with less than 20% water, by mass | 02 | 0236 |
| ZIRCONIUM PICRAMATE, WETTED with not less than 20% water, by mass | 52 | 1517 |
| ZIRCONIUM POWDER, DRY | 25 | 2008 |
| ZIRCONIUM POWDER, WETTED with not less than 25% water (a visible excess of water must be present) (a) mechanically produced, particles size less than 53 microns; (b) chemically produced particle size less than 840 microns | 29 | 1358 |
| ZIRCONIUM SCRAP | 25 | 1932 |
| ZIRCONIUM SUSPENDED IN A FLAMMABLE LIQUID | 14 | 1308 |
| ZIRCONIUM TETRACHLORIDE | 40 | 2503 |

# NOTES

# 13. GUIDES

## GUIDE 00 | VEHICLE FIRE

**TO BE USED ONLY IF A FIRE BREAKS OUT IN THE VEHICLE ITSELF OR IN ANY NON-DANGEROUS GOODS IN THE LOAD**

### HAZARDS

| | |
|---|---|
| **Fire or explosion** | • Fire may produce irritating, toxic, or corrosive gases. |
| **Health** | • Runoff from fire control water may pollute waterways.<br>• Burning upholstery may emit toxic fumes. |

### PUBLIC SAFETY

| | |
|---|---|
| | • Eliminate all ignition sources.<br>• Keep unauthorised personnel away.<br>• Keep upwind and to higher ground. |
| **Evacuation** | • Consider initial evacuation of areas within 200 m in all directions.<br>• If unable to control fire, evacuate immediate area.<br>• Keep upwind and to higher ground.<br>• Contact police or fire brigade (SEE INSIDE BACK COVER).<br>• Warn other traffic.<br>• Separate prime mover if safe to do so. |

### EMERGENCY RESPONSE

| | |
|---|---|
| **Engine fire** | • Shut off engine and any electrical equipment and leave off.<br>• Use fire extinguisher provided in vehicle. Direct contents through any available opening, without raising the bonnet if possible.<br>• If necessary, extinguish the fire with sand, earth or large amounts of water. |
| **Cabin fire** | • Shut off engine and any electrical equipment and leave off.<br>• Remove burning materials if safe to do so.<br>• Use fire extinguisher provided in vehicle.<br>• If necessary, extinguish fire with sand, earth or large amounts of water. |

| GUIDE 00 | VEHICLE FIRE |
|---|---|
| **Tray fire** | • Shut off engine and any electrical equipment and leave off.<br>• Refer to the guide for the substances involved.<br>• Use fire extinguisher provided in vehicle.<br>• If necessary, extinguish fire with sand, earth or large amounts of water.<br>• If safe to do so, move undamaged containers or packages from fire area.<br>• Cool containers with flooding quantities of water until well after fire is out. |
| **Tyre fire** | • Stop vehicle – assess fire in relation to load and its hazards.<br>• Flood tyre with plenty of water – if water is not available, use fire extinguisher provided in vehicle, earth or sand.<br>• If safe to do so, change tyre and place it at least 15 m from vehicle in an area away from combustible materials: tyre may reignite – stand by with an extinguisher ready.<br>• If tyre cannot be removed, or fire cannot be extinguished, and if safe to do so, separate the prime mover from the trailer/s and move to a safe place nearby. |
| **Brake overheating** | • Stop vehicle. Assess fire, if any, in relation to load and its hazards.<br>• Allow brake to cool.<br>• **Use extinguisher or water only if there is a fire or immediate danger of fire.**<br>• Do not drive vehicle until the brakes have been inspected by a competent person and, if necessary, repaired. |
| **First aid** | • Remove victim to fresh air.<br>• Apply resuscitation if victim is not breathing – administer oxygen if breathing is difficult.<br>• Keep victim warm and quiet.<br>• Obtain immediate medical care. |

## GUIDE 01 | UNIDENTIFIED PACKAGE OR CARGO

**TO BE USED ONLY IF THE SUBSTANCES ARE SUSPECTED OF BEING DANGEROUS GOODS AND CANNOT BE IDENTIFIED BY SHIPPING NAME, UN NUMBER, LABEL OR PLACARD, OR FROM INFORMATION FROM THE CARRIER**

### HAZARDS

**Fire or explosion**

- May explode from heat, shock, friction or contamination.
- May react vigorously or explosively with air, water or foam.
- May ignite when exposed to air – May be ignited by friction, heat, sparks or flames.
- Vapours may travel to source of ignition and flash back.
- Containers may explode when heated – ruptured cylinders may rocket.
- Fire or contact with water may produce irritating, toxic, and/or corrosive gases.

**Health**

- Inhalation, ingestion or contact with substance may cause severe injury, irritation, infection, disease or death.
- High concentration of gas may cause asphyxiation without warning.
- Contact of vapour or substance with eyes may cause blindness within minutes.
- Runoff from fire control water may pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform will provide limited protection.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER) OR TRANSPORT COMPANY.**
- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Eliminate all ignition sources.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 300 m.

**Fire**

- When any large containers (including road and rail tankers) are involved in a spill or fire, consider initial evacuation of areas within 500 m in all directions.

## GUIDE 01 | UNIDENTIFIED PACKAGE OR CARGO

### EMERGENCY RESPONSE

**Fire**

- **DO NOT USE WATER OR FOAM UNLESS ADVISED TO DO SO.**
- When a large quantity of this material is involved in a major fire, and water has to be used, evacuate for at least 250 m.
- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame) in immediate area – All equipment used when handling the product must be earthed.
- Do not touch or walk through spilled material.
- Keep combustibles (wood, paper, clothing, oil, and so on) away from spilled material.
- AVOID GETTING WATER INSIDE CONTAINERS.
- Use water spray, fog or vapour-suppressing foam to knock down vapours or divert vapour clouds.
- Prevent entry into waterways, drains, basements or confined areas.
- Call for assistance on handling and disposal.

**First aid**

- Remove victim to fresh air.
- Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Shower and wash with soap and water.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Obtain immediate medical care.

## GUIDE 02 EXPLOSIVE SUBSTANCES* DIVISIONS 1.1, 1.2, 1.3, 1.5 OR 1.6

### HAZARDS

**Fire or explosion**

- When subjected to heat, shock or friction, explosives of Division –
  1.1 or 1.5 will burn and may detonate IN A MASS EXPLOSION at any time;
  1.2 may burn and may detonate with PROJECTION of fragments;
  1.3 may burn VIOLENTLY; and
  1.6 demonstrate a negligible probability of accidental initiation or propagation. The risk is limited to a single article.
- Products of other Classes covered by Guide 02 should be considered to behave similarly to a Division 1.1 explosive unless advised differently by a specialist.
- Fire may produce irritating, toxic, and/or corrosive gases.

**Health**

- These substances may be toxic and corrosive.

### PROTECTIVE CLOTHING

- For fires structural firefighting uniform and SCBA is required.

### PUBLIC SAFETY

**Evacuation**

- **IIMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- In Australia, tell them 'Security Sensitive Explosive substances are involved in the incident'.
- Hazard area – initial minimum evacuation distances in all directions:

| Net Explosive Quantity (NEQ) | Division 1.1, 1.2, 1.5 | Division 1.3 | Division 1.6 |
|---|---|---|---|
| Up to 1,000 kg | 400 m | 100 m | 400 m |
| 1,000 – 5,000 kg | 600 m | 200 m | 400 m |
| 5,000 – 20,000 kg | 800 m | 300 m | 400 m |
| Over 20,000 kg | 1,000 m | 400 m | 400 m |

- Use terrain or buildings for shielding.
- Stay clear of windows.

*** Compatibility Groups**

| | |
|---|---|
| A, B | Substances and articles that are expected to explode or detonate in a mass explosion very soon after fire reaches them |
| C, J | Substances and articles that are readily ignited and burn violently without necessarily exploding |
| D, E, F | Substances and articles that may explode in a mass explosion accompanied by a blast and fragmentation hazard, but may be exposed to fire for some time before exploding |

*(continued on opposite page)*

## EMERGENCY RESPONSE

### Fire

**Cargo fires**

- **Do not** fight fire when fire reaches cargo! Cargo may EXPLODE!
- Stop all traffic and clear the area for at least 1600 m in all directions and let burn.
- **Do not** move cargo or vehicle if cargo has been exposed to heat.
- **Vehicle or equipment fires – See Guide 00.**
- If unable to control fire, treat as a cargo fire.
- Separate prime mover from trailer if safe to do so.

### Spill or leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 20 m.
- All equipment used when handling the product must be earthed.
- Do not touch or walk through spilled material.
- Do not touch damaged containers, packages or spilled material unless wearing appropriate protective clothing.
- **DO NOT OPERATE RADIO TRANSMITTERS WITHIN 100 m OF ELECTRIC DETONATORS.**
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**
- KEEP 'WETTED' PRODUCT WET BY SLOWLY ADDING WATER.

### First aid

- Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.

*** Compatibility Groups** *(continued)*

| | |
|---|---|
| G, H | Substances that burn fiercely with no mass explosion hazard and give off dense smoke with, in some instances, toxic effects |
| K | Articles containing explosive and toxic materials |
| L | Substances and articles that present a special risk and could be activated by air (pyrophoric) or water |
| N | Articles that contain only extremely insensitive detonating substances and that demonstrate a negligible probability of accidental inflation or explosion |

## GUIDE 03 | EXPLOSIVE SUBSTANCES* DIVISION 1.4

### HAZARDS

**Fire or explosion**

- When subjected to heat, shock or friction, explosives of Division 1.4 may burn vigorously with localized explosions and projection of fragments; risks are limited to the immediate vicinity.
- The effects of accidentally initiating packaged explosives of Division 1.4S are confined to the immediate vicinity of the package.

**Health**

- Fire may produce irritating, toxic or corrosive gases.

### PROTECTIVE CLOTHING

- For fires structural firefighting uniform and SCBA is required.

### PUBLIC SAFETY

**Evacuation**

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- In Australia, tell them 'Security Sensitive Explosive substances are involved in the incident'.
- If fire or heat threatens cargo area of explosives of Division 1.4, consider initial evacuation of areas within 100 m in all directions.

*** Compatibility Groups**

| | |
|---|---|
| B | Substances that are expected to explode or detonate in a mass explosion very soon after fire reaches them. |
| C | Substances that are readily ignited and burn violently without necessarily exploding. |
| D, E, F | Substances that may explode in a mass explosion accompanied by a blast and fragment hazard, but may be exposed to fire for some time before exploding. |
| G | Substances that burn fiercely with no mass explosion hazard and give off dense smoke with, in some instances, toxic effects. |
| S | Packaged substances that, if accidentally initiated, produce effects that are confined to the immediate vicinity. |

## GUIDE 03 | EXPLOSIVE SUBSTANCES* DIVISION 1.4

### EMERGENCY RESPONSE

**Fire**

**Cargo fires**

- Fight fire from sheltered position or use unmanned hose holders or monitor nozzles.
- For explosives of Divisions 1.4S, fight fire with normal precautions from reasonable distance to protect personnel.
- **Do not** move cargo if cargo has been exposed to heat.
- **This material may cause explosion and fragmentation hazards.**
- **Vehicle and equipment fires – see Guide 00.**
- If unable to control fire, treat as cargo fire.
- Separate prime mover from trailer if safe to do so.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 20 m.
- All equipment used when handling the product must be earthed.
- Do not touch or walk through spilled material.
- Do not touch damaged containers, packages or spilled material unless wearing appropriate protective clothing.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.

## GUIDE 04 GASES – FLAMMABLE
### Compressed, liquefied or deeply refrigerated (cryogenic)

## HAZARDS

**Fire or explosion**

- HIGHLY FLAMMABLE: will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air.
- Vapours from liquefied gas are usually heavier than air.
- Vapours may travel to source of ignition and flash back.
- Containers may explode when heated – Ruptured cylinders may rocket.
- Fire may produce irritating, toxic, and/or corrosive gases.
- May decompose explosively (D) or polymerise violently (P) when heated or involved in a fire.

**Health**

- High concentration of gas may cause asphyxiation without warning.
- Some are irritating or toxic in high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.

## PROTECTIVE CLOTHING

- Wear SCBA and structural firefighting uniform when handling leaking or damaged cylinders and equipment.
- Structural firefighter's uniform will provide limited protection.
- Always wear thermal protective clothing when handling cryogenic liquids and associated equipment.
- Fully encapsulating gas-tight suit does not provide significant protection against radiant and convective heat.

## PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 100 m in all directions.
- Keep unauthorised personnel away.
- Many gases are heavier than air and will collect in low or confined areas (drains, basements, tanks).
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial evacuation of areas within at least 800 m in all directions.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 1500 m in all directions.

## GUIDE 04 GASES – FLAMMABLE
## Compressed, liquefied or deeply refrigerated (cryogenic)

### EMERGENCY

**Fire**

- **DO NOT EXTINGUISH BURNING GAS UNLESS LEAK CAN BE STOPPED.**
- CUT OFF SOURCE OF GAS IF SAFE TO DO SO – IF NOT POSSIBLE, LEAVE GAS TO BURN, PROTECT EXPOSURES, COOL CONTAINERS.
- If safe to do so, move undamaged containers from fire area.
- Extinguish secondary fire.

**Small fire**

- Use dry chemical, $CO_2$ or water spray to extinguish burning gas if absolutely necessary and safe to do so.
- Do not use water jets.

**Large fire**

- Cool container by directing flooding quantities of water onto upper surface until well after fire is out – Do not direct water at source of leak or venting safety devices as icing may occur.
- Cool container and fight secondary fire from protected position or use unmanned hose holders or monitor nozzles – When impossible, withdraw immediately from hazard area and let burn.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank – tank may explode.
- ALWAYS stay away from tank ends.
- Damaged container should only be handled following expert advice.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 200 m –All equipment used when handling the product must be earthed.
- Prevent spreading of vapours through drains and ventilation systems.
- Ventilate the area.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – If possible, turn leaking container so that gas escapes rather than liquid – Prevent entry into waterways, drains or confined areas.
- Use water spray, fog or vapour-suppressing foam to knock down vapours or divert vapour clouds – Do not direct water at source of leak or venting safety devices as icing may occur.

**Caution:** When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately – Clothing frozen to the skin should be thawed before being removed – In case of frostbite, thaw with lukewarm water.
- Keep victim warm and quiet.
- Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

| GUIDE 05 | GASES – TOXIC, FLAMMABLE<br>Compressed, liquefied or deeply refrigerated (cryogenic) |
|---|---|

## HAZARDS

| | |
|---|---|
| **Fire or explosion** | • May form explosive mixtures with air.<br>• May be ignited by heat, sparks or flames.<br>• Vapours from liquefied gas are usually heavier than air.<br>• Vapours may travel to source of ignition and flash back.<br>• May react violently with water.<br>• Containers may explode when heated – Ruptured cylinders may rocket.<br>• Runoff may create fire or explosion hazard.<br>• Fire will produce irritating, toxic, and/or corrosive gases.<br>• May decompose explosively (D) or polymerise violently (P) when heated or involved in a fire. |
| **Health** | • TOXIC, MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH SKIN.<br>• Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.<br>• Runoff may pollute waterways. |

## PROTECTIVE CLOTHING

- Wear SCBA and fully-encapsulating, gas-tight suit when handling leaking or damaged cylinders and equipment.
- Where ignition of gas is likely then structural firefighting uniform should be considered.
- Always wear thermal protective clothing when handling cryogenic liquids and associated equipment.

## PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leakage area should be isolated immediately for at least 100 m in all directions.
- Keep unauthorised personnel away.
- Many gases are heavier than air and will collect in low or confined areas (drains, basements, tanks).
- Keep upwind and to higher ground.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial evacuation of areas within at least 800 m in all directions.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 1500 m in all directions.

## GUIDE 05 GASES – TOXIC, FLAMMABLE
### Compressed, liquefied or deeply refrigerated (cryogenic)

## EMERGENCY RESPONSE

**Fire**

- **DO NOT EXTINGUISH BURNING GAS UNLESS LEAK CAN BE STOPPED.**
- **ATTACK FROM AN UPWIND POSITION.**
- CUT OFF SOURCE OF GAS IF SAFE TO DO SO – IF NOT POSSIBLE LEAVE GAS TO BURN, PROTECT EXPOSURES, COOL CONTAINERS.
- If safe to do so, move undamaged containers from fire area.
- Extinguish secondary fire.

**Small fire**

- Use dry chemical, $CO_2$ or water spray to extinguish burning gas if absolutely necessary and safe to do so – Do not use water jets.

**Large fire**

- Cool container by flooding water into upper surface until well after fire is out – Do not direct water at source of leak or venting safety devices as icing may occur.
- Fight secondary fire from protected position or use unmanned hose holders or monitor nozzles.
- When impossible to contain fire, withdraw immediately from hazard area and let burn.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank – tank may explode.
- ALWAYS stay away from tank ends.
- Damaged containers should only be handled following expert advice.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 200 m – All equipment used when handling the product must be earthed.
- Prevent spreading of vapours through drains and ventilation systems.
- Ventilate the area – Do not touch or walk through spilled material.
- Stop leak if safe to do so – If possible, turn leaking container so that gas escapes rather than liquid – Prevent entry into waterways, drains or confined areas.
- Use water spray, fog or vapour-suppressing foam to knock down vapours or divert vapour clouds – Do not direct water at source of leak or venting safety devices as icing may occur.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**Caution:** When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately – Clothing frozen to the skin should be thawed before being removed – In case of frostbite, thaw with lukewarm water.
- Keep victim warm and quiet, and under observation – Effects of exposure (ingestion, inhalation or skin contact) may be delayed.
- Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

| GUIDE 06 | GASES – SLIGHTLY TOXIC AND/OR CORROSIVE AND FLAMMABLE<br>Compressed, liquefied or deeply refrigerated (cryogenic) |
|---|---|

## HAZARDS

| | |
|---|---|
| **Fire or explosion** | • Vapours from liquefied gas are usually heavier than air.<br>• Containers may explode when heated – Ruptured cylinders may rocket.<br>• May burn but do not ignite readily.<br>• Fire may produce irritating, toxic, and/or corrosive gases. |
| **Health** | • High concentration of gas may cause asphyxiation without warning.<br>• Some are irritants.<br>• Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite. |

## PROTECTIVE CLOTHING

- Wear SCBA and fully encapsulated, gas-tight suit.
- If a fully encapsulated, gas-tight suit is not available chemical splash suits should be a preferred option over structural firefighting uniform.
- Structural firefighter's uniform will provide limited protection.
- Always wear thermal protective clothing when handling cryogenic liquids and associated equipment.

## PUBLIC SAFETY

- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep unauthorised personnel away.
- Many gases are heavier than air and will collect in low or confined areas (drains, basements, tanks).
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 500 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 06 | GASES – SLIGHTLY TOXIC AND/OR CORROSIVE AND FLAMMABLE
**Compressed, liquefied or deeply refrigerated (cryogenic)**

## EMERGENCY RESPONSE

### Fire

- **DO NOT EXTINGUISH BURNING GAS UNLESS LEAK CAN BE STOPPED.**
- CUT OFF SOURCE OF GAS IF SAFE TO DO SO – IF NOT POSSIBLE, LEAVE GAS TO BURN, PROTECT EXPOSURES, COOL CONTAINERS.
- If safe to do so, move undamaged containers from fire area.
- Extinguish secondary fire.

**Small fire**

- Use dry chemical, $CO_2$ or water spray to extinguish burning gas if absolutely necessary and safe to do so – Do not use water jets.

**Large fire**

- Cool container by directing flooding quantities of water into upper surface until well after fire is out – Do not direct water at source of leak or venting safety devices as icing may occur.
- Cool container and fight secondary fire from protected position or use unmanned hose holders or monitor nozzles – When impossible withdraw immediately from hazard area and let burn.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank – tank may explode.
- ALWAYS stay away from tank ends.
- Damaged containers should only be handled following expert advice.

### Spill or leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 50 m – All equipment used when handling the product must be earthed.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – If possible, turn leaking container so that gas escapes rather than liquid – Prevent entry into waterways, drains and confined areas.
- Use water spray, fog or vapour-suppressing foam to knock down vapours or divert vapour clouds – Do not direct water at source of leak or venting safety devices as icing may occur.
- Allow substance to evaporate – Ventilate the area.

**Caution:** When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

### First aid

- Remove victim to fresh air – Apply resuscitation if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately – Clothing frozen to the skin should be thawed before being removed – In case of frostbite, thaw with lukewarm water.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of identity of product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

## GUIDE 07 GASES – TOXIC AND/OR CORROSIVE
### Compressed, liquefied or deeply refrigerated (cryogenic)

## HAZARDS

**Fire or explosion**

- Vapours from liquefied gas are usually heavier than air.
- Containers may explode when heated – Ruptured cylinders may rocket.
- May react violently with water.
- Fire may produce irritating, toxic, and/or corrosive gases.

**Health**

- TOXIC, MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH THE SKIN.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Runoff may pollute waterways.

## PROTECTIVE CLOTHING

- Wear SCBA and fully-encapsulating, gas-tight suit when handling leaking or damaged cylinders or equipment.
- Chemical splash suit and structural firefighting uniform offer inadequate protection from this hazard.
- Always wear thermal protective clothing when handling cryogenic liquids and associated equipment.

## PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 100 m in all directions.
- Keep unauthorised personnel away.
- Many gases are heavier than air and will collect in low or confined areas (drains, basements, tanks).
- Keep upwind and to higher ground.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 800 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 1500 m in all directions.

## GUIDE 07 GASES – TOXIC AND/OR CORROSIVE
## Compressed, liquefied or deeply refrigerated (cryogenic)

### EMERGENCY RESPONSE

**Fire**

- **ATTACK FROM AN UPWIND POSITION.**

**Small fire**

- Use extinguishing agent suitable for type of surrounding fire.
- If safe to do so, move undamaged containers from fire area.
- Cool container by directing flooding quantities of water onto upper surface until well after fire is out – Do not direct water at source of leak or venting safety devices as icing may occur.

**Large fire**

- Cool container and fight secondary fire from protected position or use unmanned hose holders or monitor nozzles.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank – tank may explode.
- ALWAYS stay away from tank ends.
- Damaged containers should only be handled following expert advice.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 50 m – All equipment used when handling the product must be earthed.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – If possible, turn leaking container so that gas escapes rather than liquid – Prevent entry into waterways, drains or confined areas.
- Use water spray, fog or vapour-suppressing foam to knock down vapours or divert vapour clouds – Do not direct water at spill or source of leak.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**Caution:** When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately – Clothing frozen to the skin should be thawed before being removed – In case of frostbite, thaw with lukewarm water.
- Keep victim warm and quiet, and under observation – Effects of exposure (ingestion, inhalation or skin contact) may be delayed.
- Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

## GUIDE 08 GASES – NON-REACTIVE, ASPHYXIANTS
## Compressed, liquefied or deeply refrigerated (cryogenic)

### HAZARDS

**Fire or explosion**

- Non-flammable gases.
- Vapours from liquefied gas are usually heavier than air.
- Containers may explode when heated – Ruptured cylinders may rocket.

**Health**

- High concentration of gas may cause asphyxiation without warning.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.

### PROTECTIVE CLOTHING

- Wear SCBA for large spills and in confined areas.
- Structural firefighter's uniform will provide limited protection.
- Always wear thermal protective equipment when handling cryogenic liquids and associated equipment.

### PUBLIC SAFETY

- Spill or leak area should be isolated immediately for at least 15 m in all directions.
- Keep unauthorised personnel away.
- Many gases are heavier than air and will collect in low or confined areas (drains, basements, tanks).
- Keep upwind and to higher ground.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 500 m in all directions.

## GUIDE 08 | GASES – NON-REACTIVE, ASPHYXIANTS
## Compressed, liquefied or deeply refrigerated (cryogenic)

### EMERGENCY RESPONSE

**Fire**

**Small fire**

- Use extinguishing agent suitable for type of surrounding fire.
- If safe to do so, move undamaged containers from fire area.
- Cool container by directing flooding quantities of water onto upper surface until well after fire is out.

**Large fire**

- Cool container and fight fire from protected position or use unmanned hose holders or monitor nozzles – Do not direct water at source of leak or venting safety devices as icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank – tank may explode.
- ALWAYS stay away from tank ends.
- Damaged containers should only be handled following expert advice.

**Spill or leak**

- Do not touch or walk through spilled material.
- Stop leak if safe to do so – If possible, turn leaking container so that gas escapes rather than liquid – Prevent entry into waterways, drains or confined areas.
- Use water spray, fog or vapour-suppressing foam to knock down vapours or divert vapour clouds – Do not direct water at spill or source of leak.
- Allow substance to evaporate – Ventilate the area.

**Caution:** When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately – Clothing frozen to the skin should be thawed before being removed – In case of frostbite, thaw with lukewarm water.
- Keep victim warm and quiet.
- Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

## GUIDE 09

## CARBON DIOXIDE ($CO_2$)
## Compressed, liquefied or solid

### HAZARDS

**Fire or explosion**

- Non-flammable gas, solid or liquid under pressure.
- Containers may explode when heated – Ruptured cylinders may rocket.
- Vapour is heavier than air.

**Health**

- High concentration of gas may cause asphyxiation without warning.
- Contact with liquefied or solidified gas may cause severe frostbite.

  NOTE – Damaged packages containing solid $CO_2$ as a refrigerant are likely to produce water or frost from condensation of air. Do not touch this liquid as it could be contaminated by the contents of the parcel.

### PROTECTIVE CLOTHING

- Wear SCBA for large spills and in confined areas.
- Structural firefighter's uniform will provide limited protection.
- Always wear thermal protective equipment when handling cryogenic liquids and associated equipment.

### PUBLIC SAFETY

- Isolate spill or leak area.
- Keep upwind and to higher ground.
- Keep unauthorised personnel away.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 500 m in all directions.

## GUIDE 09

## CARBON DIOXIDE ($CO_2$)
## Compressed, liquefied or solid

### EMERGENCY RESPONSE

**Fire**

**Small fire**

- Use extinguishing agent suitable for type of surrounding fire.
- If safe to do so, move undamaged containers from fire area.
- Cool container by directing flooding quantities of water onto upper surface until well after fire is out.

**Large fire**

- Cool container and fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Do not direct water at source of leak or venting safety devices as icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank – tank may explode.
- ALWAYS stay away from tank ends.
- Damaged containers should only be handled following expert advice.

**Spill or leak**

- Do not touch or walk through spilled material.
- Stop leak if safe to do so – If possible, turn leaking container so that gas escapes rather than liquid – Prevent entry into waterways, drains or confined areas.
- Use water spray, fog or vapour-suppressing foam to knock down vapours or divert vapour clouds – Do not direct water at spill or source of leak.
- Allow substance to evaporate – Ventilate the area.

**Caution:** When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately – Clothing frozen to the skin should be thawed before being removed – In case of frostbite, thaw with lukewarm water.
- Keep victim warm and quiet.
- Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

## GUIDE 10 GASES – OXIDIZING
## Compressed, liquefied or deeply refrigerated (cryogenic)

### HAZARDS

**Fire or explosion**

- Will not burn but will increase intensity of fire.
- Some will react explosively with hydrocarbons (fuels).
- May ignite combustibles (wood, paper, clothing, and so on).
- Vapours from liquefied gas usually heavier than air.
- Containers may explode when heated – Ruptured cylinders may rocket.
- Runoff may create fire or explosion hazard.
- Fire may produce irritating or toxic gases.

**Health**

- High concentration of gas may cause asphyxiation without warning.
- Some are narcotic in high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.

### PROTECTIVE CLOTHING

- Wear SCBA and fully-encapsulating, gas-tight suit when handling leaking or damaged cylinders and equipment for large spills and in confined areas.
- SCBA and chemical splash suits will offer significant protection.
- Always wear thermal protective clothing when handling cryogenic liquids and associated equipment.

### PUBLIC SAFETY

- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Many gases are heavier than air and will collect in low or confined areas (drains, basements, tanks).
- Keep upwind and to higher ground.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 10 GASES – OXIDIZING
## Compressed, liquefied or deeply refrigerated (cryogenic)

### EMERGENCY RESPONSE

**Fire**

**Small fire**

- Use extinguishing agent suitable for type of surrounding fire.
- If safe to do so, move undamaged containers from fire area.
- Cool container by directing flooding quantities of water onto upper surface until well after fire is out.

**Large fire**

- Cool container and fight fire from protected position or use unmanned hose holders or monitor nozzles – Do not direct water at source of leak or venting safety devices as icing may occur.
- When impossible, withdraw immediately from hazard area and let burn.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank – tank may explode.
- ALWAYS stay away from tank ends.
- Damaged containers should only be handled following expert advice.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 50 m – All equipment used when handling the product must be earthed.
- Keep combustibles (wood, paper, clothing, oil, and so on) away from spilled material.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – If possible, turn leaking container so that gas escapes rather than liquid – Prevent entry into waterways, drains or confined areas.
- Use water spray, fog or vapour-suppressing foam to knock down vapours or divert vapour clouds – Do not direct water at source of spill or leak.
- Allow substance to evaporate – Ventilate the area.

**Caution:** When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately – Clothing frozen to the skin should be thawed before being removed – In case of frostbite, thaw with lukewarm water.
- Keep victim warm and quiet.
- Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

## GUIDE 11 OXYGEN
### Compressed, liquefied or deeply refrigerated (cryogenic)

## HAZARDS

**Fire or explosion**

- Oxygen does not burn but will increase intensity of fire.
- May ignite combustibles (wood, paper, oil, clothing, and so on).
- Oxygen in liquid form may explode when in contact with combustible materials (oil, asphalt, hot tyres, and so on).
- Vapours from liquefied gas are usually heavier than air.
- Containers may explode when heated – Ruptured cylinders may rocket.
- Burning material may produce irritating fumes.

**Health**

- Prolonged inhalation of pure oxygen may cause pulmonary irritation and oedema.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.

## PROTECTIVE CLOTHING

- Wear SCBA and structural firefighting uniform when handling leaking or damaged cylinders and equipment.
- Always wear thermal protective equipment when handling cryogenic liquids and associated equipment.

## PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 11 OXYGEN
## Compressed, liquefied or deeply refrigerated (cryogenic)

### EMERGENCY RESPONSE

**Fire**

**Small fire**

- Use extinguishing agent suitable for type of surrounding fire.
- If safe to do so, move undamaged containers from fire area.
- Cool container by directing flooding quantities of water onto upper surface until well after fire is out.

**Large fire**

- Cool container and fight fire from protected position or use unmanned hose holders or monitor nozzles – Do not direct water at source of leak or venting safety devices as icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank – tank may explode.
- Always stay away from tank ends.
- Damaged containers should only be handled following expert advice.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 50 m.
- Keep combustibles (wood, paper, clothing, oil, and so on) away from spilled material.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – If possible, turn leaking container so that gas escapes rather than liquid – Prevent entry into waterways, drains or confined areas.
- Use water spray, fog or vapour-suppressing foam to knock down vapours or divert vapour clouds – Do not direct water at spill or source of leak.
- Allow substance to evaporate – Ventilate the area.

**Caution:** When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately – Clothing frozen to the skin should be thawed before being removed – In case of frostbite, thaw with lukewarm water.
- Keep victim warm and quiet.
- Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of product(s) involved, and take precautions to protect themselves.

## GUIDE 12 — GASES – TOXIC, CORROSIVE AND OXIDIZING
**Compressed, liquefied or deeply refrigerated (cryogenic)**

### HAZARDS

**Fire or explosion**

- Will not burn but will increase intensity of fire.
- Will react vigorously or explosively with many materials.
- Some will react explosively with hydrocarbons (fuels).
- May ignite combustibles (wood, paper, oil, clothing, and so on).
- Vapours from liquefied gas are usually heavier than air.
- Some will react violently with air, moist air, and/or water.
- Containers may explode when heated – Ruptured cylinders/dispensers may rocket.

**Health**

- TOXIC: MAY BE FATAL IF INHALED.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Runoff may pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and fully-encapsulating, gas-tight suit when handling leaking or damaged cylinders and equipment.
- Always wear thermal protective clothing when handling cryogenic liquids and associated equipment.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 100 m in all directions.
- Keep unauthorised personnel away.
- Many gases are heavier than air and will collect in low or confined areas (drains, basements, tanks).
- Keep upwind and to higher ground.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 800 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within at least 1500 m in all directions.

## GUIDE 12 GASES – TOXIC, CORROSIVE AND OXIDIZING
## Compressed, liquefied or deeply refrigerated (cryogenic)

## EMERGENCY RESPONSE

### Fire

- **ATTACK FROM AN UPWIND POSITION.**
- Water only: no dry chemical or $CO_2$.
- Contain fire and let burn – If fire must be fought, use water spray or fog.
- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.
- If safe to do so, move undamaged containers from fire area.
- Damaged containers should only be handled following expert advice.

**Fire involving tanks**

- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Do not direct water at source of leak or venting safety devices as icing may occur.
- When impossible, withdraw from area and let fire burn – Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank – tank may explode.
- ALWAYS stay away from tank ends.

### Spill or leak

- Eliminate all ignition sources (no smoking, flares, spark or flame) within at least 50 m – All equipment used when handling this product must be earthed.
- Keep combustibles (wood, paper, clothing, oil, and so on) away from spilled material.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Use water spray, fog or vapour-suppressing foam to knock down vapours or divert vapour clouds – Do not direct water at source of spill or leak.
- Isolate area until gas has dispersed – Ventilate the area.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**Caution:** When in contact with cryogenic liquids, most materials become brittle and are likely to break without warning.

### First aid

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately – Clothing frozen to the skin should be thawed before being removed – In case of frostbite, thaw with lukewarm water.
- Keep victim warm and quiet, and under observation – Effects of exposure (ingestion, inhalation and skin contact) may be delayed.
- Obtain immediate medical care – Ensure that attending medical personnel are aware of identity ad nature of product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

## GUIDE 13 | GASES – TOXIC, SPONTANEOUSLY COMBUSTIBLE (PYROPHORIC) Compressed or liquefied

### HAZARDS

**Fire or explosion**

- Will be easily ignited by heat, sparks or flame.
- May form explosive mixtures with air.
- May ignite spontaneously on contact with air – May re-ignite after fire is extinguished.
- Vapours from liquefied gas are usually heavier than air.
- Containers may explode when heated – Ruptured cylinders may rocket.
- Fire may product irritating, toxic, and/or corrosive gases.
- May decompose explosively (D) or polymerise violently (P) when heated or involved in a fire.

**Health**

- TOXIC: MAY BE FATAL IF INHALED.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.

### PROTECTIVE CLOTHING

- Wear SCBA, fully-encapsulating, gas-tight suit, and structural firefighting uniform when handling leaking or damaged cylinders and equipment.
- Always wear thermal protective clothing when handling cryogenic liquids and associated equipment.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep unauthorised personnel away.
- Many gases are heavier than air and will collect in low or confined areas (drains, basements, tanks).
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial evacuation of areas within at least 800 m in all directions.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within at least 1500 m in all directions.

## GUIDE 13 | GASES – TOXIC, SPONTANEOUSLY COMBUSTIBLE (PYROPHORIC) Compressed or liquefied

### EMERGENCY RESPONSE

**Fire**

- **DO NOT EXTINGUISH BURNING GAS UNLESS LEAK CAN BE STOPPED.**
- **ATTACK FROM AN UPWIND POSITION.**
- CUT OFF SOURCE OF GAS IF SAFE TO DO SO – IF NOT POSSIBLE, LEAVE GAS TO BURN, PROTECT EXPOSURES, COOL CONTAINERS.
- If safe to do so, move undamaged containers from fire area.
- Extinguish secondary fire.

**Small fire**

- Use dry chemical or $CO_2$ to extinguish burning gas if absolutely necessary and safe to do so.

**Large fire**

- Cool container by directing flooding quantities of water onto upper surface until well after fire is out – Do not direct water at source of leak or venting safety devices as icing may occur.
- Cool container and fight secondary fire from protected position or use unmanned hose holders or monitor nozzles – When impossible withdraw immediately from hazard area and let burn.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank – tank may explode.
- ALWAYS stay away from tank ends.
- Damaged cylinders should only be handled following expert advice.

**Spill or leak**

- Eliminate all ignition sources (no smoking, flares, sparks or flame) within at least 50 m – All equipment used when handling this product must be earthed.
- Keep combustibles (wood, paper, clothing, oil, and so on) away from spilled material.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains and confined areas – Use water spray, fog or vapour-suppressing foam to knock down vapours or divert vapour clouds – Do not direct water at source of spill or leak.
- Isolate area until gas has dispersed – Ventilate the area.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately – Clothing frozen to the skin should be thawed before being removed – In case of frostbite, thaw with lukewarm water.
- Keep victim warm and quiet, and under observation – Effects of exposure (ingestion, inhalation and skin contact) may be delayed.
- Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

## GUIDE 14 | LIQUIDS – HIGHLY FLAMMABLE

### HAZARDS

**Fire or explosion**

- **HIGHLY FLAMMABLE:** These products have a low flashpoint – Will be easily ignited by heat, sparks or flames at ambient temperatures.
- Vapours will form explosive mixtures with air.
- Vapours will travel to source of ignition and flash back.
- Fire may produce irritating, toxic or corrosive gases.
- Containers may explode when heated.
- Many liquids are lighter than water.
- Many vapours are heavier than air and will collect in low or confined areas (drains, basements, tanks).
- Vapours from runoff may create an explosion hazard.
- Some may decompose explosively (D) or polymerise violently (P) when heated or involved in a fire.

**Health**

- May irritate or burn skin and eyes.
- Runoff from fire control or dilution water may pollute waterways.
- Vapours may cause dizziness or drowsiness.

### PROTECTIVE CLOTHING

- SCBA and gas-tight suits should be worn when dealing with damaged or leaking containers and where there is no risk of ignition.
- SCBA and structural firefighting uniform provide limited protection where there is a risk of ignition.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 300 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 500 m in all directions.

## GUIDE 14 | LIQUIDS – HIGHLY FLAMMABLE

### EMERGENCY RESPONSE

**Fire**

- **Caution: Use of water spray when fighting fire may be inefficient.**

**Small fire**

- Use foam, dry chemical, $CO_2$ or water spray.

**Large fire**

- Use foam, fog or water spray – Do not use water jets.
- If safe to do so, move undamaged containers from fire area.
- Cool container with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.

**Fire involving tanks**

- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- When impossible, immediately withdraw from hazard area and let burn.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

  NOTE – For substances containing alcohol or polar solvent, alcohol-resistant foam may be necessary.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 50 m – All equipment used in handling the product must be earthed.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Vapour-suppressing foam may be used to control vapours.
- Absorb spill with earth, sand or other non-combustible material – Use clean, non-sparking tools to collect material and place it in loosely-covered metal or plastic containers for later disposal.
- Water spray may be used to knock down or divert vapour clouds.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.

## GUIDE 15 | LIQUIDS – FLAMMABLE

### HAZARDS

**Fire or explosion**

- May be ignited by heat, sparks or flames.
- Vapours may form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air and will spread along ground and will collect in low or confined areas (drains, basements, tanks).
- Many liquids are lighter than water.
- Containers may explode when heated.
- Fire may produce irritating, toxic, and/or corrosive gases.
- Vapours from runoff may create an explosion hazard.
- Some may decompose explosively (D) or polymerise violently (P) when heated or involved in a fire.

**Health**

- May irritate or burn skin and eyes.
- Runoff from fire control or dilution water may pollute waterways.
- Vapour may cause dizziness or drowsiness.

### PROTECTIVE CLOTHING

- SCBA and gas-tight suits should be worn when dealing with damaged or leaking containers and where there is no risk of ignition.
- SCBA and structural firefighting uniform provide limited protection where there is a risk of ignition.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 15 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 100 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 500 m in all directions.

## GUIDE 15 | LIQUIDS – FLAMMABLE

### EMERGENCY RESPONSE

**Fire**

**Small fire**

- Use foam, dry chemical, $CO_2$ or water spray.

**Large fire**

- Use foam, fog or water spray.
- Do not use water jets.
- If safe to do so, move undamaged containers from fire area.
- Cool container with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.

**Fire involving tanks**

- Fight fire from protected position or use unmanned hose holders or monitor nozzles – When impossible, immediately withdraw from hazard area and let burn.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 25 m – All equipment used in handling the product must be earthed.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Vapour-suppressing foam may be used to control vapours – Water spray may be used to knock down or divert vapour clouds.
- Absorb with earth, sand or other non-combustible material.
- Use clean non-sparking tools to collect absorbed material and place it into loosely-covered metal or plastic containers for later disposal.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of the product(s) involved, and take precautions to protect themselves.

## GUIDE 16 | LIQUIDS – HIGHLY FLAMMABLE, TOXIC

### HAZARDS

**Fire or explosion**

- HIGHLY FLAMMABLE: These liquids have a low flashpoint – Will be easily ignited by heat, sparks or flame.
- Vapours will form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air and will collect in low or confined areas (drains, basements, tanks).
- Many liquids are lighter than water.
- Containers may explode when heated.
- Fire will produce irritating, toxic, and/or corrosive gases.
- Vapours from runoff may create an explosion hazard.
- Some may decompose explosively (D) or polymerise violently (P) when heated or involved in a fire.

**Health**

- TOXIC: MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH SKIN.
- May irritate or burn skin and eyes.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- SCBA and gas-tight suits should be worn when dealing with damaged or leaking containers and where there is no risk of ignition.
- SCBA and structural firefighting uniform provide VERY limited protection where there is a risk of ignition.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep upwind and to higher ground.
- Keep unauthorised personnel away.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 300 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 1000 m in all directions.

## GUIDE 16 | LIQUIDS – HIGHLY FLAMMABLE, TOXIC

### EMERGENCY RESPONSE

**Fire**

**Caution: Use of water spray when fighting fire may be inefficient.**

**Small fire**

- Use foam, dry chemical, $CO_2$ or water spray.

**Large fire**

- Use foam, fog or water spray – Do not use water jets – If safe to do so, move undamaged containers from fire area.
- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.

**Fire involving tanks**

- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- When impossible, immediately withdraw from hazard area and let burn.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 50 m – All equipment used when handling the product must be earthed.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Vapour-suppressing foam may be used to control vapours – Water spray may be used to knock down or divert vapour clouds.
- Absorb with earth, sand or other non-combustible material.
- Use clean, non-sparking tools to collect material and place it in loosely-covered metal or plastic containers for later disposal.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

## GUIDE 17 | LIQUIDS – FLAMMABLE, TOXIC

### HAZARDS

**Fire or explosion**

- May be ignited by heat, sparks or flame.
- Vapours will form explosive mixtures with air.
- Vapours will travel to source of ignition and flash back.
- Most vapours are heavier than air and will collect in low or confined areas (drains, basements, tanks).
- Many liquids are lighter than water.
- Containers may explode when heated.
- Vapours from runoff may create an explosion hazard.
- Fire will produce irritating, toxic, and/or corrosive gases.
- Some may decompose explosively (D) or polymerise violently (P) when heated or involved in a fire.

**Health**

- TOXIC: MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH SKIN.
- May irritate or burn skin and eyes.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- SCBA and gas-tight suits should be worn when dealing with damaged or leaking containers and where there is no risk of ignition.
- SCBA and structural firefighting uniform provide VERY limited protection where there is a risk of ignition.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep upwind and to higher ground.
- Keep unauthorised personnel away.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 300 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 500 m in all directions.

## GUIDE 17 | LIQUIDS – FLAMMABLE, TOXIC

### EMERGENCY RESPONSE

**Fire**

**Small fire**

- Use foam, dry chemical, $CO_2$ or water spray.

**Large fire**

- Use foam, fog or water spray – Do not use water jets.
- If safe to do so, move undamaged containers from fire area.
- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.

**Fire involving tanks**

- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- When impossible, immediately withdraw from hazard area and let burn.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 25 m – All equipment used in handling the product must be earthed.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Vapour-suppressing foam may be used to control vapours – Water spray may be used to knock down or divert vapour clouds.
- Absorb with earth, sand or other non-combustible material.
- Use clean, non-sparking tools to collect material and place it in loosely-covered metal or plastic containers for later disposal.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of the product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

## GUIDE 18 | LIQUIDS – HIGHLY FLAMMABLE, TOXIC AND/OR CORROSIVE

### HAZARDS

**Fire or explosion**

- HIGHLY FLAMMABLE: These liquids have a low flashpoint – Will be easily ignited by heat, sparks or flame.
- Vapours will form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air and will collect in low or confined areas (drains, basements, tanks).
- Many liquids are lighter than water.
- Containers may explode when heated.
- Fire will produce irritating, toxic, and/or corrosive gases.
- Vapours from runoff may create an explosion hazard.
- Some may decompose explosively (D) or polymerise violently (P) when heated or involved in a fire.

**Health**

- TOXIC: MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH SKIN.
- May irritate or burn skin and eyes.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA, fully-encapsulating, gas-tight suit and structural firefighting uniform when handling leaking or damaged containers and equipment.
- SCBA and chemical splash suits will offer limited protection for brief exposure provided there is no risk of ignition.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep upwind and to higher ground.
- Keep unauthorised personnel away.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 300 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 500 m in all directions.

## GUIDE 18 | LIQUIDS – HIGHLY FLAMMABLE, TOXIC AND/OR CORROSIVE

### EMERGENCY RESPONSE

**Fire**

**Caution: Use of water spray when fighting fire may be inefficient.**

**Small fire**

- Use foam, dry chemical, $CO_2$ or water spray.

**Large fire**

- Use foam, fog or water spray – Do not use water jets – If safe to do so, move undamaged containers from fire area.
- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.

**Fire involving tanks**

- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- When impossible, immediately withdraw from hazard area and let burn.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 50 m – All equipment used in handling the product must be earthed.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Vapour-suppressing foam may be used to control vapours – Water spray may be used to knock down or divert vapour clouds.
- Absorb with earth, sand or other non-combustible material.
- Use clean, non-sparking tools to collect material and place it in loosely-covered metal or plastic containers for later disposal.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

## GUIDE 19 | LIQUIDS – FLAMMABLE, TOXIC AND/OR CORROSIVE

### HAZARDS

**Fire or explosion**

- May be ignited by heat, sparks or flame.
- Vapours may form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air and will collect in low or confined areas (drains, basements, tanks).
- Many liquids are lighter than water.
- Containers may explode when heated.
- Vapours from runoff may create an explosion hazard.
- Fire will produce irritating, toxic, and/or corrosive gases.
- Some will decompose explosively (D) or polymerise violently (P) when heated or involved in a fire.

**Health**

- TOXIC: MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH SKIN.
- May irritate or burn skin and eyes.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA, fully-encapsulating, gas-tight suit and structural firefighting uniform when handling leaking or damaged containers and equipment.
- SCBA and chemical splash suits will offer limited protection for brief exposure provided there is no risk of ignition.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 500 m in all directions.

## GUIDE 19 | LIQUIDS – FLAMMABLE, TOXIC AND/OR CORROSIVE

### EMERGENCY RESPONSE

| | |
|---|---|
| **Fire** | **Small fire**<br>• Use foam, dry chemical, $CO_2$ or water spray.<br>**Large fire**<br>• Use foam, fog or water spray – Do not use water jets.<br>• If safe to do so, move undamaged containers from fire area.<br>• Cool container with flooding quantities of water until well after fire is out.<br>• Avoid getting water inside containers.<br>**Fire involving tanks**<br>• Fight fire from protected position or use unmanned hose holders or monitor nozzles.<br>• When impossible, immediately withdraw from hazard area and let burn.<br>• Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.<br>• ALWAYS stay away from tank ends. |
| **Spill or leak** | • ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 25 m – All equipment used when handling the product must be earthed.<br>• Do not touch or walk through spilled material.<br>• Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.<br>• Vapour-suppressing foam may be used to control vapours – Water spray may be used to knock down or divert vapour clouds.<br>• Absorb with earth, sand or other non-combustible material.<br>• Use clean, non-sparking tools to collect material and place it in loosely-covered metal or plastic containers for later disposal.<br>• **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.** |
| **First aid** | • Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.<br>• Remove contaminated clothing and shoes immediately.<br>• In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.<br>• Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.<br>• CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER). |

## GUIDE 20 | SOLIDS – FLAMMABLE

### HAZARDS

**Fire or explosion**

- May be ignited by friction, heat, sparks or flame.
- Vapours, dust, borings or turnings may form explosive mixtures with air.
- May burn fiercely.
- May re-ignite after fire is extinguished.
- Fire may produce irritating, toxic, and/or corrosive gases.
- Containers may explode when heated.
- Runoff may pollute waterways.
- May be transported in a molten form.
- Solids may melt and flow when heated or involved in a fire.

**Health**

- May be toxic if inhaled or absorbed through skin.
- Contact with molten substance may cause severe burns.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform may provide limited protection.

### PUBLIC SAFETY

- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 1000 m in all directions.

## GUIDE 20 | SOLIDS – FLAMMABLE

### EMERGENCY RESPONSE

| | |
|---|---|
| **Fire** | **Small fire**<br>• Use foam, dry chemical, $CO_2$ or water spray.<br>**Large fire**<br>• Use water spray, fog or foam.<br>• If safe to do so, move undamaged containers from fire area.<br>• Cool containers with flooding quantities of water until well after fire is out.<br>**Fire involving tanks**<br>• Fight fire from protected position or use unmanned hose holders or monitor nozzles. |
| **Spill or leak** | • ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 15 m.<br>• Do not touch or walk through spilled material.<br>• Prevent entry into waterways, drains or confined areas.<br>• Obtain expert advice on use of water as spilled material may be water-reactive.<br>• Prevent dust cloud.<br>• Use clean non-sparking tools to collect absorbed material and place it into loosely-covered metal or plastic containers for later disposal.<br>• **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.** |
| **First aid** | • Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.<br>• Remove contaminated clothing and shoes immediately.<br>• In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.<br>• Keep victim warm and quiet – Obtain immediate medical care.<br>• Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves. |

## GUIDE 21 SELF-REACTIVE SUBSTANCES
## Type B to F, liquid or solid

### HAZARDS

**Fire or explosion**

- Self-decomposition or self-ignition may be triggered by heat, chemical reaction, friction or impact.
- May decompose explosively (D) when heated or involved in a fire.
- Some will decompose explosively, particularly if confined.
- May burn vigorously – Decomposition may be self-accelerating and produce large amounts of gases.
- Vapours or dusts may form explosive mixtures of air.
- May re-ignite after fire is extinguished.

**Health**

- May produce irritating, toxic, and/or corrosive gases.
- Inhalation or contact with vapour, substance or decomposition products may cause severe injury or death.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform may provide limited protection.

### PUBLIC SAFETY

- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 1000 m in all directions.

## GUIDE 21 SELF-REACTIVE SUBSTANCES Type B to F, liquid or solid

## EMERGENCY RESPONSE

### Fire

**Small fire**

- Use dry chemical, $CO_2$, water spray or foam.

**Large fire**

- Flood fire area with water from a distance.
- If safe to do so, move undamaged containers from fire area.
- Cool containers with flooding quantities of water until well after fire is out.

**Fire involving tanks**

- BEWARE OF POSSIBLE CONTAINER EXPLOSION.
- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

### Spill or leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 25 m.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Absorb with earth, sand or other non-combustible material.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

### First aid

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care.
- Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.

## GUIDE 22 — SELF-REACTIVE, TEMPERATURE-CONTROLLED SUBSTANCE – Type B to F, liquid or solid

### HAZARDS

**Fire or explosion**

- Self-decomposition or self-ignition may be triggered by heat, chemical reaction, friction or impact.
- Particularly sensitive to temperature rises – Above a given control temperature they decompose violently and catch fire – The specified control temperature must not be exceeded.
- Self-accelerating decomposition will occur if the specific control temperature is not maintained.
- May decompose explosively (D) when heated or involved in a fire.
- May burn vigorously – Decomposition may be self-accelerating and produce large amounts of gases.
- Vapours or dusts may form explosive mixtures with air.

**Health**

- May produce irritating, toxic, and/or corrosive gases.
- Inhalation or contact with vapour, substance or decomposition products may cause severe injury or death.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform may provide limited protection.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- **DO NOT ALLOW SUBSTANCE TO WARM UP.**
- The specified control temperature must not be exceeded at any time.
- Use dry ice or ice for cooling where necessary.
- If the temperature cannot be controlled, consider evacuation.
- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 300 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 1000 m in all directions.

## GUIDE 22 | SELF-REACTIVE, TEMPERATURE-CONTROLLED SUBSTANCE – Type B to F, liquid or solid

### EMERGENCY RESPONSE

**Fire**

**Small fire**

- Use dry chemical, $CO_2$, water spray or foam.

**Large fire**

- Flood fire area with water from a distance.
- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- If safe to do so, move undamaged containers from fire area.
- **DO NOT** move cargo or vehicle if cargo has been exposed to heat.
- BEWARE OF POSSIBLE CONTAINER EXPLOSION.
- Cool containers with flooding quantities of water until well after fire is out.

**Fire involving tanks**

- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 25 m.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Absorb with earth, sand or other non-combustible material.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care.
- Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.

## GUIDE 23 SPONTANEOUSLY COMBUSTIBLE SUBSTANCES (Air-reactive)

### HAZARDS

**Fire or explosion**

- Exposure to air will lead to spontaneous combustion.
- Burn rapidly.
- May re-ignite after fire is extinguished.
- Fire may produce irritating, toxic, and/or corrosive gases.
- Containers may explode when heated.
- Runoff may create multiple fire or explosion hazard.
- Some may decompose explosively (D) or polymerise violently (P) when heated or involved in a fire.

**Health**

- Vapours may accumulate in confined areas (drains, basements, tanks, hoppers).
- May produce irritating, toxic, and/or corrosive gases.
- Inhalation or contact with vapour, substance or decomposition products may cause severe injury or death.
- Runoff from fire control or dilution water may be corrosive and/or toxic, and pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and fully-encapsulating, gas-tight suit when handling these substances.
- Structural firefighter's uniform is NOT effective for these materials.

### PUBLIC SAFETY

- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 23 SPONTANEOUSLY COMBUSTIBLE SUBSTANCES (Air-reactive)

## EMERGENCY RESPONSE

### Fire

- Try to exclude oxygen

**Small fire**

- Use dry chemical, $CO_2$, foam or gentle water spray.
- If safe to do so, move undamaged containers from fire area.

**Large fire**

- Use foam, fog or water spray – Do not use water jets.
- Do not scatter material or allow it to spread.
- Cool containers with flooding quantities of water until well after fire is out.

**Fire involving tanks**

- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

### Spill or leak

- Try to exclude contact with oxygen.
- Use foam or inert gas, or cover with WET earth, sand or other non-combustible material.
- Keep the spill compact. Do not permit material to scatter or spread.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 25 m.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Use clean, non-sparking tools to collect material and place it into loosely-covered metal or plastic containers for later disposal.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

### First aid

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of the product(s) involved, and take precautions to protect themselves.

## GUIDE 24 | PHOSPHORUS, white or yellow

### HAZARDS

**Fire or explosion**

- Extremely flammable.
- Will ignite spontaneously on contact with air.
- Burns rapidly.
- May re-ignite after fire is extinguished if not kept covered by water, wet sand or wet earth.
- Fire will produce dense, white, irritating, and toxic fumes.
- Containers may explode when heated.
- Runoff may create multiple fire or explosion hazard.
- May be kept in molten form.

**Health**

- Inhalation or contact with vapour, substance or decomposition products may cause severe injury or death.
- Contact with molten substance may cause severe burns.
- Produces toxic and/or corrosive gases on contact with air.
- Runoff from fire control or dilution water may be corrosive and/or toxic, and pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and structural firefighting uniform when handling these substances.
- Always wear thermal protective clothing when handling molten substances.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 1000 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 1000 m in all directions.

## GUIDE 24 | PHOSPHORUS, white or yellow

## EMERGENCY RESPONSE

### Fire

- Try to exclude oxygen

**Small fire**

- Use foam or gentle water spray, wet sand or wet earth.
- If safe to do so, move undamaged containers from fire area.

**Large fire**

- Flood fire area with large quantities of water while knocking down vapours with water fog.
- Do not use water jets.
- Do not scatter material or allow it to spread.
- Cool containers with flooding quantities of water until well after fire is out.
- Allow any residual substance to burn off under fire brigade supervision.

**Fire involving tanks**

- Try to exclude contact with oxygen.
- Use foam or inert gas, or cover with WET earth, sand or other non-combustible material.
- Keep the spill compact. Do not permit material to scatter or spread.
- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

### Spill or leak

- Use water spray to reduce fumes or divert smoke plumes.
- Keep substance wet using water spray.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Cover with WET earth, sand or other non-combustible material.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**
- Allow residual substance to burn off under fire brigade supervision.

### First aid

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) may be delayed.

## GUIDE 25 SPONTANEOUSLY COMBUSTIBLE SUBSTANCES (Air and/or water reactive)

### HAZARDS

**Fire or explosion**

- May ignite on contact with air, moist air or water.
- May react vigorously or explosively on contact with water.
- May produce flammable, toxic, and/or corrosive gases on contact with air, moist air or water.
- May re-ignite after fire is extinguished.
- Fire will produce irritating, toxic, and/or corrosive gases.
- Containers may explode when heated.
- Runoff may create multiple fire or explosion hazard.
- May decompose explosively (D) when heated or involved in a fire.
- May be kept in a protective medium.

**Health**

- Inhalation or contact with vapour, substance or decomposition products may cause severe injury or death.
- Contact with molten substance may cause severe burns.
- Some effects may be experienced due to skin absorption.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and fully-encapsulating, gas-tight suit when handling these substances.
- Always wear thermal protective clothing when handling molten substances
- Structural firefighter's uniform will only provide limited protection.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 25 SPONTANEOUSLY COMBUSTIBLE SUBSTANCES (Air and/or water reactive)

### EMERGENCY RESPONSE

**Fire**

- DO NOT USE WATER, $CO_2$ OR FOAM ON SUBSTANCE ITSELF.
- Try to exclude oxygen.

**Small fire**

- Use dry chemical, soda ash or lime.

**Large fire**

- Use **DRY** sand, dry chemical, soda ash or lime or withdraw and let fire burn.
- If safe to do so, move undamaged containers from fire area.
- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers or in contact with substance.

  **Caution**: Dithionite (hydrosulphite) fires may require flooding with water in order to eliminate hazardous reactions since the substances generate their own oxygen. Smothering with DRY sand may be ineffective.

**Fire involving tanks**

- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

**Spill or leak**

- Try to exclude oxygen.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 25 m.
- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Cover with DRY earth, sand or other dry, non-combustible material.
- Keep the spill compact. Do not permit material to scatter or spread.

**Small spill**

- Cover with DRY earth, sand or other non-combustible material followed by a plastic sheet to minimise spreading or contact with rain.
- Use clean non-sparking tools to collect absorbed material and place it into loosely-covered metal or plastic containers for later disposal.
- Water spray may be used to knock down vapours or divert vapour clouds.
- DO NOT GET WATER inside containers or in contact with substance.

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of the product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) may be delayed.

## GUIDE 26 WATER REACTIVE SUBSTANCES (Evolving flammable gases)

### HAZARDS

**Fire or explosion**

- Produce flammable substances on contact with water.
- May ignite on contact with water or moist air.
- May react vigorously or explosively on contact with water.
- May be ignited by heat, sparks or flame.
- May re-ignite after fire is extinguished.
- Some are kept in or under flammable liquids.
- Fire will produce irritating, toxic, and/or corrosive gases.
- Containers may explode when heated.
- Runoff may create multiple fire or explosion hazard.

**Health**

- Inhalation or contact with vapour, substance or decomposition products may cause severe injury or death.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform may provide limited protection.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep unauthorised personnel away.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 500 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 26 WATER REACTIVE SUBSTANCES (Evolving flammable gases)

### EMERGENCY RESPONSE

**Fire**

- DO NOT USE WATER OR FOAM.

**Small fire**

- Use dry chemical, soda ash, lime or sand.
- If safe to do so, move undamaged containers from fire area.

**Large fire**

- Use **DRY** sand, dry chemical, soda ash or lime or withdraw and let fire burn.
- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.
- Magnesium fire
- Use **DRY** sand, graphite powder or Met-L-X powder.

**Lithium fire**

- Use **DRY** sand, graphite powder or Lith-L-X powder.

**Fire involving tanks**

- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 25 m.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Water spray may be used to knock down vapours or divert vapour clouds.
- DO NOT GET WATER inside containers or in contact with substance.

**Small spill**

- Cover with DRY earth, sand or other non-combustible material followed by a plastic sheet to minimise spreading or contact with rain.

**Large spill**

- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

## GUIDE 27 WATER REACTIVE SUBSTANCES (Evolving flammable/toxic gases)

### HAZARDS

**Fire or explosion**

- Produce flammable and toxic substances on contact with water.
- May ignite on contact with water or moist air.
- May react vigorously or explosively on contact with water.
- May be ignited by heat, sparks or flame.
- May re-ignite after fire is extinguished.
- Some are kept in or under flammable liquids.
- Fire will produce irritating, toxic, and/or corrosive gases.
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

**Health**

- TOXIC, MAY BE FATAL IF INHALED.
- Inhalation or contact with vapour, substance or decomposition products may cause severe injury or death.
- Runoff fire control or dilution water may pollute waterways.
- Will produce toxic and/or corrosive gases on contact with water.

### PROTECTIVE CLOTHING

- Wear SCBA and fully-encapsulating, gas-tight suit when handling these substances.
- Structural firefighter's uniform is NOT effective for these materials.
- SCBA and chemical splash suits will offer limited protection for brief exposure provided there is no risk of ignition.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 500 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 1500 m in all directions.

## GUIDE 27 WATER REACTIVE SUBSTANCES (Evolving flammable/toxic gases)

### EMERGENCY RESPONSE

**Fire**

- DO NOT USE WATER OR FOAM.

**Small fire**

- Use dry chemical, soda ash, lime or sand.
- If safe to do so, move undamaged containers from fire area.

**Large fire**

- Use **DRY** sand, dry chemical, soda ash or lime or withdraw and let fire burn.
- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.

**Fire involving tanks**

- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 25 m.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Water spray may be used to knock down vapours or divert vapour clouds.
- DO NOT GET WATER inside containers or in contact with substance.

**Small spill**

- Cover with DRY earth, sand or other non-combustible material followed by a plastic sheet to minimise spreading or contact with rain.

**Large spill**

- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

## GUIDE 28 WATER REACTIVE, OXIDIZING SUBSTANCES (Evolving toxic and/or corrosive substances)

### HAZARDS

**Fire or explosion**

- May ignite combustibles (wood, paper, clothing, and so on).
- May react vigorously or explosively on contact with water.
- Runoff may create fire or explosion hazard.
- Fire will produce irritating, toxic, and/or corrosive gases.
- Containers may explode when heated.
- Will accelerate burning when involved in a fire.
- Some will react explosively with hydrocarbons (fuels).

**Health**

- Inhalation or contact with vapour, substance or decomposition products may cause severe injury or death.
- Runoff from fire control or dilution water may pollute waterways.
- May produce toxic, and/or corrosive gases on contact with water.

### PROTECTIVE CLOTHING

- Wear SCBA and fully-encapsulating, gas-tight suit when handling these substances.
- Structural firefighter's uniform is NOT effective for these materials.
- SCBA and chemical splash suits will offer limited protection for brief exposure.

### PUBLIC SAFETY

- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 1500 m in all directions.

## GUIDE 28 WATER REACTIVE, OXIDIZING SUBSTANCES (Evolving toxic and/or corrosive substances)

## EMERGENCY RESPONSE

**Fire**

- DO NOT USE WATER OR FOAM.

**Small fire**

- Use dry chemical, soda ash, lime or sand.
- If safe to do so, move undamaged containers from fire area.

**Large fire**

- Use **DRY** sand, dry chemical, soda ash or lime or withdraw and let fire burn.
- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.

**Fire involving tanks**

- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 15 m.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Water spray may be used to knock down vapours or divert vapour clouds.
- DO NOT GET WATER inside containers or in contact with substance.

**Small spill**

- Cover with DRY earth, sand or other non-combustible material followed by a plastic sheet to minimise spreading or contact with rain.

**Large spill**

- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

## GUIDE 29 METALS – Powders, dusts, shavings, borings, turnings or cuttings

### HAZARDS

**Fire or explosion**

- May explode from heating, shock, friction or contamination.
- May be ignited by friction, heat, sparks or flame.
- Dust or fumes may form explosive mixtures with air.
- Will burn with intense heat.
- May re-ignite after fire is extinguished.
- Fire may produce irritating, toxic, and/or corrosive gases.
- Containers may explode when heated.
- May react explosively with water.
- Some may decompose explosively (D) or polymerise violently (P) when heated or involved in a fire.

**Health**

- Inhalation or contact with vapour, substance or decomposition products may cause severe injury or death.
- Runoff from fire control or dilution water may pollute waterways.
- Oxides from metallic fires are a severe health hazard.

### PROTECTIVE CLOTHING

- Wear SCBA.
- Structural firefighter's uniform will only provide limited protection.

### PUBLIC SAFETY

- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 50 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 29 METALS – Powders, dusts, shavings, borings, turnings or cuttings

### EMERGENCY RESPONSE

**Fire**

- **DO NOT USE WATER, FOAM or $CO_2$.**
- Dousing a metallic fire with water may generate hydrogen gas, an extremely dangerous explosion hazard, particularly if fire is in a confined are (for example building, cargo hold, and so on).
- Use **DRY** sand, graphite powder, dry sodium chloride based extinguishers, G-1 or Met-L-X to smother fire.
- Confining or smothering metal fire is preferable to applying water.
- If safe to do so, move undamaged containers from fire area.

**Fire involving tanks**

- If impossible to extinguish, protect surroundings and allow fire to burn.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 25 m.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confirmed areas.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care.
- Ensure that attending medical personnel are aware of the identity and nature of product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) may be delayed.

## GUIDE 30 | GALLIUM AND MERCURY

### HAZARDS

**Fire or explosion**

- Does not burn but may produce corrosive and/or toxic fumes upon heating.
- Fire will produce irritating, toxic, and/or corrosive gases.
- Runoff will pollute waterways.

**Health**

- Inhalation of vapours or contact with substance will result in contamination and potential harmful effects.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform will provide limited protection.

### PUBLIC SAFETY

- Spill or leak area should be isolated immediately for at least 10 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 25 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 500 m in all directions.

## GUIDE 30 | GALLIUM AND MERCURY

### EMERGENCY RESPONSE

| | |
|---|---|
| **Fire** | • Use extinguishing agent suitable for type of surrounding fire.<br>• **Do not** direct water at heated material. |
| **Spill or leak** | • Do not touch or walk through spilled material.<br>• Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.<br>• Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.<br>• Do not use steel or aluminium tools or equipment.<br>• Cover with earth, sand or other non-combustible material followed by plastic sheet to minimise spreading or contact with rain.<br>• Seek expert advice before handling mercury – Use a mercury spill kit if available.<br>• Clean up bulk of spill using mechanical means – Residual mercury may be reacted with calcium sulphide (mercury spill kit).<br>• **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.** |
| **First aid** | • Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.<br>• Remove and isolate contaminated clothing and shoes immediately.<br>• In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.<br>• Keep victim warm and quiet – Obtain immediate medical care.<br>• Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves. |

## GUIDE 31 | OXIDIZING SUBSTANCES

### HAZARDS

**Fire or explosion**

- Will accelerate burning when involved in a fire.
- May explode from heating, shock, friction or contamination.
- Chlorite, Chlorate and Perchlorate salts may react dangerously with hydrocarbons (fuels), organic matter, other contaminants or when hot, molten and confined; to form a mass explosive of Division 1.1. In this condition it should be treated as an explosive (see Guide 02) and the explosive public safety evacuation distances apply.
- May ignite combustibles (wood, paper, clothing, and so on).
- Fire may produce irritating, toxic, and/or corrosive gases.
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.
- May decompose explosively (D) when heated or involved in a fire.

**Health**

- Inhalation or contact with vapour, dusts or substance may cause severe injury, burns or death.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform will provide limited protection.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 100 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 31 | OXIDIZING SUBSTANCES

## EMERGENCY RESPONSE

### Fire

**Small fire**

- **USE FLOODING QUANTITIES OF WATER.**
- **Do not** use dry chemicals, $CO_2$ or foam.
- If safe to do so, move undamaged containers from fire area.
- **Do not** move cargo if cargo has been exposed to heat.

**Large fire**

- Flood fire area with water from a protected position.
- Cool containers with flooding quantities of water until well after fire is out – If impossible, withdraw from area and let fire burn.
- Avoid getting water inside containers: a violent reaction may occur.
- Dam fire control water for later disposal.
- ALWAYS stay away from tank ends.

### Spill or leak

- Do not contaminate.
- Keep combustibles (wood, paper, clothing, oil, and so on) away from spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Use water spray to knock down vapours or divert vapour clouds.
- Prevent entry into waterways, drains or confined areas.
- Prevent exposure to heat.

**Dry spill**

- Use clean non-sparking tools to transfer material to a clean, dry plastic container and cover loosely.
- Move container from spill area.

**Small liquid spill**

- Use a non-combustible material like vermiculite, sand or earth to soak up the product and place in a loosely-covered container for later disposal.

**Large liquid spill**

- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

### First aid

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- Remove material from skin immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care.
- Ensure that attending medical personnel are aware of identity and nature of the product(s) involved, and take precautions to protect themselves.

## GUIDE 32 | ORGANIC PEROXIDES

### HAZARDS

**Fire or explosion**

- May explode from heating, shock, friction or contamination.
- Some will react explosively with hydrocarbons (fuels).
- May ignite combustibles (wood, paper, clothing, and so on).
- May be ignited by heat, sparks or flames.
- May burn rapidly with flare-burning effect.
- Fire will produce irritating, toxic, and/or corrosive gases.
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

**Health**

- Contact of vapour or substance with eyes may cause blindness within minutes.
- **PROTECT EYES UNTIL DECONTAMINATION IS OVER.**
- Inhalation or contact with vapour, dusts or substance may cause severe injury, burns or death.
- Toxic fumes or dust may accumulate in confined areas (basements, tanks, silos, and so on).
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform will only provide limited protection.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 250 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 100 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 1000 m in all directions.

## GUIDE 32 | ORGANIC PEROXIDES

## EMERGENCY RESPONSE

### Fire

**Small fire**

- Use water spray, foam, $CO_2$ or dry chemical.
- Do not use water jets.
- If safe to do so, move undamaged containers from fire area.
- **Do not** move cargo if cargo has been exposed to heat.

**Large fire**

- Flood fire area with water from a distance.
- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out – If impossible, withdraw from area and let fire burn.
- ALWAYS stay away from tank ends.

### Spill or leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Keep combustibles (wood, paper, clothing, oil, and so on) away from spilled material.
- Do not touch or walk through spilled material.
- Keep substance wet using water spray.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Use water spray to knock down vapours or divert vapour clouds.
- Use clean non-sparking tools to collect material and place it into loosely-covered plastic containers for later disposal.
- Absorb with earth, sand or other non-combustible material and transfer to container.

### First aid

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- Remove material from skin immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care.
- Ensure that attending medical personnel are aware of the identity and nature of product(s) involved, and take precautions to protect themselves.

## GUIDE 33 ORGANIC PEROXIDES
### Temperature controlled

## HAZARDS

**Fire or explosion**

- Particularly sensitive to temperature rises – Above a given control temperature they decompose violently and catch fire – The specific control temperature must not be exceeded.
- May explode from heating, shock, friction or contamination.
- May ignite combustibles (wood, paper, clothing, and so on).
- May be ignited by heat, sparks or flames.
- May burn rapidly with flare-burning effect.
- Fire may produce irritating, toxic, and/or corrosive gases.
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

**Health**

- Contact with vapour or substance may cause severe burns to eyes.
- Inhalation, ingestion or contact with substance may cause severe injury or death.
- Runoff from fire control or dilution water may pollute waterways.

## PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform will provide limited protection.

## PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- **DO NOT ALLOW THE SUBSTANCE TO WARM UP.**
- The specified control temperature must not be exceeded at any time.
- Use dry ice or ice for cooling where necessary – Mains water supply is not usually a suitable cooling medium. Water must only be used for cooling when the control temperature of the substance is higher than the water temperature.
- If temperature cannot be controlled, consider evacuation.
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 300 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 1000 m in all directions.

## EMERGENCY RESPONSE

| | |
|---|---|
| | • Water must only be used for cooling where the control temperature of the substance is higher than the water temperature. |
| **Fire** | **Small fire**<br>• Use water spray, foam, $CO_2$ or dry chemical.<br>• Do not use water jets.<br>• Do not move cargo if cargo has been exposed to heat.<br>**Large fire**<br>• Flood fire area with water from a distance.<br>• If safe to do so, move undamaged containers from fire area.<br>• Cool containers with flooding quantities of water until well after fire is out.<br>**Fire involving tanks**<br>• Fight fire from protected position or use unmanned hose holders or monitor nozzles.<br>• When impossible, withdraw from area and let fire burn.<br>• BEWARE OF POSSIBLE CONTAINER EXPLOSION.<br>• ALWAYS stay away from tank ends. |
| **Spill or leak** | • ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).<br>• Keep combustibles (wood, paper, clothing, oil, and so on) away from spilled material.<br>• Do not touch or walk through spilled material.<br>• Keep substance wet using water spray.<br>• Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.<br>• Use water spray to knock down vapours or divert vapour clouds.<br>• Use clean non-sparking tools to collect material and place it into loosely-covered plastic containers for later disposal.<br>• Absorb with earth, sand or other non-combustible material and transfer to container.<br>• **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.** |
| **First aid** | • Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.<br>• Remove contaminated clothing and shoes immediately.<br>• Remove material from skin immediately.<br>• In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.<br>• Keep victim warm and quiet – Obtain immediate medical care.<br>• Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves. |

## GUIDE 34 | TOXIC SUBSTANCES

### HAZARDS

**Fire or explosion**

- Material does not burn.
- Fire or heat will produce irritating, toxic, and/or corrosive gases.
- Runoff may pollute waterways.

**Health**

- TOXIC, MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH SKIN.
- Inhalation, ingestion or contact with substance may cause severe injury or death.
- Effects of contact or inhalation may be delayed.
- Runoff from fire control or dilution water may be toxic and/or corrosive and pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Fully-encapsulating, gas-tight suits should be worn for maximum protection.
- Structural firefighter's uniform is NOT effective for these materials.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 800 m in all directions.

## EMERGENCY RESPONSE

| | |
|---|---|
| **Fire** | **Small fire**<br>• Use dry chemical, $CO_2$ or water spray.<br>• If safe to do so, move undamaged containers from fire area.<br>**Large fire**<br>• Use water spray, fog or foam – Do not use water jets.<br>• Cool containers with flooding quantities of water until well after fire is out.<br>• Avoid getting water inside containers.<br>**Fire involving tanks**<br>• Fight fire from protected position or use unmanned hose holders or monitor nozzles.<br>• Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.<br>• ALWAYS stay away from tank ends. |
| **Spill or leak** | • Do not touch or walk through spilled material.<br>• Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.<br>• Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.<br>• Cover with plastic sheet to prevent spreading.<br>• Absorb with earth, sand or other non-combustible material and transfer to container.<br>• DO NOT GET WATER INSIDE CONTAINERS.<br>• **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.** |
| **First aid** | • Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.<br>• Remove contaminated clothing and shoes immediately.<br>• In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.<br>• For minor skin contact, avoid spreading material on unaffected skin.<br>• Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of the product(s) involved, and take precautions to protect themselves.<br>• CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER). |

## GUIDE 35 | TOXIC AND COMBUSTIBLE SUBSTANCES

### HAZARDS

**Fire or explosion**

- May burn but do not ignite readily.
- Containers may explode when heated.
- Runoff may pollute waterways.
- May be transported in a molten form.
- Fire will produce irritating, toxic, and/or corrosive gases.
- Some may decompose explosively (D) or polymerise violently (P) when heated or involved in a fire.

**Health**

- TOXIC, MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH SKIN.
- Inhalation, ingestion or contact with substance may cause severe injury or death.
- Effects of contact or inhalation may be delayed.
- Contact with molten substance may cause severe burns.
- Runoff from fire control or dilution water may be toxic and/or corrosive and pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Fully-encapsulating, gas-tight suits should be worn for maximum protection.
- Structural firefighter's uniform is NOT effective for these materials.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 800 m in all directions.

## EMERGENCY RESPONSE

| | |
|---|---|
| **Fire** | **Small fire**<br>• Use dry chemical, $CO_2$ or water spray.<br>• If safe to do so, move undamaged containers from fire area.<br>**Large fire**<br>• Use water spray, fog or foam – Do not use water jets.<br>• Cool containers with flooding quantities of water until well after fire is out.<br>• Avoid getting water inside containers.<br>**Fire involving tanks**<br>• Fight fire from protected position or use unmanned hose holders or monitor nozzles.<br>• Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.<br>• ALWAYS stay away from tank ends. |
| **Spill or leak** | • ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 15 m.<br>• Do not touch or walk through spilled material.<br>• Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.<br>• Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.<br>• Cover with plastic sheet to prevent spreading.<br>• Absorb with earth, sand or other non-combustible material and transfer to container.<br>• DO NOT GET WATER INSIDE CONTAINERS.<br>• **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.** |
| **First aid** | • Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.<br>• Remove contaminated clothing and shoes immediately.<br>• In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.<br>• For minor skin contact, avoid spreading material on unaffected skin.<br>• Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.<br>• CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER). |

## GUIDE 36 TOXIC AND/OR CORROSIVE SUBSTANCES
**Combustible**

### HAZARDS

**Fire or explosion**

- May burn but do not ignite readily.
- Containers may explode when heated.
- When heated, vapours may form explosive mixtures with air.
- Contact with metals may evolve flammable hydrogen gas.
- Runoff may pollute waterways.
- May be transported in a molten form.
- Fire will produce irritating, toxic, and/or corrosive gases.
- Some may decompose explosively (D) or polymerise violently (P) when heated or involved in a fire.

**Health**

- TOXIC, MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH SKIN.
- Inhalation, ingestion or contact with substance may cause severe injury or death.
- Contact with molten substance may cause severe burns.
- Runoff from fire control or dilution water may be toxic and/or corrosive and pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Fully-encapsulating, gas-tight suits should be worn for maximum protection.
- Structural firefighter's uniform is NOT effective for these materials.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 36 | TOXIC AND/OR CORROSIVE SUBSTANCES
**Combustible**

## EMERGENCY RESPONSE

### Fire

**Small fire**

- Use dry chemical, $CO_2$ or water spray.
- If safe to do so, move undamaged containers from fire area.

**Large fire**

- Use dry chemical, $CO_2$, foam or water spray – Do not use water jets.
- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.

**Fire involving tanks**

- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

### Spill or leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 15 m.
- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Cover with plastic sheet to prevent spreading.
- Absorb with earth, sand or other non-combustible material and transfer to container.
- DO NOT GET WATER INSIDE CONTAINERS.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

### First aid

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

## GUIDE 37 | TOXIC AND/OR CORROSIVE SUBSTANCES
**Non-combustible**

### HAZARDS

**Fire or explosion**

- Material does not burn.
- Fire or heat will produce irritating, toxic, and/or corrosive gases.
- Containers may explode when heated.
- Some may ignite combustibles (wood, paper, clothing, and so on)
- Contact with metals may evolve flammable hydrogen gas.
- Some may decompose explosively (D) or polymerise violently (P) when heated or involved in a fire.

**Health**

- TOXIC, MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH SKIN.
- Inhalation, ingestion or contact with substance may cause severe injury or death.
- Contact with molten substance may cause severe burns.
- Runoff from fire control or dilution water may be toxic and/or corrosive and pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Fully-encapsulating, gas-tight suits should be worn for maximum protection.
- Structural firefighter's uniform is NOT effective for these materials.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 37 TOXIC AND/OR CORROSIVE SUBSTANCES
## Non-combustible

### EMERGENCY RESPONSE

**Fire**

**Small fire**

- Use dry chemical, $CO_2$ or water spray.
- If safe to do so, move undamaged containers from fire area.

**Large fire**

- Use dry chemical, $CO_2$, foam or water spray – Do not use water jets.
- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.

**Fire involving tanks**

- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 50 m.
- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Cover with DRY earth, sand or other non-combustible material followed by plastic sheet to minimise spreading or contact with rain.
- DO NOT GET WATER INSIDE CONTAINERS.

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

## GUIDE 38 — HIGHLY FLAMMABLE / FLAMMABLE, TOXIC AND/OR CORROSIVE SUBSTANCES (Water reactive)

### HAZARDS

**Fire or explosion**

- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flame.
- Will react with water (some violently) releasing flammable, toxic, and/or corrosive gases and runoff.
- Vapours will form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air and will collect in low or confined areas (drains, basements, tanks).
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated or contaminated with water.
- Fire will produce irritating, toxic, and/or corrosive gases.
- Vapours from runoff may create explosion hazard.
- Some may decompose explosively (D) or polymerise violently (P) when heated or involved in a fire.

**Health**

- TOXIC, MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH SKIN.
- Inhalation, ingestion or contact with vapours, dusts or material may cause severe injury or death.
- Effects of contact or inhalation may be delayed.
- Reaction with water or moist air will release toxic, corrosive or flammable gases.
- Reaction with water may generate heat which will increase the concentration of fumes in the air.
- Runoff from fire control or dilution water may be toxic and/or corrosive and pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Fully-encapsulating, gas-tight suits should be worn for maximum protection.
- Structural firefighter's uniform is NOT effective for these materials.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 38 HIGHLY FLAMMABLE / FLAMMABLE, TOXIC AND/OR CORROSIVE SUBSTANCES (Water reactive)

## EMERGENCY RESPONSE

### Fire

**Small fire**

- Use $CO_2$, dry chemical, dry sand or alcohol foam.
- If safe to do so, move undamaged containers from fire area.

**Large fire**

- Use alcohol foam, fog or water spray – Do not use water jets.
- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.

**Fire involving tanks**

- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

### Spill or leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 50 m – All equipment used when handling the product must be earthed.
- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Vapour-suppressing foam may be used to control vapours – Water spray may be used to knock down or divert vapour clouds.
- DO NOT GET WATER INSIDE CONTAINERS.

**Small spill**

- Cover with DRY earth, and or other non-combustible material followed by plastic sheet to minimise spreading or contact with rain.
- Use clean non-sparking tools to collect material and place it into loosely-covered plastic containers for later disposal.

### First aid

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

## GUIDE 39 TOXIC AND/OR CORROSIVE SUBSTANCES
### Combustible – Water reactive

## HAZARDS

**Fire or explosion**

- Will burn but do not ignite readily.
- Will react with water (some violently) releasing flammable, toxic, and/or corrosive gases and runoff.
- When heated, vapours may form explosive mixtures with air.
- Vapours may travel to source of ignition and flash back.
- Most vapours are heavier than air and will collect in low or confined areas (drains, basements, tanks).
- Containers may explode when heated or contaminated with water.
- Fire will produce irritating, toxic, and/or corrosive gases.
- Some may decompose explosively (D) or polymerise violently (P) when heated or involved in a fire.

**Health**

- TOXIC, MAY BE FATAL IF INHALED, SWALLOWED OR ABSORBED THROUGH SKIN.
- Inhalation, ingestion or contact with vapours, dusts or material may cause severe injury or death.
- Effects of contact or inhalation may be delayed.
- Reaction with water or moist air will release toxic, corrosive or flammable gases.
- Reaction with water may generate heat which will increase the concentration of fumes in the air.
- Runoff from fire control or dilution water may be toxic and/or corrosive and pollute waterways.

## PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Fully-encapsulating, gas-tight suits should be worn for maximum protection.
- Structural firefighter's uniform is NOT effective for these materials.

## PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 800 m in all directions.

## EMERGENCY RESPONSE

### Fire

NOTE – Foams contain water and may react with the material, releasing corrosive, flammable or toxic gases.

**Small fire**

- Use $CO_2$, dry chemical, dry sand or alcohol foam.
- If safe to do so, move undamaged containers from fire area.

**Large fire**

- Use alcohol foam, fog or water spray– Do not use water jets.
- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.

**Fire involving tanks**

- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

### Spill or leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 50 m.
- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Vapour-suppressing foam may be used to control vapours – Water spray may be used to knock down or divert vapour clouds – Do not direct water at spill or source of leak.

**Small spill**

- Cover with DRY earth, and or other non-combustible material followed by plastic sheet to minimise spreading or contact with rain.
- Use clean non-sparking tools to collect material and place it into loosely-covered plastic containers for later disposal.

### First aid

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of the product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

## GUIDE 40 TOXIC AND/OR CORROSIVE SUBSTANCES
### Non-combustible – Water reactive

## HAZARDS

**Fire or explosion**

- Does not burn but may produce toxic and/or corrosive fumes upon heating.
- Heat of reaction may be enough to ignite combustible materials.
- Will react with water (some violently) releasing flammable, toxic, and/or corrosive gases and runoff.
- Contact with metals may evolve flammable hydrogen gas.
- Fire will produce irritating, toxic, and/or corrosive gases.
- Runoff may pollute waterways.
- May be transported in a molten form.
- Containers may explode when heated or contaminated with water.

**Health**

- Inhalation, ingestion or contact with substance may cause severe injury or death.
- Contact with molten substance may cause severe burns.
- Reaction with water may generate heat which will increase the concentration of fumes in the air.
- Vapours may accumulate in confined areas (drains, basements, tanks, hoppers).
- Runoff from fire control or dilution water may be toxic, and/or corrosive and pollute waterways.

## PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform is NOT effective for these materials.

## PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Ventilate enclosed spaces before entering.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 250 m.

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 40 TOXIC AND/OR CORROSIVE SUBSTANCES
## Non-combustible – Water reactive

### EMERGENCY RESPONSE

**Fire**

- When material is not involved in fire, do not use water on material itself.

**Small fire**

- Use $CO_2$ (except for barium oxide), dry chemical, dry sand or flooding quantities of water.
- If safe to do so, move undamaged containers from fire area.

**Large fire**

- Flood fire area with large quantities of water while knocking down vapours with water fog – If insufficient water supply, knock down vapours only.
- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.

**Fire involving tanks**

- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

**Spill or leak**

- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
- Vapour-suppressing foam may be used to control vapours – Water spray may be used to knock down or divert vapour clouds.
- DO NOT GET WATER INSIDE CONTAINERS.

**Small spill**

- Cover with DRY earth, and or other non-combustible material followed by plastic sheet to minimise spreading or contact with rain.
- Use clean non-sparking tools to collect material and place it into loosely-covered plastic containers for later disposal.

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER).

## GUIDE 41 | INFECTIOUS SUBSTANCES

### HAZARDS

**Fire or explosion**

- Some are transported in highly flammable liquids.
- May contain materials of other classes for example toxic, corrosives and combustibles

**Health**

- Inhalation or contact with substance may cause infection, disease or death.
- Runoff from fire control or dilution water may pollute waterways.

  NOTE – Damaged packages containing solid $CO_2$ as a refrigerant are likely to produce water or frost from condensation of air. Do not touch this liquid as it could be contaminated by the contents of the package.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform will provide limited protection.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Obtain identity of material(s) involved.

**Evacuation**

**Fire**

- When any large containers (including rail and road tankers) are involved in a fire, consider initial evacuation of areas within 100 m in all directions.

## GUIDE 41 | INFECTIOUS SUBSTANCES

## EMERGENCY RESPONSE

| | |
|---|---|
| **Fire** | **Small fire**<br>• Use dry chemical, soda ash or lime.<br>**Large fire**<br>• Use extinguishing agent suitable for type of surrounding fire. |
| **Spill or leak** | • Do not touch or walk through spilled material.<br>• Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.<br>• Prevent entry into waterways, drains or confined areas.<br>• Absorb with earth, sand or other non-combustible material and transfer to container.<br>• Cover damaged packages or spilled material with cloth wetted with bleach or other disinfectant and add additional bleach once covered.<br>• **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.** |
| **First aid** | • Remove victim to safe isolated area.<br>**Caution: Victim may be a source of contamination.**<br>• Remove and isolate contaminated clothing and shoes immediately.<br>• In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.<br>• CONTACT LOCAL HEALTH AUTHORITY FOR FURTHER ADVICE.<br>• Shower and wash with soap and water.<br>• Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of the product(s) involved, and take precautions to protect themselves.<br>• Effects of exposure (inhalation, ingestion or skin contact) may be delayed. |

## GUIDE 42 | RADIOACTIVE MATERIALS

### HAZARDS

**Fire or explosion**

- **RADIOACTIVE MATERIALS MAY ALSO BE FLAMMABLE, TOXIC, CORROSIVE OR REACTIVE.**
- Fire may produce radioactive and toxic gases and dusts.
- Radioactivity does not affect flammability or any other properties of the materials.

**Health**

- Inhalation of gases or airborne particles, ingestion or contact with radioactive material will result in contamination.
- May be toxic and/or corrosive to skin.
- Prolonged exposure may cause severe injury or death.
- Degree of radiation hazard will vary from high to low, depending on the type and quantity of radioactive material and type of packaging.
- Some radioactive materials cannot be detected by commonly available instruments.
- Effects of contact or inhalation may be delayed.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform is NOT effective for these materials.
- Maximize use of shielding and distance between material and personnel.
- Limit entry to shortest possible time.
- Alternate persons for entry if possible.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Isolate any uninjured person and equipment suspected of being contaminated and delay any clean-up procedures until instructed by the National Radiation Laboratory (NRL)/Health Department.

**Evacuation**

**Fire**

- When a large quantity of this material is involved in a major fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 42 | RADIOACTIVE MATERIALS

## EMERGENCY RESPONSE

### Fire

- Maximise use of shielding and distance between radioactive material and personnel.
- Limit entry into contaminated areas to shortest possible time.
- Alternate persons for entry into contaminated areas if possible.
- **DO NOT USE WATER OR FOAM ON MATERIAL ITSELF.**

**Small fire**

- Use dry chemical, $CO_2$, water spray or foam.
- If safe to do so, move undamaged containers from fire area.

**Large fire**

- Use water spray, fog or foam.
- Do not scatter material.
- Dam fire-control water for later disposal.
- Do not move damaged containers or packages.
- Cool containers with flooding quantities of water until well after fire is out.

### Spill or leak

- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Prevent entry into waterways, drains or confined areas.
- Cover powder spill with plastic sheet or tarp to minimise spreading.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

### First aid

- Remove victim to safe isolated area – Wrap victim in sheet or blanket before transporting.

  **Caution: Victim may be a source of contamination.**
- Remove and isolate contaminated clothing and shoes immediately.
- Isolate any material used for victim care for later disposal according to instructions of National Radiation Laboratory (NRL)/Health Department.
- In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.
- Shower and wash with soap and water.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) may be delayed.

## GUIDE 43 | RADIOACTIVE MATERIALS
### Low level of radiation

## HAZARDS

**Fire or explosion**

- **RADIOACTIVE MATERIALS MAY ALSO BE FLAMMABLE, TOXIC, CORROSIVE OR REACTIVE.**
- May burn but do not ignite readily.
- Fire may produce radioactive and toxic gases and dusts.
- Radioactivity does not affect flammability or any other properties of the materials.

**Health**

- Inhalation of gases or airborne particles, ingestion or contact with radioactive material will result in contamination.
- Degree of radiation hazard will vary from high to low, depending on the type and quantity of radioactive material and type of packaging.
- Some radioactive materials cannot be detected by commonly available instruments.
- Effects of contact or inhalation may be delayed.
- Runoff from fire control or dilution water may pollute waterways.

## PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform is NOT effective for these materials.
- Maximize use of shielding and distance between material and personnel.
- Limit entry to shortest possible time.

## PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 15 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Isolate any uninjured person and equipment suspected of being contaminated and delay any clean-up procedures until instructed by the National Radiation Laboratory (NRL)/Health Department.

**Evacuation**

**Fire**

- When a large quantity of this material is involved in a major fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 43 RADIOACTIVE MATERIALS
### Low level of radiation

## EMERGENCY RESPONSE

**Fire**

- Maximise use of shielding and distance between radioactive material and personnel.
- Limit entry into contaminated areas to shortest possible time.
- Alternate persons for entry into contaminated areas if possible.

**Small fire**

- Use dry chemical, $CO_2$, water spray or foam.
- If safe to do so, move undamaged containers from fire area.

**Large fire**

- Use water spray, fog or foam.
- Do not scatter material.
- Dam fire-control water for later disposal.
- Do not move damaged containers or packages.
- Cool containers with flooding quantities of water until well after fire is out.

**Spill or leak**

- Do not direct water at source of spill or leak as this will scatter the material.
- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Prevent entry into waterways, drains or confined areas.
- Cover powder spill with plastic sheet or tarp to minimise spreading.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to safe isolated area – Wrap victim in sheet or blanket before transporting.

  **Caution: Victim may be a source of contamination.**
- Remove and isolate contaminated clothing and shoes immediately.
- Isolate any material used for victim care for later disposal according to instructions of National Radiation Laboratory (NRL)/Health Department.
- In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.
- Shower and wash with soap and water.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) may be delayed.

## GUIDE 44 RADIOACTIVE MATERIALS
### Oxidizing

## HAZARDS

**Fire or explosion**

- May ignite combustibles (wood, paper, clothing, and so on).
- Will accelerate burning when involved in a fire.
- Fire may produce radioactive and toxic gases and dusts.
- Radioactivity does not affect flammability or any other properties of the materials.
- Runoff may create fire or explosion hazard.

**Health**

- Contact with material may cause severe burns.
- Inhalation of gases or airborne particles, ingestion or contact with radioactive material will result in contamination.
- Degree of radiation hazard will vary from high to low, depending on the type and quantity of radioactive material and type of packaging.
- Some radioactive materials cannot be detected by commonly available instruments.
- Effects of contact or inhalation may be delayed.
- Runoff from fire control or dilution water may pollute waterways.

## PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform is NOT effective for these materials.
- Maximize use of shielding and distance between material and personnel.
- Limit entry to shortest possible time.

## PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Isolate any uninjured person and equipment suspected of being contaminated and delay any clean-up procedures until instructed by the National Radiation Laboratory (NRL)/Health Department.

**Evacuation**

**Fire**

- When a large quantity of this material is involved in a major fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 44 | RADIOACTIVE MATERIALS
**Oxidizing**

## EMERGENCY RESPONSE

### Fire

- Maximise use of shielding and distance between radioactive material and personnel.
- Limit entry into contaminated areas to shortest possible time.
- Alternate persons for entry into contaminated areas if possible.

**Small fire**

- **Do not** use dry chemicals, $CO_2$ or foam.
- If safe to do so, move undamaged containers from fire area.
- **Do not** move damaged containers or packages.

**Large fire**

- Flood fire area with water from a protected position.
- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.
- Dam fire control water for later disposal.

### Spill or leak

- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Keep combustibles (wood, paper, clothing, oil, and so on) away from spilled material.
- Cover powder spill with plastic sheet or tarp to minimise spreading.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

### First aid

- Remove victim to safe isolated area – Wrap victim in sheet or blanket before transporting.

  **Caution: Victim may be a source of contamination.**
- Remove and isolate contaminated clothing and shoes immediately.
- Isolate any material used for victim care for later disposal according to instructions of National Radiation Laboratory (NRL)/Health Department.
- In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.
- Shower and wash with soap and water.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) may be delayed.

## GUIDE 45 RADIOACTIVE MATERIALS
### Spontaneously combustible (pyrophoric)

## HAZARDS

**Fire or explosion**

- Will ignite spontaneously when exposed to air.
- Extremely flammable.
- May burn rapidly with flare-burning effect.
- May re-ignite after fire is extinguished.
- Fire may produce radioactive and toxic gases and dusts.
- Containers may explode when heated.
- Radioactivity does not affect flammability or any other properties of the materials.

**Health**

- Low level radioactive material: degree of radiation hazard to personnel is low.
- Inhalation of gases or airborne particles, ingestion or contact with radioactive material will result in contamination.
- Some radioactive materials cannot be detected by commonly available instruments.
- Effects of contact or inhalation may be delayed.
- Runoff from fire control or dilution water may pollute waterways.

## PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform is NOT effective for these materials.
- Maximize use of shielding and distance between material and personnel.
- Limit entry to shortest possible time.
- Alternate persons for entry if possible.

## PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Isolate any uninjured person and equipment suspected of being contaminated and delay any clean-up procedures until instructed by the National Radiation Laboratory (NRL)/Health Department.

**Evacuation**

**Fire**

- When a large quantity of this material is involved in a major fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 45 RADIOACTIVE MATERIALS
### Spontaneously combustible (pyrophoric)

## EMERGENCY RESPONSE

**Fire**

- Maximise use of shielding and distance between radioactive material and personnel.
- Limit entry into contaminated areas to shortest possible time.
- Alternate persons for entry into contaminated areas if possible.
- **DO NOT USE WATER OR FOAM.**

**Small fire**

- Use dry chemical, DRY sand or calcium/magnesium fluoride.
- If safe to do so, move undamaged containers from fire area.
- **Do not** move damaged containers or packages.

**Large fire**

- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.
- Dam fire control water for later disposal.

**Spill or leak**

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 25 m.
- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Prevent entry into waterways, drains or confined areas.
- Cover powder spill with plastic sheet or tarp to minimise spreading.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to safe isolated area – Wrap victim in sheet or blanket before transporting.

  **Caution: Victim may be a source of contamination.**
- Remove and isolate contaminated clothing and shoes immediately.
- Isolate any material used for victim care for later disposal according to instructions of the National Radiation Laboratory (NRL)/Health Department.
- In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.
- Shower and wash with soap and water.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) may be delayed.

## GUIDE 46 RADIOACTIVE MATERIALS
## Uranium hexafluoride UF6 (water reactive)

### HAZARDS

**Fire or explosion**

- Does not burn.
- Reacts violently with water to produce toxic and corrosive hydrogen fluoride gas.
- Containers may explode when heated.
- Radioactivity does not affect flammability or any other properties of the material.

**Health**

- Low level radioactive material: degree of radiation hazard to personnel is low.
- Some radioactive materials cannot be detected by commonly available instruments.
- Effects of contact or inhalation may be delayed.
- Reacts violently with water and water vapour in air to form a white cloud of highly corrosive and toxic hydrogen fluoride gas and an extremely irritating residue.
- Prolonged exposure may cause severe injury or death.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform is NOT effective for these materials.
- Maximize use of shielding and distance between material and personnel.
- Limit entry to shortest possible time.
- Alternate persons for entry if possible.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 50 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.
- Isolate any uninjured person and equipment suspected of being contaminated and delay any clean-up procedures until instructed by the National Radiation Laboratory (NRL)/Health Department.

**Evacuation**

**Fire**

- When a large quantity of this material is involved in a major fire, consider initial evacuation of areas within 800 m in all directions.

## GUIDE 46 RADIOACTIVE MATERIALS
## Uranium hexafluoride UF6 (water reactive)

### EMERGENCY RESPONSE

**Fire**

- Maximise use of shielding and distance between radioactive material and personnel.
- Limit entry into contaminated areas to shortest possible time.
- Alternate persons for entry into contaminated areas if possible.
- **DO NOT USE WATER OR FOAM ON MATERIAL ITSELF.**

**Small fire**

- Use dry chemical or $CO_2$.
- If safe to do so, move undamaged containers from fire area.
- Do not move damaged containers or packages.

**Large fire**

- Cool containers with flooding quantities of water until well after fire is out.
- Avoid getting water inside containers.
- Dam fire control water for later disposal.

**Spill or leak**

- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Prevent entry into waterways, drains or confined areas.
- Use pressurized $CO_2$ to blanket spilled material when confined.
- Use pressurized $CO_2$ or solid $CO_2$ (dry ice) to freeze leak at source.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to safe isolated area – Wrap victim in sheet or blanket before transporting.

  **Caution: Victim may be a source of contamination.**
- Remove and isolate contaminated clothing and shoes immediately.
- Isolate any material used for victim care for later disposal according to instructions of the National Radiation Laboratory (NRL)/Health Department.
- In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.
- Shower and wash with soap and water.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.
- Effects of exposure (inhalation, ingestion or skin contact) may be delayed.

## GUIDE 47 | LOW TO MODERATE HAZARD SUBSTANCES

### HAZARDS

**Fire or explosion**

- May burn but do not ignite readily.
- Runoff may pollute waterways.
- Fire may produce irritating, toxic, and/or corrosive fumes.
- Containers may explode when heated.

**Health**

- Inhalation or contact with substance may be harmful.
- Inhalation of asbestos dust may damage the lungs.
- Runoff from fire control or dilution water may pollute waterways.
- Substances may be stored or transported hot – Contact with substance may result in severe burns.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- SCBA and structural firefighter's uniform may provide limited protection.

### PUBLIC SAFETY

- Spill or leak area should be isolated immediately for at least 10 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Fire**

- When a large quantity of this material is involved in a major fire, consider initial evacuation of areas within 100 m in all directions.

## GUIDE 47 | LOW TO MODERATE HAZARD SUBSTANCES

### EMERGENCY RESPONSE

| | |
|---|---|
| **Fire** | **Small fire**<br>• Use dry chemical, $CO_2$, water spray or foam.<br>**Large fire**<br>• Use water spray, fog or foam.<br>• If safe to do so, move undamaged containers from fire area.<br>• Cool containers with flooding quantities of water until well after fire is out.<br>**Fire involving tanks**<br>• Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.<br>• ALWAYS stay away from tank ends. |
| **Spill or leak** | • Do not touch or walk through spilled material.<br>• Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.<br>• Water spray may be used to knock down or divert vapour clouds.<br>• Prevent dust cloud.<br>• Avoid inhalation of asbestos dust.<br>• **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.** |
| **First aid** | • Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.<br>• Remove contaminated clothing and shoes immediately.<br>• Remove material from skin immediately.<br>• In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.<br>• Keep victim warm and quiet – Obtain immediate medical care.<br>• Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves. |

## GUIDE 48 | POLYCHLORINATED BIPHENYLS (PCBs)

### HAZARDS

**Fire or explosion**

- May burn but do not ignite readily.
- Fire may produce irritating, toxic, and/or corrosive fumes.

**Health**

- Inhalation or contact with substances may be harmful.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and chemical splash suit.
- Structural firefighter's uniform will provide limited protection.

### PUBLIC SAFETY

- Spill or leak area should be isolated immediately for at least 15 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 50 m.

**Fire**

- When a large quantity of this material is involved in a major fire, consider initial evacuation of areas within 100 m in all directions.

## GUIDE 48 | POLYCHLORINATED BIPHENYLS (PCBs)

## EMERGENCY RESPONSE

### Fire

**Small fire**

- Use dry chemical, $CO_2$, water spray or foam.
- If safe to do so, move undamaged containers from fire area.

**Large fire**

- Use water spray, fog or foam.
- Cool containers with flooding quantities of water until well after fire is out.

**Fire involving tanks**

- Fight fire from protected position or use unmanned hose holders or monitor nozzles.
- Dam fire control water for later disposal.
- Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank.
- ALWAYS stay away from tank ends.

### Spill or leak

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 50 m.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.

**Small spill**

- Absorb with earth, sand or other non-combustible material and transfer to container.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

### First aid

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- Remove material from skin immediately.
- In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
- Keep victim warm and quiet – Obtain immediate medical care.
- Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.

## GUIDE 49 | AEROSOL DISPENSERS

### HAZARDS

**Fire or explosion**

- Heat or damage to containers may release flammable gases.
- Containers will explode when heated – Ruptured containers will rocket.
- Released gases may form explosive mixtures with air in a confined space.
- Released gases may travel to source of ignition and flash back.
- Fire may produce irritating, toxic, and/or corrosive gases.

**Health**

- High concentration of gas may cause dizziness or asphyxiation without warning.
- Some released gases are irritating, toxic or corrosive in high concentrations.
- Products released by the aerosol may be flammable, irritating, toxic, and corrosive.

### PROTECTIVE CLOTHING

- Wear SCBA and protective gloves.
- Structural firefighter's uniform will provide limited protection.
- If large amounts, or corrosive or toxic products are involved, wear SCBA and chemical splash suit.

### PUBLIC SAFETY

- Spill or leak area should be isolated immediately for at least 8 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Fire**

- When any large load is involved in a fire, consider initial evacuation of areas within 100 m in all directions.

## GUIDE 49 | AEROSOL DISPENSERS

## EMERGENCY RESPONSE

| | |
|---|---|
| **Fire** | **Small fire**<br>• Use water spray, dry chemical or $CO_2$.<br>**Large fire**<br>• Use water spray or fog.<br>• Fight fire from protected position or use unmanned hose holders or monitor nozzles.<br>• If safe to do so, move undamaged containers from fire area – Do not approach hot containers.<br>• Cool containers with water before handling.<br>• If impossible to extinguish fire, protect surroundings, withdraw from area and allow fire to burn. |
| **Spill or leak** | • ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 15 m.<br>• All equipment used when handling the product must be earthed.<br>• If water is available, spray leaking containers to reduce ignition hazard and disperse gas.<br>• Isolate area until gas has dispersed.<br>• Ventilate the area. |
| **First aid** | • Remove victim to fresh air – Apply resuscitation if victim is not breathing – **Do not use direct mouth-to-mouth method** if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device – Administer oxygen if breathing is difficult.<br>• Remove contaminated clothing and shoes immediately.<br>• In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.<br>• For minor skin contact, avoid spreading material on unaffected skin.<br>• Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of identity and nature of the product(s) involved, and take precautions to protect themselves.<br>• CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE (SEE INSIDE BACK COVER). |

## GUIDE 50 | AMMONIUM NITRATE

### HAZARDS

**Fire or explosion**

- Will not burn but will increase intensity of a fire.
- May react dangerously with hydrocarbons (fuels), organic matter, other contaminants or when hot, molten and confined: to form a mass explosive of Division 1.1. In this condition it should be treated as an explosive (see Guide 02) and the explosive public safety evacuation distances apply.
- May explode from heating or detonation if contaminated or confined.
- Fire may produce irritating, toxic, and/or corrosive gases.
- Rigid containers may explode when strongly heated. FIBCs will melt and not contain pressure under similar conditions.
- Runoff may create fire hazard.

**Health**

- When exposed to fierce heat, toxic oxides of nitrogen are given off.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- In absence of fire, wear overalls, safety glasses and protective gloves.
- In presence of fire, wear SCBA and chemical splash suit.
- Structural firefighter's uniform will provide limited protection.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).** In Australia, tell them 'Security Sensitive Ammonium Nitrate is involved in the incident.'
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within 100 m.

**Large fire**

- Consider initial evacuation of areas within at least 800 m in all directions.

## GUIDE 50 | AMMONIUM NITRATE

## EMERGENCY RESPONSE

| | |
|---|---|
| **Fire** | **Small fire**<br>• **Use flooding quantities of water, delivered as a heavy spray.** Maintain flow of water until mass has cooled.<br>• **Do not** use dry chemical or $CO_2$ or foam.<br>• If safe to do so, move undamaged containers from fire areas.<br>**Large fire**<br>• Flood fire areas with water from protected position or use unmanned hose holders or monitor nozzles.<br>• If impossible to extinguish fire, protect surroundings, withdraw from area and allow fire to burn.<br>• Do not attempt to smother smouldering spillage in any way.<br>• Ensure that any molten road bitumen has been adequately cooled with water before allowing graders and so on to work on clean-up |
| **Spill or leak** | • Do not contaminate material.<br>• Keep combustibles (oil, fuel, wood, paper, clothing) away from spilled material.<br>• Do not touch or walk through spilled material unless wearing appropriate protective clothing.<br>• Prevent entry into waterways, drains or confined areas. Prevent exposure to heat.<br>• Use clean tools to transfer material to clean, dry plastic container and cover loosely. Move container from spill area. |
| **First aid** | • Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.<br>• Remove contaminated clothing and shoes immediately.<br>• In case of contact with material, immediately flush eyes or skin with running water for at least 15 minutes.<br>• For minor skin contact, avoid spreading material on unaffected skin.<br>• Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.<br>• CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE. |

## GUIDE 51 AMMONIUM NITRATE EMULSION, GEL or SUSPENSION, intermediate for blasting explosives (UN 3375)

### HAZARDS

**Fire or explosion**

- Will burn when involved in an intense fire.
- May become sensitized with hydrocarbons (fuels), organic matter, other contaminants or when hot, molten and confined; to form a mass explosive of Division 1.1. In this condition it should be treated as an explosive (see Guide 02) and the explosive public safety evacuation distances apply.
- May explode from heating, shock, friction or contamination.
- Fire may produce irritating, toxic, and/or corrosive gases.
- Containers and trucks may explode when heated.
- Runoff may create fire or explosion hazard.
- May decompose explosively (D) when heated or involved in a fire.

**Health**

- Inhalation or contact with vapour arising from a fire may cause severe injury, burns or death.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- Wear SCBA and structural firefighter's uniform if product is burning.
- For cleanup duties where product is not burning, wear overalls, boots, safety glasses and impervious gloves.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).** In Australia, tell them 'Security Sensitive Ammonium Nitrate is involved in the incident.'
- Spill or leak area should be isolated immediately for at least 25 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and to higher ground.

**Evacuation**

**Large spill**

- Consider initial downwind evacuation of areas within at least 100 m.

**Large fire**

- When any large container (including road or rail tankers) is involved in a fire, consider initial evacuation of areas within at least 1000 m in all directions.

## GUIDE 51 AMMONIUM NITRATE EMULSION, GEL or SUSPENSION, intermediate for blasting explosives (UN 3375)

## EMERGENCY RESPONSE

**Fire**

**Small fire**

- Consider initial evacuation of areas within 500 m in all directions. Otherwise, use flooding quantities of water, delivered as a fine spray to control fire and cool adjacent areas.
- Do not use dry chemical or $CO_2$ or foam.
- If safe to do so, move undamaged containers from fire area.
- Do not move cargo if it has been exposed to heat.

**Large fire**

- Withdraw personnel and evacuate area within a 1000 m radius.
- Do not enter this zone until at least 1 hour after cessation of visible fire.

**Spill or leak**

- Do not contaminate material.
- Stop leak if safe to do so.
- Keep combustibles (oil, fuel, wood, paper, clothing) away from spilled material.
- Do not touch or walk through spilled material unless wearing appropriate protective clothing (overalls, safety glasses and impervious gloves).
- Prevent entry into waterways, drains or confined areas.
- Prevent exposure to heat.
- Avoid breathing vapours and contact with skin and eyes.
- Place spilt material into clean containers for later disposal.
- After clean-up, flush area with water.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush eyes with running water for at least 15 minutes.
- Wash affected skin thoroughly with soap and water.
- If skin is burnt, immerse affected area in water for 10 to 15 minutes – Treat for shock if necessary and bandage lightly with sterile dressing.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE.

## GUIDE 52 | DESENSITISED EXPLOSIVES – Liquids, solids and wetted solids

### HAZARDS

**Fire or explosion**

- May be ignited by heat sparks or flames.
- Will burn when involved in a fire.
- May explode from intense heating, shock, friction or contamination.
- Keep material wet with water or treat as an explosive (see Guide 02).
- Dried out material may explode when exposed to heat, flame, friction or shock. In this condition, treat as an explosive (see Guide 02).
- Where packaging is damaged or broken, treat as an explosive (see Guide 02).
- Fire may produce irritating, toxic, and/or corrosive gases.
- Runoff may create fire or explosion hazard.

**Health**

- Inhalation or contact with vapour arising from a fire may cause severe injury, burns or death.
- Runoff from fire control or dilution water may pollute waterways.

### PROTECTIVE CLOTHING

- SCBA and gas-tight suits should be worn when dealing with damaged or leaking containers where there is no risk of ignition.
- SCBA and structural firefighting uniform provide limited protection where there is a risk of ignition.

### PUBLIC SAFETY

- **IMMEDIATELY CONTACT POLICE OR FIRE BRIGADE (SEE INSIDE BACK COVER).**
- Spill or leak area should be isolated immediately for at least 100 m in all directions.
- Keep unauthorised personnel away.
- Keep upwind and at higher ground.
- Ventilate closed spaces before entering.

**Evacuation**

**Large spill**

- Consider evacuating areas downwind within 100 m.
- Contain spill.

**Large fire**

- When any large container is involved in a fire, consider initial evacuation for at least 1000 m in all directions.

## GUIDE 52 | DESENSITISED EXPLOSIVES – Liquids, solids and wetted solids

### EMERGENCY RESPONSE

**Fire**

**Small fire**

- Consider initial evacuation of areas within 500 m in all directions. Otherwise, use flooding quantities of water, delivered as a fine spray to control fire and cool adjacent areas.
- If safe to do so, move undamaged containers from fire area.
- Do not move cargo if it has been exposed to heat.

**Large fire**

- Withdraw personnel and evacuate area within a 1000 m radius.
- When any large container is on fire, do not fight fire and evacuate.
- Do not enter this zone until at least 1 hour after cessation of visible fire.

**Spill or leak**

- Eliminate all sources of ignition.
- All equipment used when handling the product must be earthed.
- Keep product wetted.
- Do not contaminate material.
- Stop leak if safe to do so.
- Keep combustibles (oil, fuel, wood, paper, clothing) away from spilled material.
- Do not touch or walk through spilled material unless wearing appropriate protective clothing (overalls, safety glasses and impervious gloves).
- Prevent entry into waterways, drains or confined areas.
- Prevent exposure to heat.
- Avoid breathing vapours and contact with skin and eyes.
- Place spilt material into clean containers for later disposal.
- **SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.**

**First aid**

- Remove victim to fresh air – Apply resuscitation if victim is not breathing – Administer oxygen if breathing is difficult.
- Remove contaminated clothing and shoes immediately.
- In case of contact with material, immediately flush eyes with running water for at least 15 minutes.
- Wash affected skin thoroughly with soap and water.
- If skin is burnt, immerse affected area in water for 10 to 15 minutes – Treat for shock if necessary and bandage lightly with sterile dressing.
- Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.
- CONTACT POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE FOR FURTHER ADVICE.

# NOTES

# 14. FIRST AID FOR CHEMICAL INCIDENTS

The following information outlines first aid for most dangerous goods incidents, except those involving radioactive substances. Different or additional measures to those given below are noted in the Guides. This section gives basic first aid information only, and is intended only as an immediate response to an incident until competent medical personnel can take over treatment.

Many chemicals have a rapid effect on people, so speed of response is vital. However, some substances may have a delayed effect.

Persons exposed to dangerous goods should be examined by competent medical personnel as soon as possible.

The five most common ways that people are exposed to a chemical are:

(a) **Inhalation** – breathing in the substance;

(b) **Ingestion** – swallowing the substance;

(c) **Skin contact** – having the substance touch the skin;

(d) **Eye contact** – getting the substance in the eyes;

(e) **Injection** – the skin being broken and the substance penetrating the skin.

It is important to recognise that not everyone injured in an incident involving dangerous goods has necessarily been exposed. Where possible, the level of exposure and the identity of the dangerous goods involved should be determined.

In all cases:

(f) Remove the victim from contaminated area (if safe to do so);

(g) Keep the victim warm and quiet;

(h) Treat the victim for shock, if necessary;

(i) Remove any contaminated clothing, including footwear;

(j) Do not attempt to give the victim liquids by mouth if they are unconscious;

(k) MINIMISE CONTACT WITH BODY FLUIDS WHENEVER POSSIBLE.

**Inhalation**

- If the victim is not breathing, apply resuscitation (see Cardiopulmonary Resuscitation in Section 15).
- Oxygen should be given only under supervision of a trained person.

  **WARNING: where the victim has inhaled or ingested a toxic substance, direct mouth to mouth resuscitation is not advised.**

**Ingestion**

- CONTACT THE POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE/ (SEE INSIDE BACK COVER), or local doctor.

- Do not induce vomiting unless advised to do so.

**Skin contact**

- Wash affected areas thoroughly with soap and water.

**Eye contact**

- Hold the eyelids open and gently flush with clean, running water for at least 15 minutes.
- Remove any contact lenses.

**Injection**

- CONTACT A DOCTOR OR POISONS INFORMATION CENTRE/NATIONAL POISONS CENTRE (SEE INSIDE BACK COVER).

**Burns**

Burns can result from fire and heat, from the corrosive properties of a substance, or from super cold contact ('frostbite').

- Immerse or flood affected area with cold water for 10 to 15 minutes.
- For frostbite, immediately bathe affected area in water (preferably lukewarm at about 35 ºC); immerse if possible.
- Do not forcibly separate skin from adhering material.

# 15. CARDIOPULMONARY RESUSCITATION (CPR)

## Initial response

- Ensure you, the patient and anyone else is not exposed to any danger. Make the area safe or remove patient to a safe place.
- Phone for an ambulance or get someone to do this for you. (See INSIDE BACK COVER)
- Check for response by firmly squeezing the patient's shoulders and asking the patient a simple question such as "can you hear me?"
- If no response, make sure an ambulance has been called and continue with the following procedure.

## Clear the airway

- Tilt patient's head back and lift their chin to clear the airway.
- Remove any foreign matter from the mouth.

## Check if the patient is breathing

If the patient is breathing, place them in the recovery position and maintain a clear airway.

If you think the patient is not breathing:

If an AED (Automated External Defibrillator) is available, attach the AED to the patient as soon as possible and follow the prompts given to you by the AED.

If an AED is not available:

- Make sure the patient is lying on their back
- Place the heel of one hand in the middle of the chest and your other hand on top of the first. Keep elbows locked. Push down on chest about 4 – 5 cm
- Compress chest at a speed of approximately 100 compressions per minute
- Breath into the patient two times then continue with a cycle of 30 pushes to two breaths
- Continue CPR until the ambulance arrives.

## Children and babies

Children older than one year should be managed the same as adults. The chest should be compressed about 1 to 2.5 cm or about one third the depth of the chest.

Babies up to 1 year old: start with 2 breaths if no breathing present then continue with a cycle of 30 chest compressions and 2 breaths. Use two fingers in the middle of the baby's chest for the compressions and compress the chest about 1 to 2.5 cm or by about one third the depth of the chest.

*This material was supplied by St John New Zealand.*

# GLOSSARY

| | |
|---|---|
| **ADG** | Australian Dangerous Goods Code |
| **ADR** | European agreement on the international carriage of dangerous goods by road |
| **Aerosol** | Liquid/gaseous contents normally discharged through a valve system from pressurised dispensers |
| **Alcohol foam** | see **Alcohol resistant foam** |
| **Alcohol resistant foam** | This foam is resistant to alcohol and other polar chemicals such as ketones and esters which may break down other types of foam |
| **Alphabetical list** | Dangerous goods listed alphabetically by their Proper Shipping Name or Technical Name and indicating the appropriate emergency response guide to use |
| **Ambient** | Surrounding. (Generally used to describe surrounding temperature and atmospheric conditions.) |
| **Bleve** | Boiling Liquid Expanding to Vapour Explosion |
| **Burn** | A chemical or thermal burn, the former caused by corrosive substances and the latter by cryogenic liquids or hot substances |
| **CB** | Chemical/biological |
| **Chemical protective clothing** | see **Gas-tight suit, SCBA, Splash suit** |
| **$CO_2$** | Carbon dioxide |
| **Cold zone** | This area contains the command post and such other support functions as are deemed necessary to control the incident. This can also be referred to as the clean zone or support zone |
| **Combat zone** | see **Hot zone** |
| **Combustible liquid** | A liquid having a flashpoint and which is not classified as a flammable liquid |
| **Compatibility group** | A letter forming part of the classification code for an explosive substance or article; for example the 'S' of class 1.4S or the 'B' of 1.4B. It indicates which explosives are compatible for transport purposes |
| **Container** | A container for dangerous goods, including aerosol dispensers, bottles, drums, tanks, and so on, but excluding freight containers unless they have been loaded in bulk |

| | |
|---|---|
| **Control zones** | The designation of areas at dangerous goods incidents based upon safety and the degree of hazard. Many terms are used to describe these control zones; however, for the purposes of this handbook, these zones are defined as the hot, warm, and cold zones |
| **Cryogenic liquid** | An extremely low temperature liquefied gas (below –150 ºC) |
| **D** | Indicates that the substance may decompose explosively. |
| **Dangerous goods** | Substances as defined in the Dangerous Goods Classification System in Section 7. |
| **Decomposition products** | The products of a chemical or thermal breakdown of a substance |
| **Decontamination** | The process of reducing and preventing the spread of contamination from persons and equipment used at a dangerous goods incident. Decontamination methods are dependent on the chemical characteristics of the dangerous goods involved, so assistance should be sought from the chemical manufacturer, the competent authority for dangerous goods or the emergency services |
| **Dry chemical** | A preparation designed for fighting fires involving **flammable liquids**, **pyrophoric** substances and electrical equipment. Common types contain sodium bicarbonate or potassium bicarbonate |
| **Exposures** | Anything in the surrounding environment for example grass, vegetation, buildings or drums, that might be exposed to fire |
| **FIBC** | Flexible intermediate bulk container |
| **Flammable liquid** | A liquid having a **flashpoint** of equal to or less than 60 ºC |
| **Flashpoint** | The lowest temperature at which a liquid or solid gives off vapour in such a concentration that when the vapour combines with air near the surface of the liquid or solid, a flammable mixture is formed. Hence, the lower the flashpoint, the more flammable is the product |
| **Gas-tight suit** | Clothing that protects the wearer against chemical vapours and gases. A garment that covers the wearer's head, torso, hands and feet with attached or detachable hood, gloves, and boots and completely encloses the wearer (considered Level 'A' chemical clothing protection) (see **Protective clothing**) |
| **Hazardous substances** | A term used in New Zealand legislation (HSNO Act 1996) which includes Dangerous Goods except Classes 6.2 & 7 |
| **Hazchem code** | An emergency action code developed by the United Kingdom Fire Service. See Section 16 |
| **Highly flammable liquid** | In this handbook the term used to describe a **flammable liquid** with a flashpoint below 23 ºC |

| | |
|---|---|
| **High temperature protective clothing** | Protective clothing designed to protect the wearer for short term high temperature exposures. This type of clothing is usually of limited use in dealing with chemicals (see **Thermal protective clothing**) |
| **Hot zone** | The area immediately surrounding a dangerous goods incident which extends far enough to prevent adverse effects from dangerous goods releases to personnel outside the zone. This zone is also referred to as the exclusion zone, combat zone or restricted zone |
| **HSNO** | Hazardous Substances and New Organisms (HSNO) Act 1996 |
| **IATA** | International Air Transport Association |
| **ICAO** | International Civil Aviation Organization |
| **Ignition source** | Includes heat, sparks, flames, static electricity and friction. Ignition sources should always be eliminated where flammable, combustible, explosive or unknown substances are present |
| **Large container** | In this handbook, a container having a capacity greater than 3 $m^3$ or 3000 L |
| **Marine pollutant** | Substances which are potentially harmful to the environment and, if released, could cause serious damage. These substances are proscribed under the International Maritime Dangerous Goods (IMDG) Code |
| **Mass explosion** | A mass explosion which affects almost the entire load virtually instantaneously |
| **Medical care** | Examination and/or treatment of victims by a medical practitioner or other qualified person such as a paramedic |
| **N.E.Q**. | Net Explosive Quantity. The actual amount of explosive substance minus packaging |
| **N.O.S.** | Not Otherwise Specified. Used in **PROPER SHIPPING NAMES** to cover chemicals having similar properties but which have not been assigned separate **UN NUMBERS** |
| **Numerical list** | Dangerous goods listed numerically by their UN Number and indicating the appropriate Emergency Response Guide to use |
| **Oedema** | An accumulation of an excessive amount of watery fluid in cells and tissues. Pulmonary oedema is an excessive build-up of water in the lungs, for example after inhalation of corrosive gas |
| **P** | Indicates that the substance may polymerise violently. This polymerisation can produce heat and pressure build-up in containers and may cause them to explode |

| | |
|---|---|
| **Personal protective equipment (PPE)** | The equipment necessary to shield or isolate a person from the chemical, physical and thermal hazards that may be encountered at a dangerous goods incident.Personal protective equipment includes both protective clothing and respiratory protection. Adequate personal protective equipment should protect the respiratory system, skin, eyes, face, hands, feet, head, body, and hearing (see **Protective clothing**) |
| **Proper shipping name** | The name used to describe a dangerous good as defined in the UN Model Regulations, the IMDG Code, the ADG Code, and NZS 5433: 2007 *Transport of dangerous goods on land* |
| **Protective clothing** | Equipment designed to protect the wearer from heat and/or dangerous goods contacting the skin or eyes. Protective clothing is divided into four types, being:<br>(a) Structural firefighting protective clothing;<br>(b) Splash suit;<br>(c) Gas-tight suit; and<br>(d) High temperature protective clothing.<br>See also **Thermal protective clothing** |
| **Protective medium** | A medium which protects a chemical from reaction with air and/or moisture; for example solvent oil, inert gas, and so on |
| **Pyrophoric** | A substance which spontaneously and immediately ignites on exposure to air or oxygen |
| **SCBA** | Self-contained breathing apparatus, including positive pressure full face piece, air tank, connecting hose and other fittings |
| **Soda ash** | Sodium carbonate |
| **Splash suit** | Clothing that protects the wearer against chemical liquid splashes but not against chemical vapours or gases |
| **S/R** | Subsidiary risk |
| **Structural firefighter's protective clothing** | The protective clothing normally worn by firefighters during structural firefighting operations. It includes a helmet, coat, pants, boots, and gloves, and may include a hood to cover parts of the head not protected by the helmet and face piece. Structural firefighter's protective clothing provides limited protection from heat but may not provide adequate protection from the harmful vapours or liquids that are encountered during dangerous goods incidents (also called turnout or bunker gear) |
| **Thermal protective clothing** | This type of clothing includes both low (cryogenic liquid protection) and high temperature protective clothing |
| **Toxic** | Poisonous |

**Transport document** A document completed by the consignor signifying the consignor's request or instruction to have goods transported and in which is included a description of the goods nominated in the contract of carriage agreed with the transport operator. 'Transport document' includes the consignment note and the dangerous goods transport documents

**Turnout gear** See **Structural firefighter's protective clothing**

**UN number** The identification number assigned to a dangerous good by the United Nations Committee of Experts on the Transport of Dangerous Goods

**Vapour density** The ratio of the weight of a volume of pure vapour of gas (with no air present) compared to the weight of an equal volume of dry air at the same temperature and pressure. A vapour density figure less than one (1) indicates that the vapour is lighter than air and will tend to rise. A figure greater than one (1) indicates that the vapour is heavier than air and may travel along the ground

**Vapour pressure** The pressure at which a liquid and its vapour are in equilibrium at a given temperature. Liquids with high vapour pressures evaporate quickly. For example, water at 10 ºC has a vapour pressure of 9.21 mm Hg and at 25 ºC a vapour pressure of 23.77 mm Hg, while acetone has a vapour pressure of 231 mm Hg at 25 ºC. (1 atmosphere = 760 mm Hg = 101.325 kPa)

**Vapour suppressing foams** Foams designed to produce stable blankets over vapours of hazardous materials/dangerous goods to control emissions. They can be used for acid, alkaline and organic products

**Viscosity** A measure of a liquid's resistance to flow. This property indicates how fast a chemical can leak out through holes in containers or tanks or flow along the ground

**Warm zone** The area where personnel and equipment decontamination and hot zone support take place. It includes control points for the access corridor and thus assists in reducing the spread of contamination. This is referred to as the decontamination, contamination reduction, or limited access zone in some documents

**Water jet** A method to apply or distribute water from a hose. The water is delivered under pressure for penetration. Water jets are frequently used to keep tanks and other equipment exposed to flammable liquid fires cool, or for washing burning spills away from danger points. However, water jets will cause a spill fire to spread if improperly used and will only serve to spread a fire when directed into open containers of flammable or combustible liquids

**Water spray (FOG)**

A method of applying or distributing water. The water is finely divided to provide for high heat absorption. Water spray patterns can range from about 10 to 90 degrees. Water spray streams can be used to extinguish or control the burning of a fire or to provide exposure protection for personnel, equipment, buildings, and so on. This method can also be used to absorb, knock-down or disperse vapours. Direct a water spray (fog), rather than a straight (solid) stream into the vapour cloud to accomplish either of the above. Water spray is particularly effective on fires of flammable liquids and volatile solids having high flashpoints (above 38°C).

Regardless of the above, water spray can be used successfully on low flashpoint liquids. The effectiveness depends particularly on the method of application. With proper nozzles, even petrol spill fires of some types have been extinguished when coordinated hose lines were used to sweep the flames off the surface of the liquid. Furthermore, carefully applied water spray has frequently been used with success in extinguishing fires involving flammable liquids with high flashpoints (or any viscous liquids) by causing frothing to occur on the surface; this foaming action blankets and extinguishes the fire

# 16. HAZCHEM CODE

The HAZCHEM emergency action code (see Figure 1) provides emergency services personnel with information on the correct initial action to be taken to prevent the escalation of an incident. It is used in New Zealand for the transport of bulk dangerous goods and is also often used on dangerous goods stores. It is shown on Emergency Information Panels and may also be found on the labels of chemical products.

The HAZCHEM Code advises on:

- firefighting media
- personal protection requirements
- risk of violent reaction
- spillage handling
- evacuation consideration.

## HAZCHEM Emergency Action Code

FOR FIRE OR SPILLAGE

Substance
UN No.
HAZCHEM
Class Label
Contacts

| | |
|---|---|
| 1 | COARSE SPRAY |
| 2 | FINE SPRAY |
| 3 | FOAM |
| 4 | DRY AGENT |
| • | ALCOHOL RESISTANT FOAM |

| | | | |
|---|---|---|---|
| P | V | LTS | DILUTE |
| R | | | |
| S | V | BA & FIRE KIT | |
| T | | | |
| W | V | LTS | CONTAIN |
| X | | | |
| Y | V | BA & FIRE KIT | |
| Z | | | |

| | |
|---|---|
| E | PUBLIC SAFETY HAZARD |

## Additional Information

**DRY AGENT**
Water must not be allowed to come into contact with the substance at risk.

**ALCOHOL RESISTANT FOAM •2 OR •3**
Alcohol resistant foam is the preferred medium. If not available:

– If •2 – use Fine Spray or Water Fog
– If •3 – use Normal Protein Foam

**V**
Substance can be violently or even explosively reactive, including combustion.

**LTS**
Liquid-Tight Chemical Protective Suit with BA. Full FIRE KIT should also be worn for thermal protection if the substance is:

Liquid Oxygen
or Liquefied Toxic Gas (Division 2.3)
or Toxic Gas with sub-risk 2.1 or 5.1
or Class or sub-risk 3
or Division 5.1 PG1 with sub-risk 6.1 or 8
or carried at temperature > 100°C

**DILUTE**
May be washed to drain with large quantities of water.

**CONTAIN**
Prevent, by any means available, spillage from entering drains or water course.

**E**
People should be warned to stay indoors with all doors and windows closed, – but evacuation may need to be considered. Consult Control, Police, and product expert.

NOTE – In New Zealand a Level 3 Chemical Splash Suit provides equivalent protection to a Liquid-Tight Chemical Protective Suit

**Figure 1 – HAZCHEM Emergency Action Code**

## 17. NFPA/HMIS CODES

The NFPA Code (see Figure 2) was developed by the National Fire Protection Association (USA) to:

- Warn firefighting personnel of the inherent hazards of a substance;
- Provide, at a glance, the order of severity of such hazards in a fire situation.

The Hazardous Materials Information System (HMIS) (see Figure 3) came from this and has the same purpose. The system identifies the hazards of a substance in terms of health (blue), flammability (red) and reactivity (yellow). The white area is for additional advice in the NFPA system and for Protective Clothing in the HMIS.


**Figure 2 – National Fire Protection Association (NFPA) Code**

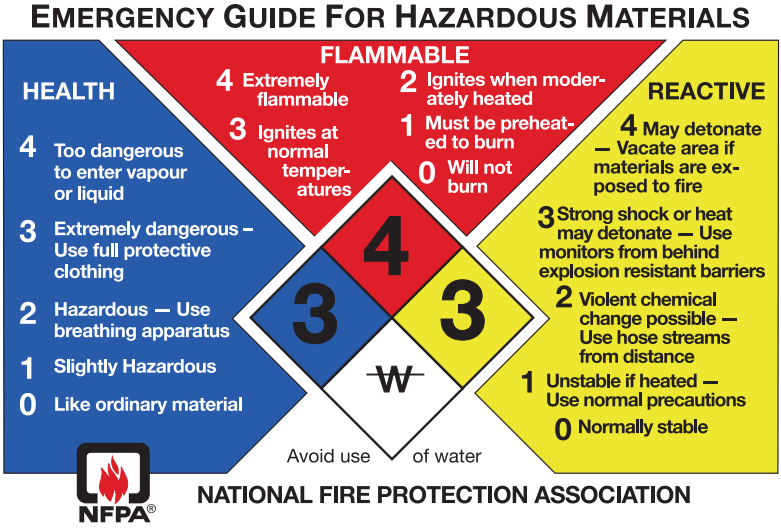



**Figure 3 – Hazardous Materials Information System (HMIS) Code**

# 18. ADR HAZARD IDENTIFICATION CODE

The European Union (EU) uses this system to provide information on the identity and hazardous properties of bulk cargoes carried between member countries. It is sometimes seen on bulk goods imported from the EU.

The orange plate is divided horizontally in two halves.

The upper half contains the ADR Hazard Identification Number (or Kemler Code), which indicates the properties of the substance involved.

The lower half contains the UN Number.

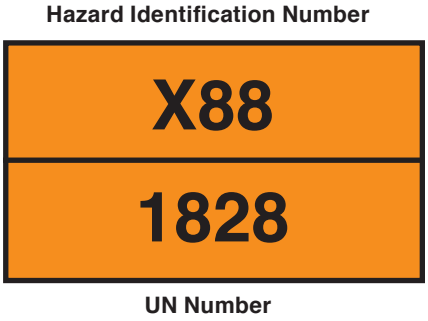



**Figure 4 – ADR Hazard Identification Code**

The numbers in the ADR Code are taken from the Hazard Class Numbers. If a number is repeated it indicates a high hazard. An X indicates that it reacts with water. In the example, X88 indicates a strong acid which will react with water.

A single class, low hazard would be written as class number followed by a zero – such as 30 low flammability substance. Multiple class low hazards would be written as numbers – such as 58 Oxidizing Corrosive.

| *The first figure letter indicates the primary hazard:* | | *The second and third digits generally indicate secondary hazards:* | |
|---|---|---|---|
| **2** | gas | **0** | the hazard is adequately described by the first figure |
| **3** | flammable liquid | **2** | (flammable) gas may be given off |
| **4** | flammable solid | **3** | fire risk |
| **5** | oxidizing substance or organic peroxide | **4** | fire risk |
| **6** | toxic substance or infectious substance | **5** | oxidizing risk |
| **7** | radioactive substance | **6** | toxic risk |
| **8** | corrosive substance | **8** | corrosive risk |
| **9** | miscellaneous/environmental hazard | **9** | risk of spontaneous, violent reaction |
| **X** | reacts dangerously with water | | |

# NOTES

# HAZARDOUS SUBSTANCE INCIDENT REPORT FORM

(This form is to be filled out for ANY Hazardous Substance spill or leak and to be sent to the local authority's ENVIRONMENTAL OFFICER)

Location .....

Date .....

☐ Leak/Spill in Transit ☐ Leak/Spill During Loading ☐ Leak/Spill During Unloading

PRODUCT NAME .....

CLASS .....

UN No. .....

PACK SIZE .....

PACK TYPE .....

QUANTITY .....

INCIDENT DESCRIPTION .....

.....

.....

.....

WHO IS AT THE SCENE

| | At Scene | Called | ETA | Contact Name |
|---|---|---|---|---|
| Fire Brigade | ☐ | ☐ | ..... | ..... |
| Police | ☐ | ☐ | ..... | ..... |
| Ambulance | ☐ | ☐ | ..... | ..... |
| Health Provider | ☐ | ☐ | ..... | ..... |
| DG Inspector | ☐ | ☐ | ..... | ..... |
| Clean-Up Contractor | ☐ | ☐ | ..... | ..... |

Name ..... Signature .....

# NOTES

# HAZARDOUS SUBSTANCE INCIDENT REPORT FORM

(This form is to be filled out for ANY Hazardous Substance spill or leak and to be sent to the local authority's ENVIRONMENTAL OFFICER)

Location .....

Date .....

☐ Leak/Spill in Transit ☐ Leak/Spill During Loading ☐ Leak/Spill During Unloading

PRODUCT NAME .....

CLASS .....

UN No. .....

PACK SIZE .....

PACK TYPE .....

QUANTITY .....

INCIDENT DESCRIPTION .....

.....

.....

.....

WHO IS AT THE SCENE

| | At Scene | Called | ETA | Contact Name |
|---|---|---|---|---|
| Fire Brigade | ☐ | ☐ | ..... | ..... |
| Police | ☐ | ☐ | ..... | ..... |
| Ambulance | ☐ | ☐ | ..... | ..... |
| Health Provider | ☐ | ☐ | ..... | ..... |
| DG Inspector | ☐ | ☐ | ..... | ..... |
| Clean-Up Contractor | ☐ | ☐ | ..... | ..... |

Name ..... Signature .....

# EMERGENCY NUMBERS AND INFORMATION

**AUSTRALIA**

**IN EVERY EMERGENCY..... call 000 or 112 (Mobile)**

FOR EMERGENCY SERVICES
(FIRE BRIGADE, AMBULANCE, POLICE)

Help them to help you by giving the information in the shaded area below

**IN CASE OF POISONING..... call 131 126**

POISONS INFORMATION CENTRE

## Information to provide to Emergency Services

**IDENTIFICATION:**

Your name / Organisation
Call back number / Location

**EVENT:**

Deaths / Injuries
Product(s) involved
Quantity
Type of vehicle / Container
Time / Exact location
Help: On site / To be called

**OTHER HELPFUL INFORMATION**

Consignor / Origin
Carrier
Consignee / Destination
Car / Truck / Trailer / Flight No.
Bill of Lading / Waybill No.

**NEW ZEALAND**

**IN EVERY EMERGENCY..... call 111**

FOR EMERGENCY SERVICES
(FIRE BRIGADE, AMBULANCE, POLICE)

Help them to help you by giving the information in the shaded area on the facing page

**IN CASE OF**
**POISONING ..... call 0800 764 766**

NATIONAL POISONS CENTRE

**EMERGENCY INVOLVING**
**RADIOACTIVE MATERIAL..... call 03 366 5059**

NATIONAL RADIATION LABORATORY

**OTHER CHEMICAL**
**EMERGENCY ..... call 0800 243 622**

NZCIC CHEMCALL EMERGENCY RESPONSE



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