# HAZARDOUS SUBSTANCES AND DANGEROUS GOODS (MINOR QUANTITIES) PROCEDURE

PILBARA PORTS AUTHORITY

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## 1. OBJECTIVE

The objective of this procedure is to outline the process and responsibilities for the safe management of hazardous substances and dangerous goods in accordance with Dangerous Goods Safety Act 2004 (DG Act).

## 2. SCOPE

A person conducting a business or undertaking (PCBU) for or on behalf of PPA on a PPA site, and all licensees and lessees, must comply with this procedure. When agreed with PPA, a PCBU, licensee, or lessee may have their own procedure to manage hazardous substances and dangerous goods, but it must at least meet legislative requirements and the standards set by this procedure.

The process, responsibilities and guidance described in this procedure only apply to minor quantities as defined by Schedule 1 of the Storage and Handling of Workplace Dangerous Goods National Standards and all quantities of other hazardous substances. This procedure does not apply to cargo classified as hazardous or dangerous or fuel tanks on Pilbara Ports Authority sites exceeding 1500L.

Section 8 of this procedure only applies to PPA employees and labour hire. Vendors must ensure they comply with the DG Act.

## 3. DEFINITIONS

**Table 1: Definitions**

| TERM | DEFINITIONS |
|---|---|
| AC Classification System | Approved Criteria for classifying Hazardous Substances as declared by The National Occupational Health and Safety Commission. |
| Contaminant | The airborne concentration of any substance or mixture hazardous to health. |
| ChemAlert | The system PPA employs to manage hazardous substances and dangerous goods data. |
| Dangerous Good | Materials which are either specifically listed in the Australian Dangerous Goods (ADG) Code or meet the classification criteria of the ADG Code or are deemed to be dangerous goods by the Competent Authorities Panel. |
| Globally Harmonised Classification System (GHS) | A Globally Harmonised System of Classification and Labelling of Chemicals as published by the United Nations. |
| Hazardous Substance | A substance is a hazardous substance if it meets the relevant criteria under:<br>1. the Approved Criteria (AC) classification system; or<br>2. the Globally Harmonised System of Classification and Labelling of Chemicals (GHS classification system). |
| Minor Storage | Storage of dangerous goods of mixed classes in packages and Intermediate Bulk Containers (IBCs), in quantities less than or equal to those given in the Maximum Minor Storage |



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<table>
<tr><td></td><td>Quantities table below.<br><br>
<table>
<tr><td colspan="5">Maximum Minor Storage Quantities</td></tr>
<tr><td rowspan="2">Description</td><td colspan="4">Quantity, kg or L</td></tr>
<tr><td>PG I</td><td>PG II</td><td>PG III</td><td>Combustible liquids</td></tr>
<tr><td>Total quantity of all dangerous goods</td><td>25</td><td>250</td><td>1000</td><td>1500</td></tr>
</table>
<br>Note: It is permissible to store, at the same time and in the same area, the maximum allowance for each of all of the Packing Groups.</td></tr>
<tr><td>Packing Group (PG)</td><td>Dangerous goods are assigned into 3 packing groups in accordance with the degree of danger they present:<br><br>• PG I: high danger<br>• PG II: medium danger<br>• PG III: low danger<br><br>Note: articles and some dangerous goods classes (Class 2, Division 6.2 and Class 7) do not have packing groups.<br><br>Class 2 dangerous goods in retail packages (e.g. non-refillable lighters, butane lighters, barbeque gas in disposable containers), aerosols and substances and articles of Class 9, are regarded as PG III.<br><br>Dangerous goods of Classification Code 1.4S, in their original packaging, are regarded as PG II.</td></tr>
<tr><td>Person Conducting Business or Undertaking (PCBU)</td><td>1. A person conducts a business or undertaking:<br>a) whether the person conducts the business or undertaking alone or with others; and<br>b) whether or not the business or undertaking is conducted for profit or gain.<br>2. A business or undertaking conducted by a person includes a business or undertaking conducted by a partnership or an unincorporated association.<br>3. If a business or undertaking is conducted by a partnership (other than an incorporated partnership), a reference in the WHS Act 2020 to a person conducting the business or undertaking is to be read as a reference to each partner in the partnership.<br>4. An individual does not conduct a business or undertaking to the extent that the individual is engaged solely as a worker in, or as an officer of, that business or undertaking.</td></tr>
</table>



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| | |
|---|---|
| | 5. A local government member does not conduct a business or undertaking.<br>6. The regulations may specify the circumstances in which a person may be taken not to be a person who conducts a business or undertaking for the purposes of this Act or any provision of this Act.<br>7. A volunteer association does not conduct a business or undertaking for the purposes of this Act.<br>8. A strata company that is responsible for any common areas used only for residential purposes may be taken not to be a person conducting a business or undertaking in relation to those premises.<br>9. Item 8 does not apply if the strata company engages any worker as an employee. |
| Requestee | PPA employees requiring use of a hazardous substance or dangerous good onsite. |
| Safety Data Sheet (SDS) | An information sheet, provided by the manufacturer or supplier, that provides relevant information for the safe use, handling, generation and storage of a substance. |
| Segregate | To isolate incompatible goods from each other within separate compounds. |
| Separate | To isolate dangerous goods from protected places, boundaries and other dangerous goods by a given minimum distance. |

## 4. RESPONSIBILITIES

**Table 2: Responsibilities**

| ROLE | RESPONSIBILITIES |
|---|---|
| ChemAlert Champions | Facilitate the application process including storage and handling risk assessments and stock holdings for products through ChemAlert. Maintain SDS validity for inventory products. Participate in auditing processes in accordance with this procedure. |
| Employees | Comply with the requirements of this procedure.<br>Responsible for completing request of product in ChemAlert. |
| Environment and Heritage Team | Complete the Environment module of the product request. |
| Managers, Superintendents and Supervisors | Personnel under their control are aware of, understand and comply with the requirements of this procedure.<br>Approval for use of substances deemed red by ChemAlert System within their managed areas. |
| Vendors | Comply with the requirements of this procedure, excluding Section 8. |
| Health and Safety Team | Provides advice on the application process inclusive risk assessment, stock holdings and ChemAlert approvals. |



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| | |
|---|---|
| | Complete the Health & Hygiene and Safety module of the product request.<br>Provide training where required to ChemAlert users and PPA employees.<br>Assist in the auditing process in accordance with the procedure. |

**Table 3: ChemAlert Champions by Location**

| LOCATION | CHAMPIONS |
|---|---|
| Perth | Senior Health and Safety Advisor - Dampier |
| Port of Port Hedland - Eastern Harbour / Utah Point | Stores |
| Port of Dampier | Senior Health and Safety Advisor - Dampier |
| Port of Ashburton | Senior Health and Safety Advisor - Dampier |

## 5. IDENTIFICATION

### 5.1 SDS

All hazardous substances and dangerous goods must have an SDS readily available to any person who might be exposed to the substance. All SDSs hold a validity of no more than five years from the date published by the manufacturer.

All SDSs can be accessed electronically using ChemAlert or via QR codes located in storage areas. For first time users of the ChemAlert application on mobile devices, syncing will be required (this can be done from the “User Preferences” section of ChemAlert on a web browser). Where a SDS can’t be found using ChemAlert, contact the manager of the storage location where the substance is stored. For details on how to search for an SDS, refer to ChemAlert’s User Guide.

### 5.2 REGISTER

A register detailing a list of all hazardous substances and dangerous goods and their relevant SDSs is available on ChemAlert.

ChemAlert automatically updates the register following the approval process of a substance. ChemAlert Champions will be required to maintain the register with current quantities at each storage location (which can be added to a stockholding at each location during request/approval process). Details on how to update stockholdings at each location during request can be found in ChemAlert User Guide.

### 5.3 LABELLING

All hazardous substances and dangerous goods must be clearly identified and marked by the manufacturer. Should a hazardous substance and dangerous good be decanted from an original container to another container where all the decanted substance is not utilised immediately, then the container must be labelled with:



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- Brand name;
- Product name;
- Code name or code number specified by the supplier of the hazardous substance;
- Risk phrases; and
- Safety phrases that apply to the hazardous substance.

Such labels can be printed from ChemAlert using the 'Product Report' function.

Where the contents of a container are not known, the container will be clearly marked 'Caution, Do Not Use: Unknown Substance'. The container will be stored in isolation until its contents can be identified. If it is found to be hazardous, the container must be labelled appropriately. If the contents cannot be identified, it must be disposed of in accordance with Section 7.4 of this procedure.

### 5.4 DANGEROUS GOODS CLASSIFICATIONS AND DEFINITIONS

A Globally Harmonised System (GHS) of Classification and Labelling of Chemical Substances was developed to classify and communicate hazards using consistent terms and information on labels and SDSs. The system considers physical, health, and environmental hazards when classifying a substance. Substances classified as a dangerous good are assigned to one of nine dangerous good classes/divisions and must be stored in accordance with the incompatibility's segregation guide in Figure 2.

Access to the GHS Classification Guide is available on ChemAlert.

### 5.5 SIGNAGE

Signage must be displayed at the opening of a dangerous goods storage area to indicate the class or division of the dangerous goods and the associated risks. Signage must be displayed to restrict entry, inform personnel of any PPE requirements, and exclude ignition sources as relevant.

## 6. STORAGE AND SEGREGATION

Hazardous substances must be stored in accordance with the manufacturer's specifications, as outlined in the SDS. When considering storage areas, the type, quantity, ventilation, temperature, combustion, spillage of the hazardous substance, and response to emergency situations must be taken into consideration.

Hazardous substances must be contained in the original packaging wherever possible. Hazardous substances are not required to be segregated or separated unless also classed as a dangerous good. Please refer to Figure 2.

### 6.1 MINOR STORAGE

Storage of dangerous goods of mixed classes in packages and Intermediate Bulk Containers (IBCs) in quantities less than those given in figure 2 (Maximum Minor Storage Quantities table), is classified as minor storage.



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A minor store may be regarded as separate if it is more than 10m from any other dangerous goods store, except where a regulation of Standard applying to the other store stipulates a greater distance.

The total amount of dangerous goods kept shall not exceed one minor store per 500m2 of floor or ground area. Where the floor or ground area exceeds 500m2, minor stores shall be at least 10m2 apart. The following points must also be noted:

- It is permissible to store, at the same time and in the same area, the maximum allowance for each of all of the Packing Groups.

## 7. THE MAXIMUM QUANTITY OF DIVISION 5.2 DANGEROUS GOODS ALLOWABLE AS MINOR STORAGE IS 10KG OR 10L.HANDLING AND SAFE USE

### 7.1 SDS AND RISK ASSESSMENT

Prior to the use of any hazardous substance or dangerous good, personnel must review the SDS to identify potential health and safety risks. The information acquired from the SDS must be used in the development of a task specific risk assessment.

### 7.2 VENTILATION

Consideration must be given to natural and mechanical ventilation controls where hazardous substances or dangerous goods are likely to contaminate the breathing zone of personnel. Local exhaust ventilation is the preferred ventilation method to capture airborne contaminants close to their point of release. To ensure the effectiveness of ventilation systems, they should be designed, installed, and maintained in accordance with appropriate technical standards.

### 7.3 SPILL

When using, handling, and storing hazardous substances or dangerous goods, equipment should be made readily accessible to contain and clean up any spill. Equipment types and methods will depend on the type and quantity of the substance/s. When selecting suitable equipment, consideration should be given to the properties of the substance/s, potential spillage areas, and exposure to personnel.

### 7.4 DISPOSAL

When disposing of a hazardous substance or dangerous good, this must be done in accordance with the SDS.

Disposal of hydrocarbons must be conducted in accordance with site requirements.

Where substances requiring disposal cannot be identified, the PPA Environmental team must be notified to assist in the classification of the material and determining an appropriate disposal pathway.

### 7.5 EMERGENCY PREPAREDNESS



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Prior to using or handling a hazardous substance or dangerous good, consideration should be given to potential emergency situations. Personnel will ensure means of responding to an emergency are established and understood by the work group and clearly written in the task specific risk assessment prior to commencing work activities. Equipment required to respond to emergency situations must be identified and readily accessible, should an emergency occur.

Personnel should also familiarise themselves with the relevant PPA area evacuation plan.

## 8. REQUEST AND ASSESSMENT PROCESS

All hazardous substances and dangerous goods are subject to risk assessment and an approval process which is administered through ChemAlert. ChemAlert Champions will ensure that all new hazardous substances and dangerous goods are added to the relevant stock holding and a 'storage and handling' risk assessment is completed in ChemAlert.

Detailed instructions on how to add products to stock holdings, complete product requests and risk assessments can be found in ChemAlert User Guide.

### 8.1 REQUEST

Where a product is deemed green by the ChemAlert colour ratings guide, the product is ready for use, given it is within the PPA stock inventory on ChemAlert.

When a product is deemed amber, a product request approval will be required by the department manager the storage location falls in. Products of red colour rating will require approval from department manager of the storage location and the Health and Safety superintendent. Where a Health and Safety Superintendent is not available, responsibility may be given to a delegated person.

Where a hazardous substance or dangerous good is required for use urgently, a supervisor of the department using it may give temporary approval for immediate use. Prior to approval the SDS must be reviewed for suitability and ensure that the application, risk assessment, and approval process is followed as soon as practicable.

The ChemAlert assessment and approval workflow is captured in Figure 1.

#### 8.1.1 NEW PRODUCT

To add a new product on ChemAlert, the product name along with Australian based SDS need to be sent to info@rmt.com.au with the subject line, 'New Product for ChemAlert database'. ChemAlert personnel will then complete checks on the product and add it to the database. Once complete, requestee will receive an email alert that the product has been added.



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Once the new product is in system, the request can be completed as per point 8.1.2.

### 8.1.2 CREATING A SITE PRODUCT REQUEST

Where a product is already in the ChemAlert database, a request can be created via the request module. You will need to select the new chemical request button, search the product, and provide applicable information. Information required to complete the request and submit for approval includes:

- Use and usage detail i.e., method, nature, and frequency
- Date required
- Regulation found in relation to product and alternatives evaluated
- Hazards and preventative/response controls
- Exposure information and
- Environment risks

This information can be found on the SDS or derived from your job specific use of product.

Once the request has been completed, the product will go through a Health, Hygiene, Safety and Environmental Assessment by responsible teams in relation to the risks involved with storage and handling. Requestees will be notified by ChemAlert Champions if the product is approved and ready for use.

For workflow of product request please refer to Figure 1 and the ChemAlert User Guide.



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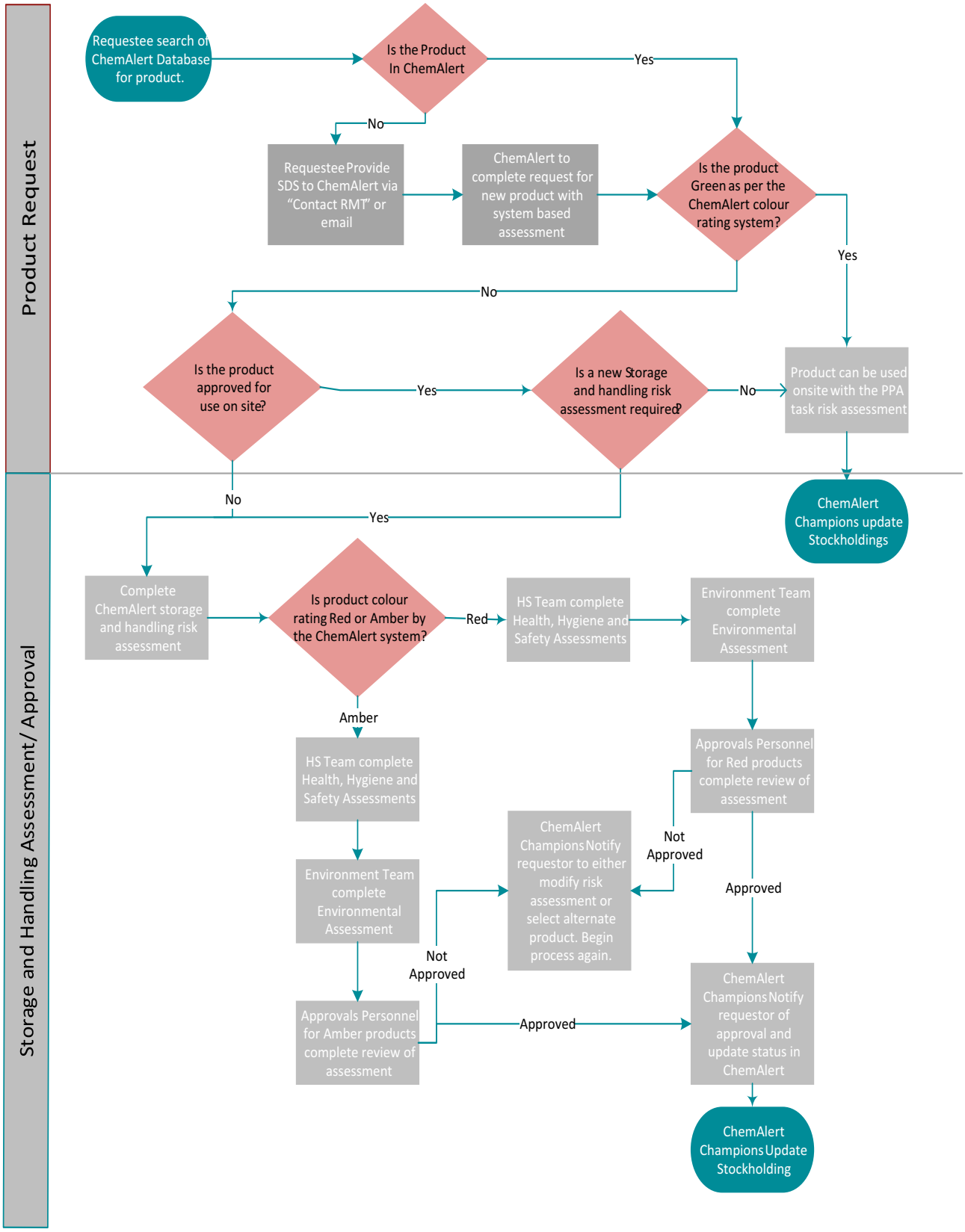
## Figure 1: ChemAlert request and approval flow



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### 8.2 RISK ASSESSMENTS

Hazardous substances and dangerous goods stored on PPA sites will undergo a storage and handling risk assessment within ChemAlert at time of request. Risk assessments in ChemAlert are available to all personnel and will remain valid for a maximum of five years, or until there is a change to the risk or controls.

All hazardous substances and dangerous good will undergo task specific risk assessments in accordance with the Hazard Management Procedure and give consideration for:

- the risk and safety phases stated in the hazard identification section on the SDS
- the task being undertaken which requires use of the hazardous substance or dangerous good
- the frequency and duration of tasks where personnel may be exposed
- the physical conditions of the location of use and
- the experience of those using.

### 8.3 APPROVALS

Once the product request is completed by the requestee, four assessment and acceptance tasks will be initiated in ChemAlert. Where a product request passes Health and Hygiene, Safety and Environmental Assessments as acceptable, an automatic authorisation and approval will be applied. Where the product requested falls under the Amber or Red Health Hazard Level, refer to Table 4: ChemAlert Approvals table for approvals.

**Table 4: ChemAlert Approvals**

| RISK LEVEL | ASSESS. REQ. | APPROVAL LEVEL |
|---|---|---|
| Green | No | Nil |
| Amber | Yes | Superintendent of storage location department |
| Red | Yes | Superintendent of storage location department and Health and Safety Superintendent |

## 9. TRANSPORT

Consideration should be given to handling and storage requirements as per the SDS when transporting hazardous substances. Personnel must ensure spill and emergency response equipment is readily available during transit.

Transportation of dangerous goods must be done in accordance with the Australian Code for the Transport of Dangerous Goods by Road & Rail. A Dangerous Goods Transport by Road Form will be completed and attached to the package prior to transportation. Personnel required to transport goods must be competent in the process of Dangerous Goods Transport.

## 10. AUDITS

Hazardous Substance and Dangerous Good storage locations should undergo auditing from the ChemAlert Champions, Health and Safety and Environment Team to ensure they are complying with the Work Health and Safety Act, DG Act and Hazardous Substance and Dangerous Goods (Minor Quantities) Procedure.

## 11. RECORD KEEPING

The ChemAlert Register and risk assessments relevant to all hazardous substances and dangerous goods will be kept for a minimum of 5 years from the completion or last entry on the record. Records are stored in ChemAlert and will be retained in accordance with Record Keeping Plan.

## 12. REFERENCES

AS/NZS 3833:2007 The Storage and Handling of Mixed Classes of Dangerous Goods, in Packages and Intermediate Bulk Containers

Australian Code for the Transport of Dangerous Goods by Road & Rail

ChemAlert User Guide

Dangerous Goods Safety Act 2004

Dangerous Goods Transport by Road Form

Hazard Management Procedure

Record Keeping Plan

Storage and Handling of Workplace Dangerous Goods National Code of Practice

Storage and Handling of Workplace Dangerous Goods National Standards

Work Health and Safety Act 2020

Work Health and Safety (General) Regulations 2022

## 13. DOCUMENT OWNER

The Director Health and Safety is responsible for this Procedure



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## Figure 2: ChemAlert Storage Incompatibilities and Minor Storage Guide

Note: Generally, Explosives and Radioactive Substances are incompatible with everything.

| | | Class | 2 | | 3 | 4 | | | 5 | | 6 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Class | | | | | | | | | | |
| COMPRESSED GASES | 2.1 Flammable | 2 | C | KA | S | S | S | S | S | I | KA | KA |
| | 2.2 Non-flammable /Non-toxic | | KA | C | KA | SM | S | SM | SM | S | SM | KA |
| FLAMMABLE LIQUIDS | and Combustible Liquids | 3 | S | KA | C | KA | S | S | S | I | KA | KA |
| FLAMMABLE SOLIDS | 4.1 Flammable Solids | 4 | S | SM | KA | C | KA | S | S | S | KA | SM |
| | 4.2 Spontaneously Combustible | | S | S | S | KA | C | KA | S | I | KA | KA |
| | 4.3 Dangerous When Wet | | S | SM | S | S | KA | C | KA | S | SM | SM |
| OXIDISING SUBSTANCES | 5.1 Oxidising Agents | 5 | S | SM | S | S | S | KA | ! | S | KA | KA |
| | 5.2 Organic Peroxides | | I | S | I | S | I | S | S | C | KA | KA |
| TOXIC SUBSTANCES | | 6 | KA | SM | KA | KA | KA | SM | KA | KA | C | SM |
| CORROSIVE SUBSTANCES | | 8 | KA | KA | KA | SM | KA | SM | KA | KA | SM | ! |

**LEGEND**

| | | | | | |
|---|---|---|---|---|---|
| C | **SHOULD BE COMPATIBLE.** Consult the SDS or supplier about requirements for individual substances. | S | **SHOULD BE SEGREGATED** by at least 5m and kept in separate compounds or building compartments. | SM | **SEGREGATION MAY BE NECESSARY.** Consult the SDS or supplier. |
| ! | **COULD BE INCOMPATIBLE** or react dangerously. Consult the SDS or supplier about requirements for individual substances. | I | **ISOLATION REQUIRED.** Dedicated stores or storage cabinets are recommended. Adequate separation from other buildings and boundaries is required. | KA | **SHOULD BE KEPT APART** by at least 3m. Consult the SDS or supplier. |

**MAXIMUM MINOR STORAGE QUANTITIES**

| Description | Quantity (kg or L) | | | |
|---|---|---|---|---|
| | PG I | PG II | PG III | Combustible Liquids |
| Total quantity of all dangerous goods | 25 | 250 | 1000 | 1500 |

**DEDICATED COMPRESSED GAS STORE UNDER AS 4332:2004**

| Class / Sub-risk | 2.1 | 2.2 | 2.2 / 5.1 | 2.3 or 2.3/8 |
|---|---|---|---|---|
| 2.1 | C | C | KA | KA |
| 2.2 | C | C | C | C |
| 2.2 / 5.1 | KA | C | C | KA |
| 2.3 or 2.3/8 | KA | C | KA | C |



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