GOLDFFX
Users Guide 2013
GOLDFFX Users Guide, Version GFX1.0_2013

This guide is developed based on the GoldFFX Application. It is not intended to complete training on “how to use the application” as an accredited course. This is a second generation document for the application release version number; v1.0.21.2445.

For more information, contact Chemwatch. [see contact details in the section “Help and Support”]

Emergency Services

Subscribers to Chemwatch Applications are entitled to use the Chemwatch Emergency Response Line for Australia and International Contact.

Contact in Australia

Toll Free Australia: 1800 039 008

International Contact : +800 2436 225

Authored by Chemwatch®

Chemwatch
1227 Glen Huntly Road
Glen Huntly
Victoria 1363
Australia
Table of Contents

Introduction to Chemwatch................................................................. 5
  Chemwatch Application........................................................................ 5
  Workplace Health and Safety............................................................... 6
  Getting Help and Support................................................................... 7
  Chemwatch Contacts.......................................................................... 8
  Help and Live Support....................................................................... 8

1.0 Introduction to Chemwatch .................................................................. 10
  1.1 Introduction to the System.............................................................. 11
    1.2.1 Application Settings Configuration........................................... 13
      1.2.1.1 Filter Settings...................................................................... 13
      Activity - Setting Up General Filters.............................................. 14
      Activity - Setting Up Advanced Filters.......................................... 15
    1.2.2 Security and User Access......................................................... 16
    1.2.3 Application User Interface Tools, Buttons and Icons............... 16

2.0 Searching the Database..................................................................... 17
  2.1 Search Options.............................................................................. 19
  2.2 Search for Vendor (M)SDS............................................................. 22
    2.2.1 Search for Vendor (M)SDS by Material Name........................... 22
      Activity - Search for Vendor (M)SDS by Material Name................ 24
      Activity - Apply Temporary Filter Settings................................... 24
    2.2.2 Search for Vendor (M)SDS by Vendor Name............................. 25
      Activity - Search for Vendor (M)SDS by Vendor Name................... 26
    2.2.3 Search for Vendor (M)SDS by Material and Vendor................ 27
      Activity - Search for Vendor (M)SDS by Material and Vendor......... 27
  2.4 Search for Other Types of Reports................................................. 27
    2.4.1 Search and display Gold (M)SDS.............................................. 29
      Activity - Search for a Material to display a Gold (M)SDS........... 30
    2.4.2 Search and display a Mini (M)SDS............................................ 31
      Activity - Search for a Material to display a Mini (M)SDS............. 32
    2.4.3 Search for Emergency Information......................................... 33
      Activity - Search for Emergency First Aid, Spills, Fire Fighting, Doctor Information........ 33
    2.4.4 Search for Labels................................................................... 34
2.5 Printing, Emailing, Saving Lists, (M)SDS and Reports ......................................................... 35
2.6 Advance Search .................................................................................................................. 36
   Activity - Apply Advanced Search by Material ...................................................................... 37
   Activity - Apply Advanced Search by for both Material and Vendor Names.............................. 37
   Activity - Apply Advanced Search by Vendor Search ............................................................ 38

3.0 (M)SDS Structure and Format .......................................................................................... 39
3.1 (M)SDS Structure and Contents ....................................................................................... 39
3.2 (M)SDS Format ................................................................................................................ 39
3.3 Classification of Substances or Chemicals ......................................................................... 40

4.0 Folders, Manifest Stores and Jobs Tree Structure ............................................................. 40
4.1 The Folders Tree Structure ............................................................................................... 42
   4.1.1 Creating Folders ........................................................................................................ 43
   4.1.2 Editing Folders .......................................................................................................... 43
   4.1.3 Search for Folders ..................................................................................................... 44
   4.1.4 Drag and Drop Folders ............................................................................................ 45
4.2 Introduction to the Manifest ............................................................................................. 45
   4.2.1 General Manifest Overview ..................................................................................... 45
   4.2.2 Manifest Tree Structure .......................................................................................... 46
      4.2.2.1 Creating Areas, Sections and Locations .............................................................. 46
      4.2.2.2 Editing Stores .................................................................................................... 47
      4.2.2.3 Search for Areas, Sections and Locations .......................................................... 48
   4.2.3 Classification Data .................................................................................................... 49
      4.2.3.1 Approved Criteria Classification of Hazardous Substances ................................. 50
      4.2.3.1.1 Identification of Hazards and Risks ............................................................... 50
      4.2.3.2 GHS Classification of Hazardous Chemicals ..................................................... 52
         4.2.3.2.1 Identification of Hazards ............................................................................ 53

5.0 Adding and Distributing Materials .................................................................................. 56
5.1 Adding Materials - Stocking your stores ......................................................................... 56
   Activity - Adding or Copying Materials into Store ............................................................... 56
5.2 Distributing Materials ..................................................................................................... 58
   5.2.1 Copying Materials ..................................................................................................... 58
   5.2.2 Moving Materials ..................................................................................................... 59
   5.2.3 Deleting Materials .................................................................................................... 60
Introduction to Chemwatch

Chemwatch is the largest supplier of independently researched (M)SDS and other related chemical data. Chemwatch provides a fully managed service to control, assess chemicals and cover risks within an enterprise or organisation by developing off-line and online application software which uses a global database. The application modules are tailored towards chemicals management to meet organisational obligations for specific businesses throughout the world such as emergency services, hospitals, governments, education institutions (universities, schools and research), the military, unions, pharmaceuticals, manufacturing and automotive industries. Chemwatch continuously upgrades the programs to meet current legislative arrangements across the world with special emphasis on jurisdicational requirements to meet compliance regulatory instruments. Some of the services that Chemwatch provides are listed below:

Chemwatch Application

Chemwatch provides the following services to clients:

(M)SDS Management

- (M)SDS Management through a repository of more than 13 million (M)SDS
- (M)SDS Updates (older than 5 years) and review service
- Regulatory updates and review of ingredients of each material
- (M)SDS authoring, data back-up and restoration
- On-line Requests for new MSDS

(see Acquisitions of MSDSs in Glossary)

Project Tracking of Requisitions

- Provision of (M)SDS system history of material inventories and manifests
- Project tracking of all PTNs and (M)SDS within your own inventory
- Regulatory alerts, Vendor status reports and (M)SDS update report

Customer Service, Help and Support and Training

- Requests for updated versions of supplier (M)SDS and General compliance issues

(see Acquisitions of MSDSs in Glossary)

- Technical IT related service
- Helpdesk troubleshooting and remote control
- Chat service online for instantaneous live support to queries
- Onsite/Online training

Regulatory Service

- Regulatory Information and related service for compliance
- Classification of chemicals (hazardous and non-hazardous), Dangerous Goods
- Chemical Data (searches by CAS, EINECS, METI, FEMA, C.I. etc)
- Regulatory lists and many more…
The GoldFFX application provides employers and employees with a platform to manage hazardous substances and dangerous goods by using a web-based database system as means to providing access to (M)SDS on the cloud, create Manifests and conduct task based risk assessments. The application draws from a library with a collection of more than 13 million (M)SDS (and counting...) that is maintained by Chemwatch’s global database system. This program is configured into specific modules and their respective functionalities. The following table illustrates the modules and their accompanying main functionality outputs.

Table 1: Program modules and main functionality elements

<table>
<thead>
<tr>
<th>Program/Application</th>
<th>No of Modules</th>
<th>Modules and User Interface Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>BACKPACK</td>
<td>2</td>
<td>Materials, Folders</td>
</tr>
<tr>
<td>COBRA/COSHH</td>
<td>3</td>
<td>Materials, Folders, Risk Assessment</td>
</tr>
<tr>
<td>GOLDFFX</td>
<td>5</td>
<td>Materials, Folders, Manifest, Risk Assessment, D-Gen</td>
</tr>
<tr>
<td>All Applications</td>
<td>1</td>
<td>General Global Settings, Administrative (Security) Settings</td>
</tr>
</tbody>
</table>

Configuration Set Up of the User Interface.
The GoldFFX application user interface is configured with the basic application called Backpack and a middle management application called FFX. The full package of the suite comprises of Backpack, CFFX, D-Den and also contains a configuration that provides PCBUs with a platform to conduct risk assessments.

Chemwatch’s cloud Application Upgrade Process
Chemgold 2 application was first upgraded in 2009 to CG3. The latter program’s first upgrade in 2013, is the GOLDFFX application with a totally new user interface and specific elements that were not part of the last upgrade of CG3. The standard upgrade incorporates new modalities that are in line with the current IT specifications and user-friendly web based tools used in the world wide web industry infrastructure. these include drag and drop functionalities, mouse right click modalities, a new tree structure behaviour and administrative security elements such as folder permissions structure, hide/un-hide elements, language user interface elements and creating label templates and many more...For more information to what user interface elements of your program are applicable to your organisation based on licence agreements, please contact our customer service team for assistance.

Workplace Health and Safety
The Australian Federal Government have extensively legislated instruments and protocols to ensure that all PCBUs meet the required application of the respective laws in chemical safety at the workplace and the environment. All chemical users have the responsibility to follow the rules specified in the Model WHS laws for the harmonisation of work health and safety laws. The classification of workplace hazardous chemicals introduced in the NOHSC model regulations since 1994 and the Dangerous Goods standards in 2001 and their subsequent adoption by jurisdictions were classified by the Approved Criteria for Classifying Hazardous Substances and the Australian Dangerous Goods Code for Transport by Road and Rail (ADG Code). The States and Territories implement their own systems to manage workplace health and safety risks based on the national standards and regulations which stem from the WHS Act. A new system of chemical classification and hazard communication on labels and Safety Data sheets based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals was adopted through the National Model Work Health and Safety Regulations in 2012. Transitional
arrangements have been put in place providing a five year transition period for moving to the new GHS system that will allow the NOHSC criteria and the GHS system to be used concurrently by industry. The scope and application of compliance standards follows an institutional framework in chemicals management, i.e. Philosophy, Legislative Context, Content and Application.

### Philosophy
- **Identify the Hazard** (potential to cause injury or illness and can apply to substances)
- **Assess the Risk** (probability and consequences of occurrence of injury or illness. Risk will depend on factors such as the nature of the hazard, the degree of exposure and individual characteristics)
- **Institute appropriate Controls** (hierarchy of controls involves elimination, substitution, isolation, engineering controls, safe work practices and personal protective equipment)

### Legislative Framework
- **Act**
- **Regulations**
- **Australian Standards**
- **Approved Codes of Practice**
- **Guidance Notes**

### Content and Information provision, Material Safety Data Sheets (MSDS)
- (M)SDS provision is a legal requirement for the management of workplace hazardous substances and risk assessments for chemicals handled, used and stored at the workplace.

### Application (Hazardous Substances Risk Assessment)
All PCBUs are required to provide access to (M)SDS for the chemicals located at the workplace for users of chemicals at the workplace to ensure that they are well versed with information on hazards, risks and potential exposure to hazardous substances used in a work activity; storage, handling and transportation of dangerous goods by road and rail.

⚠️ The main objective of the application is provide users of chemicals at the workplace with access to (M)SDS in order to meet compliance requirements pertaining to information on usage, storage, and handling of hazardous substances and transportation of dangerous goods. Officers must exercise 'due diligence' to ensure that the business or undertaking complies with the WHS Act and Regulations.
## Getting Help and Support

### Chemwatch Contacts

#### Table 2: Contacts Information

<table>
<thead>
<tr>
<th>Department Service</th>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Service</td>
<td><a href="mailto:customerservice@chemwatch.net">customerservice@chemwatch.net</a></td>
<td>+61 3 9573 3157</td>
</tr>
<tr>
<td>Registration</td>
<td><a href="mailto:registration@chemwatch.net">registration@chemwatch.net</a></td>
<td>+61 3 9573 3100</td>
</tr>
<tr>
<td>Training Enquiries</td>
<td><a href="mailto:training@chemwatch.net">training@chemwatch.net</a></td>
<td>+61 3 9573 3114</td>
</tr>
<tr>
<td>Helpdesk Enquiries</td>
<td><a href="mailto:helpdesk@chemwatch.net">helpdesk@chemwatch.net</a></td>
<td>+61 3 9573 3137/38</td>
</tr>
<tr>
<td>Compliance Enquiries</td>
<td><a href="mailto:regs@chemwatch.net">regs@chemwatch.net</a></td>
<td>+61 3 9573 3177</td>
</tr>
<tr>
<td>IT Technical Support</td>
<td><a href="mailto:it@chemwatch.net">it@chemwatch.net</a></td>
<td>+61 3 9573 3151</td>
</tr>
<tr>
<td>Accounts Enquiries</td>
<td><a href="mailto:accounts@chemwatch.net">accounts@chemwatch.net</a></td>
<td>+61 3 9573 3123</td>
</tr>
<tr>
<td>Sales Enquiries</td>
<td><a href="mailto:sales@chemwatch.net">sales@chemwatch.net</a></td>
<td>+61 3 9573 3104</td>
</tr>
<tr>
<td>General Enquiries</td>
<td><a href="mailto:info@chemwatch.net">info@chemwatch.net</a></td>
<td>+61 3 9573 3100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fax +61 3 9572 4777</td>
</tr>
<tr>
<td>Emergency Information</td>
<td><a href="mailto:info@chemwatch.net">info@chemwatch.net</a></td>
<td>+61 3 9572 4700</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toll free in Australia 1800 039 008</td>
</tr>
</tbody>
</table>
Help and Live Support

The Help Icon

The Help icon within the application GUI links to the frequently asked questions. Generally, Help-desk department can be contacted through email or telephone line (see Chemwatch Contacts). All troubleshooting inquiries can be sent to the email address: helpdesk@chemwatch.net

Live Support On-line

Chemwatch provides technical live support over the Internet within the application. To activate the chat service panel, click on the Live Help Link button (top left icon within the Backpack program UI). The chat service panel will open another side window to fill in the fields marked with Required Fields* to send your question. Then a help-desk operator will answer the call to begin a live chat. There are various departments you can choose from. The department options available depend on the nature of the question. The help-desk operator will redirect your query to the appropriate department where applicable for further investigation of the issue.

Emergency Services

For Emergency Support; refer to page 1
1.0 Introduction to Chemwatch

What's new in GoldFFX application?

The GoldFFX program has developed and modelled with a modern UI and user friendly features to make it more intuitive for users. The list below highlights some of the new functionalities to improve user predictability and usage.

Table 3: Feature and UI Elements

<table>
<thead>
<tr>
<th>Feature</th>
<th>UI Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto-complete search</td>
<td><img src="image" alt="Auto-complete search" /></td>
</tr>
<tr>
<td>Preferred names Management</td>
<td><img src="image" alt="Preferred names Management" /></td>
</tr>
<tr>
<td>Filtering Tools</td>
<td><img src="image" alt="Filtering Tools" /></td>
</tr>
<tr>
<td>Material Distribution</td>
<td><img src="image" alt="Material Distribution" /></td>
</tr>
<tr>
<td>Folder Management</td>
<td><img src="image" alt="Folder Management" /></td>
</tr>
<tr>
<td>Generate (M)SDS batches</td>
<td><img src="image" alt="Generate (M)SDS batches" /></td>
</tr>
</tbody>
</table>
1.1 Introduction to the System

This *User’s Guide, Version GFX 1.0, 2013* is the first version based on the use of the *GoldFFX application* which is the first release of the CG3 application upgrade. For both novice and experienced users, they will be totally new user interface elements of the GoldFFX application for your navigation and use. First time users, do not be alarmed, you will be guided through the user interface elements during e-learning and we also have the availability of a help tool that is searchable for any itemised list of sections within the application’s help icon. Refer to the glossary index for the table of tools and definitions at the end of this guide.

**Web Browsers Recommended**

The *GoldFFX* program is a web based application accessible through the Internet. It is designed to function best in most modern web browsers and has improved performance and speed. Most interactive features within the program work best in the latest browser versions. Microsoft Internet Explorer 7 is not fully supported in the current program functionalities as it contains limitations such as slowness in processing java scripts and the lack of vital modern technologies which have become a standard in web design, which are no longer supported by the manufacturer.

### Web browsers recommended

- Internet Explorer 9/higher versions
- Firefox 10/above
- Safari 5 or above
- Google Chrome

**Program Login**

Generally a web address is provided by the administrator for manual login. In this case, a login user identification name and password are required for direct access to the program for authentication purposes. Chemwatch Administrator sends out an official email to your organization’s main contact person. Please contact Help-desk at helpdesk@chemwatch.net for more information. Below is the main login screen to enter login details to access the database program.

<table>
<thead>
<tr>
<th>Step</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Type your user name in the User ID text box</td>
</tr>
<tr>
<td>2</td>
<td>Type your Password in the password text box</td>
</tr>
<tr>
<td>3</td>
<td>Press the Login button</td>
</tr>
</tbody>
</table>

Optional Select the checkbox to Remember Password
GoldFFX

The main objective of the web based database system is provide access to (M)SDS for all users of chemicals at the workplace to meet compliance requirements pertaining to information on usage, storage, handling of hazardous substances and transportation of dangerous goods for their control and management. The full package of the application is designed in seven main user interface modules.


GoldFFX Modules

Figure 1: GoldFFX User Interface Elements

Figure 2: Logging out of the application

The log out icon is located in the Main Tool-bar at the top right corner of the GUI as shown above. Clicking on this icon logs out the user account back to the login screen. Users with auto login will be directed back to the refreshed screen mode.
1.2.1 Application Settings Configuration

1.2.1.1 Filter Settings

**Filter Settings**

**Global Filter Settings**

The general **Global Filter Settings** configuration of the program has a number of options to select applicable parameters that will be tailored towards specific search results and the way you view the contents of chemicals lists, registers within the folder/manifest tree structure and search results. The search results will depend on the default administrative filter conditions applied. Ensure your filters are set to your desired settings.

A user account may be set to particular filter conditions dependent on the configuration of the organisation based on its jurisdictional operations. Note that the latest documents will default to a five year period as per legislative requirement for compliance on using the latest manufacturers MSDSs that are current and up to date. The filter settings are also desktop dependent, changes made in your computer will not affect another user with the same user account in another desktop. The filter conditions for English MSDSs will exhaust the following logical sequence within the database.

<table>
<thead>
<tr>
<th>Filter</th>
<th>Country of MSDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language</td>
<td>Australia ➔ UK ➔ USA ➔ Canada ➔ Global</td>
</tr>
</tbody>
</table>

For more information in filter definitions, refer to the glossary table: [Filters and Definitions](#)
**Advanced Filter Settings**

Advanced Filters can be applied to a fold/store to view (M)SDS applicable to a particular country/language. These settings are useful for a globally operating organisation which has sites in different countries to allow users from those locations to view relevant (M)SDS applicable to their jurisdiction to meet regional or country specific compliance.

⚠️ Advanced Tab may not be available on your user interface if the administrator has set it up “not” to have access to this feature.

**Activity - Setting Up General Filters**

Task Description for Setting Up Global Filter Conditions for MSDS Format

<table>
<thead>
<tr>
<th>Global Filters</th>
<th>Task Description: Setting Up Filters</th>
</tr>
</thead>
</table>

**The Set Up Tool**

- **Filter by Country, Language, MSDS Format:**
  1. Click on the Settings link
  2. Show Part Number column as well as preferred names from 2 to 9 below.
  3. Press the Submit button to save current filters
  4. Check the documents in folders/stores or by searching for a material from the database if they reflect the filter conditions set. General users will view or search for materials utilizing the filter conditions set up by the organisation’s administrator for the application.

- The program admin sets up Filter Settings for your program and specific attributes for general users. Optional: general users may or may not have access to the Filter Settings module
- Filter conditions affect program search results for country of MSDS, MSDS view from Folders/Stores, type of MSDS format
The application also allows setting up temporary filters when viewing a list of documents [Document List]. An activity for this exercise is illustrated in section 2.2.1.

**Activity - Setting Up Advanced Filters**

Task Description for “Setting Up Advanced Filters”

<table>
<thead>
<tr>
<th>Advanced Filters</th>
<th>Task Description: Setting Up Advanced Filters</th>
</tr>
</thead>
</table>

**Settings Link**

<table>
<thead>
<tr>
<th>Settings</th>
<th>Notes</th>
</tr>
</thead>
</table>

1. Click on the “Setting” icon
2. Select **Advanced Tab** and expand Tree directories to view folders/stores
3. Click folder checkbox to select *folder name* to apply language/country
4. Click on the Languages text field to choose *language* from languages list, e.g. French
5. Click on the Countries text field to choose *country* from the list of countries, e.g. France
6. Click on the button to save current filters assigned to that particular folder

» Folder [F] confirmation of applied settings

» Multiple languages/countries can be set by choosing multiple languages/countries for the same folder/store. To remove a language/country filter, click on the button relevant to filter.

» Filter conditions may be set for multiple countries and languages within the same folder/store.
1.2.1.2 Security and User Access

The User Access tab will be visible to the Administrator. The administrator of the GOLDFFX program within your organisation has the sole responsibility of creating users, assign user roles and setting up Folder permissions. The administrator will consider whether the access will be for specific users or work positions. The security model and access follows the Microsoft Folders access model. A separate security manual will be provided to administrators of the program. The folder permissions attributes may be set for users as illustrated in the image below.

1.2.1.3 Application User Interface Tools, Buttons and Icons

The user interface tools and buttons are defined in the glossary for reference in this user guide. However, if you are using the live program, you can access an online help icon within the application as shown below, which loads a help search platform for your navigation and reference. The Help icon links to the frequently asked questions. If you are not able to find the relevant information, send an email to helpdesk@chemwatch.net
2.0 Searching the Database

Databases enable users to identify, locate and obtain information across a range of database queries depending on the type of data you want. The Chemwatch database is global and contains very complex and extensive data relevant to chemicals in general. It contains a wide range of suppliers information, Material Safety Data Sheet, Emergency Information, Labels information, Storage and locations information of chemicals and chemicals inventories, legislative lists such OELs, environmental and toxicity data, amongst more. This search module will introduce you to extensive ways of finding information, (M)SDSs and generally how to search the electronic database by performing simple keyword searches based on the following search criteria.

**SIMPLE MODE SEARCH**

1. Search by Material Name

![Search by Material Name](image)

2. Search Vendor Name

![Search by Vendor Name](image)

3. Search by Material and Vendor Names

![Search by Material and Vendor Names](image)

4. Search by specific index options

![Search by Specific Index Options](image)
ADVANCED MODE SEARCH

5. Optional combination searches including hazards

6. Database Reference Options [Search Panel]

The proceeding sections discuss and illustrate the above various search options available in Chemwatch’s global database system using the GOLDFFX application. There are two main options to choose from, namely: **Full or Own options**.

**Full Database Search Option [Search Panel]**

| Full | Full | select (complete Chemwatch Global Database) | search from the complete database |

**Own Database Search Option [Search Panel]**

| Own | Own | select (Customised Register) or also referred to as an Inventory | search from the organisational material register (own inventory) |
7. Material Search Auto-complete Function

The name of a chemical can be used as a general indicator of what you are looking for in the database. The name of a material can be a pure chemical name, trade name, product name, synonym, preferred name or shipping name. The auto-complete option in material Name search field provides a list of related family names linked as you type the text within the name field. A worked example is shown below.

The Search Panel is applicable across the UI application modules; Materials, Folders, Manifest and Risk Assessment. The following sections describe the search options available within the application.

2.1 Search Options

The search options for simple mode are detailed in the table below. The table illustrates common Search Options by Name of Material and using Indexes to find materials/chemicals for specific (M)SDS.

### Simple Mode Material Search

<table>
<thead>
<tr>
<th>Search Option</th>
<th>Task Description: General Search</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Search by Name</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Search by</strong></td>
<td>Searching by <strong>Name</strong> can include the following options;</td>
</tr>
<tr>
<td></td>
<td>• Search by chemical name, e.g. acetone</td>
</tr>
<tr>
<td></td>
<td>• Search by product name e.g. thinner</td>
</tr>
<tr>
<td></td>
<td>• Search by synonym, e.g. 2-propanone</td>
</tr>
<tr>
<td></td>
<td>• Search by preferred name</td>
</tr>
</tbody>
</table>

- Material Name
- Product Name
- Chemical Name
- Preferred Name
Drop Down Menu for other search options (indexes)

CAS

Chemical Abstract Substance Number

- Search for acetone by its CAS number: 67-64-1

Simple Mode Material Search Indexes

The table below shows illustrations of other Search Options using indexes

<table>
<thead>
<tr>
<th>CW Number</th>
<th>Chemwatch Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1090</td>
<td>Chemwatch assigns each chemical a Chemwatch Number (CW number) in the database system such each CW number is searchable and displays an exact match of the MSDS.</td>
</tr>
<tr>
<td></td>
<td>Search by CW number 1090 displays a list of material matches assigned CW1090.</td>
</tr>
</tbody>
</table>

EINECS No

(European Inventory of Existing Commercial Chemical Substances)

These are substances, excluding polymers, which were commercially available in the EU from 1 January 1971 to 18 September 1981. These were considered registered...
UN numbers or UN IDs are four-digit numbers that identify hazardous substances, and articles (such as explosives, flammable liquids, toxic substances, etc.) in the framework of international transport. A chemical in its solid state may receive a different UN number than the liquid phase if their hazardous properties differ significantly; substances with different levels of purity (or concentration in solution) may also receive different UN numbers. UN numbers range from UN0001 to about UN3500 and are assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods. They are published as part of their Recommendations on the Transport of Dangerous Goods, also known as the Orange Book. There is no UN number allocated to non-hazardous substances.

DG Class

Dangerous Goods (DG) are divided into classes on the basis of the specific chemical characteristics producing the risk. Dangerous Goods include materials that are radioactive, flammable, explosive, corrosive, oxidizing, asphyxiating, bio-hazardous, toxic, pathogenic, or allergenic. There are 9 main classes of UNDG classification.

| Class 1 | Explosives |
| Class 2 | Gases |
| Class 3 | Flammable Liquids |
| Class 4 | Flammable Solids |
| Class 5 | Oxidizing Agents and Organic Peroxides |
| Class 6 | Toxic and Infectious Substances |
| Class 7 | Radioactive Substances |
| Class 8 | Corrosives |
| Class 9 | Miscellaneous |

All the DG Classes can be searched by the class number, e.g. DG Class1 will display materials that are explosives. They are designated diamonds to each class as shown in the left column.

Packing Group

Packing groups are used to indicate the degree of danger associated with dangerous goods within a given class.

| Packing Group I (PG I) | Great Danger |
| Packing Group II (PG II) | Medium Danger |
| Packing Group III (PG III) | Minor Danger |

User Part No

Part numbers can be stock numbers assigned to material MSDSs by users. User Part Numbers can be used to search for those MSDSs and these can be summarised as your own stock numbers or code assigned.
**Vendor Part No**

Vendor Part numbers are assigned to materials’ MSDSs and these can range from product codes or product numbers assigned by manufacturers. These are normally found in Section 1 of any vendor MSDS. Refer to Part Number section above in this table for more information. Vendor Part Numbers can be used to search for those MSDSs and these can be summarised as products numbers or codes designated by manufacturers into their MSDSs.

**PG**

Search for Dangerous Goods by Packing Group number (PG) I, II or III.

**Pure**

Pure substance search. *What is a PURE Substance?* A pure substance is a chemical substance that is a form of matter that has constant composition and characteristic properties. Pures (as can be termed) cannot be separated into components by physical separation methods and they can be solids (diamond), liquids (water) or gases (oxygen).

**R-Code**

Search by Risk Code (R-Code), e.g. R11 –Highly Flammable or R12 –Extremely Flammable

**Sub –Risk**

Search by Dangerous Good Sub-Risk. Dangerous Goods may contain sub-risks in the classification code, e.g. DG Sub Risk 5.1

**ISSDT**

Issue Date

Search for a material by ISSDT (Issue Date)

---

2.2 Search for Vendor (M)SDS

2.2.1 Search for Vendor (M)SDS by Material Name

Generally, searching for (M)SDS by material name only using the Chemwatch Full database reference [FULL option] will display search results dependent on these variables;
1. Program Filter Settings

- Latest Version - (M)SDS that is current, updated version or reviewed version that is the **DOM is NOT MORE THAN 5 years**
- The document result will be language and country dependent, e.g. English/Australia
- Type of Report to display must be set to (M)SDS option

2. If language/country **(M)SDS is NOT FOUND** or not available in the Chemwatch Database, the program will exhaust the logical sequence filter

<table>
<thead>
<tr>
<th>Filter</th>
<th>Country of MSDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language</td>
<td>Australia ➔ UK ➔ USA ➔ Canada ➔ Global</td>
</tr>
</tbody>
</table>

3. Temporary filtering

If there are more than one (M)SDS, a document list will load all the available supplier (M)SDS with relevant issue date(s). In this document list, you will choose the applicable document to display, print, email or save it to your external drive or pc or simply display it to read it or make reference to a particular section of interest.

4. Unavailability of (M)SDS

If you cannot find the (M)SDS you want, send a request to Customer Service to source it for you. Contact details listed below. There are acquisition charges that may apply depending on licence agreements.[see Acquisition of MSDS in the Glossary for more information]

<table>
<thead>
<tr>
<th>Department Service</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Service</td>
<td><a href="mailto:customerservice@chemwatch.net">customerservice@chemwatch.net</a></td>
<td>+61 3 9573 3157</td>
</tr>
</tbody>
</table>

These conditions apply to all types of searches within the application.

5. Privatised (M)SDS or Hidden Materials

Some (M)SDS can be privatised by the manufacturer and hence, you will be required to fill in your information and details for the request to access the (M)SDS. Chemwatch will provide you with the relevant update once the request has been approved by manufacturer/supplier.
Activity - Search for Vendor (M)SDS by Material Name

<table>
<thead>
<tr>
<th>Search Option</th>
<th>Task Description: Search by Name for a Vendor MSDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vendor MSDS</td>
<td>Searching by Name can include the following options;</td>
</tr>
<tr>
<td></td>
<td>1. Click on the Vendor MSDS button on the report panel to activate</td>
</tr>
<tr>
<td></td>
<td>2. Search by chemical name, e.g. type the name “acetone” in the Name/CAS text field</td>
</tr>
<tr>
<td></td>
<td>3. Select Full (Chemwatch Global Database) option for the search reference database</td>
</tr>
<tr>
<td></td>
<td>4. Press on the button to search for vendor (M)SDS</td>
</tr>
<tr>
<td></td>
<td>5. Select chemical or document name to display Vendor (M)SDS for the chemical.</td>
</tr>
</tbody>
</table>

If there's more than one supplier, a list of documents will display.

6. Click on the “document name” to display vendor MSDSs

7. Content and structure of a Vendor MSDS is discussed in proceeding sections.

Activity - Apply Temporary Filter Settings

Task Description for Filtering a Document List for specific Vendor MSDS

<table>
<thead>
<tr>
<th>Search Option</th>
<th>Task Description: Filter a Document List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary Filtering</td>
<td></td>
</tr>
</tbody>
</table>
Filter by specified fields from current filter panel

Filter by **Vendor Name**:

1. Type a material name in the “Name” text field, e.g. “acetone”
2. Select reference database “Full” (Global Chemwatch database)
3. Click on the “Search” button
4. Select chemical name from the search resultant material list to display a document list of Vendor MSDS

5. Select the Vendor Filter from the Filter Options panel
6. Click on a “Vendor Name” from the vendor name drop down list, e.g. 3M OR filter by using the custom filter panel

7. Click on document name to display vendor MSDS

### 2.2.2 Search for Vendor (M)SDS by Vendor Name

The term “Vendor” is used interchangeably with the terms “Manufacturer or Supplier” in the business industry. To search for a vendor, type in the name (or part of) of the manufacturer or supplier name in the vendor field. The steps illustrated in the following activity shows how to search the database for applicable or available parent...
manufacturer and the respective subsidiary companies where the manufacturer operates. Global companies (parent business) may have subsidiary businesses operating in various countries and the program will only display a list of materials produced from that subsidiary jurisdiction selected from the vendor tree search results.

Activity - Search for Vendor (M)SDS by Vendor Name

<table>
<thead>
<tr>
<th>Search Option</th>
<th>Task Description: Search by Vendor for a Specific (M)SDS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vendor Search</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Search by</strong></td>
<td>Searching by <strong>Vendor Name</strong> can include the following options;</td>
</tr>
<tr>
<td><strong>Vendor, Supplier, Manufacturer</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Click on the Vendor (M)SDS report button</td>
</tr>
<tr>
<td>2</td>
<td>Search by supplier name, e.g. type the name “Merck” in the Vendor text field</td>
</tr>
<tr>
<td>3</td>
<td>Select Full (Chemwatch Global Database) option for the search reference database</td>
</tr>
<tr>
<td>4</td>
<td>Click on the button</td>
</tr>
<tr>
<td>5</td>
<td>Select and expand the vendor address/location to choose respective address to display a list of available MSDSs from that location</td>
</tr>
<tr>
<td>6</td>
<td>Click on the &quot;material name&quot; to display vendor MSDSs</td>
</tr>
</tbody>
</table>
### 2.2.3 Search for Vendor (M)SDS by Material and Vendor

Searching the database by entering both the material name and the vendor(supplier) will display the current (M)SDS version.

#### Activity - Search for Vendor (M)SDS by Material and Vendor

<table>
<thead>
<tr>
<th>Search Option</th>
<th>Task Description: Search by both Material and Vendor Names for a Specific (M)SDS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Material and Vendor Name Search</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Search by</strong></td>
<td><strong>Material and Vendor Name</strong> can include the following options;</td>
</tr>
<tr>
<td>Material and Vendor, Supplier, Manufacturer</td>
<td></td>
</tr>
<tr>
<td>1 Click on the Vendor (M)SDS report button</td>
<td></td>
</tr>
<tr>
<td>2 Click on the “simple mode” button</td>
<td></td>
</tr>
<tr>
<td>3 Type the material name e.g. “Acetone” in the <strong>Name</strong> field and vendor name “Merck” in the <strong>Vendor</strong> text field</td>
<td></td>
</tr>
<tr>
<td>4 Select Full (Chemwatch Global Database) option for the search reference database</td>
<td></td>
</tr>
<tr>
<td>5 Click on the <strong>button</strong></td>
<td></td>
</tr>
<tr>
<td>6 Click on the &quot;<strong>material name</strong>&quot; to display vendor MSDSs</td>
<td></td>
</tr>
</tbody>
</table>

→ (M)SDS displays!
2.4 Search for Other Types of Reports

Simple Mode Search for Reports - Vendor MSDS, Gold MSDS, Mini MSDS, Emergency, Labels

The Reports Panel UI contains five main reports to search for specific materials. The first step is to select a report icon and then conduct a search for a material to display a particular report.

<table>
<thead>
<tr>
<th>Type of Report</th>
<th>Description</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vendor MSDS</td>
<td>Document required by regulatory standards for chemicals manufactured and supplied for use at the workplace. These documents are a subject to a five year review to meet compliance requirements.</td>
<td>Manufacturer or Supplier</td>
</tr>
<tr>
<td>Gold MSDS</td>
<td>Document written by Chemwatch as part of MSDS authoring service provide to clients who have purchased Chemwatch license. This document can be customised to different formats based on country legislation applicable, Local format, GHS format, REACH, OSHA, etc.</td>
<td>Chemwatch</td>
</tr>
<tr>
<td>Mini MSDS</td>
<td>A one page document, color coded depicting the hazard rating for a chemical. This document provides a summary about the material hazard, ADG 7</td>
<td>Chemwatch</td>
</tr>
</tbody>
</table>
### Mini MSDS

Classification and is also dependent on the availability of Gold MSDS for that specific material.

### Labels

Global templates available as options to select the desired label size. The label formats are dependent on legislative jurisdiction: Commonwealth, CLP, DPD-CLP, GHS, Chinese and Chemwatch labels. These labels are also dependent on the availability of the Gold MSDS for that specific material.

### Emergency

This link provides information practicable control measures in case of a leak, spill or uncontrolled release of a hazardous substance. Emergency procedures are accessed through the links to First Aid data, Spills, Fire Fighting, Advice to Doctor, Chemical Incident Advisory (ChInA), Emergency Response Guide (ERG), Cautionary Response Information (CHRIS) and Emergency Response Information Cards (ERICards).

### Emergency

Displays First Aid information for the chemical in case of an emergency with specific remedies, e.g. Swallowing, Eye Contact, Skin, etc.

- Provides emergency responses to the type of Spill; Minor, Major, Land (Small, Medium) and a legend designated for more details and protective actions for a spill.
- Fire Fighting report includes Chemical Name details (UN No, Hazchem Code, Packing Group, IERG No., Immediate actions to be undertaken in case of a fire emergency.

The following section detail the respective task descriptions on how to conduct a search to display the various types of reports

### 2.4.1 Search and display Gold (M)SDS

A Gold (M)SDS is a Chemwatch authored data sheet. Chemwatch authors MSDSs for pure substances and manufacturer's MSDSs upon request by the suppliers. Chemwatch constantly conduct reviews of all their authored MSDSs to meet compliance requirements for a current [not more than 5 years], valid and authentic data sheet. All Gold MSDSs are coded with a Chemwatch number assigned to all pure substances and mixtures/products. An easier way to search for a material is to use a Chemwatch number (CW) which will display an exact match of the MSDS for the desired material or product.

⚠️ A vendor MSDS authored by Chemwatch is called a 'Wewrites' to designate it the deferential as compared to Manufacturer authored MSDS
If a Gold MSDS is NOT available for a corresponding Vendor MSDS, a message display "document not available, contact customer service". In this instance, send an email to customerservice@chemwatch.net and include your details. Most importantly, all classification data in the manifest, emergency reports information, labels, Mini MSDS depends on the availability of a Gold MSDS and many more areas of the program including Risk Assessments.

Activity - Search for a Material to display a Gold (M)SDS

<table>
<thead>
<tr>
<th>Search Option</th>
<th>Task Description: Search by Name for a Gold MSDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name/CAS Search</td>
<td>Searching by Name can include the following options;</td>
</tr>
</tbody>
</table>
| &nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&n
2.4.2 Search and display a Mini (M)SDS

The **MINI MSDS** provides a one-page summary of the Health and Safety hazards associated with the substance. The data sheet is available in a variety of languages and formats including the Globally Harmonised System (GHS) of classification of Chemical Hazards. Select desired language on from the drop down arrow menu. By default, the data sheet is displayed in ‘**English**’. Health and Safety icons display on the data sheet which comprises of: Risk Phrases (Physical and Health), Target Organs, Fire Emergency, Properties, First Aid, Storage, Controls and Safe Handling. The translation of the MINI MSDS will also assist other nationalise to view the data in their own native language for ease of reference and understanding of the scientific data. The MINI MSDS is colour coded depending on its hazard rating, e.g. Acetone will display in ‘orange’ if one of the hazard bar graph is HIGH (rated 3 for Flammability Bar) for this chemical as shown below screen shot display. The Mini MSDS is colour coded depending on its hazard rating, e.g. Acetone will display in ‘**orange**’ if one of the hazard bar graph is HIGH (rated 3 for Flammability Bar) for this chemical as shown below.

The colour coding scheme represent the hazard rating based on the nature of the hazardous chemical as classified. The hazard rating are designed by Chemwatch to depict a quick glance at the data sheet's level of the hazard based five hazard categories [Flammability, Body Contact, Toxicity, Reactivity and Chronic]. The example below shows a hazard summary for acetone as being **HIGHLY hazardous by its flammability**, moderately toxic, moderately hazardous by body contact, moderately chronic and has low reactivity.
Figure: Acetone - HIGHLY Flammable

Table: Hazard Rating and Colour Coding

<table>
<thead>
<tr>
<th>Hazard Rating</th>
<th>Description</th>
<th>Colour Code</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Non Hazardous Substance</td>
<td>Blue</td>
<td>e.g. Molasses [CW 5007-67]</td>
</tr>
<tr>
<td>1</td>
<td>Low Hazardous Substance</td>
<td>Blue</td>
<td>e.g. Chesterton Product 477-1T/CW4903-67</td>
</tr>
<tr>
<td>2</td>
<td>Moderate Hazardous Substance</td>
<td>Yellow</td>
<td>e.g. WG Herbicide [CW 26-2339]</td>
</tr>
<tr>
<td>3</td>
<td>High Hazardous Substance</td>
<td>Orange</td>
<td>e.g. Acetone [CW 1090]</td>
</tr>
<tr>
<td>4</td>
<td>Extreme Hazardous Substance</td>
<td>Red</td>
<td>e.g. Benzene [CW 1114]</td>
</tr>
</tbody>
</table>

A MINI MSDS is authored by Chemwatch and also dependent on the availability of a Chemwatch MSDS. A MINI MSDS is NOT a legal or compliance document. It is commonly used in the industry as an EMERGENCY reference data sheet.

Activity - Search for a Material to display a Mini (M)SDS

<table>
<thead>
<tr>
<th>Search Option</th>
<th>Task Description: Search by Name for a Mini MSDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mini Msds</td>
<td>Searching by Name can include the following options;</td>
</tr>
<tr>
<td></td>
<td>1. Click on the Mini MSDS button on the report panel to activate</td>
</tr>
<tr>
<td></td>
<td>2. Search by chemical name, e.g. type the name “acetone” in the Name/CAS text field</td>
</tr>
<tr>
<td></td>
<td>3. Select Full (Chemwatch Global Database) option for the search reference database</td>
</tr>
<tr>
<td></td>
<td>4. Press on the button</td>
</tr>
<tr>
<td></td>
<td>5. Mini MSDS for the chemical name “acetone” is loaded in view mode.</td>
</tr>
<tr>
<td></td>
<td>6. Translate a Mini (M)SDS into other languages by choosing a language from the “Language Menu”</td>
</tr>
</tbody>
</table>

A MINS MSDS is authored by Chemwatch and also dependent on the availability of a Chemwatch MSDS. A MINS MSDS is NOT a legal or compliance document. It is commonly used in the industry as an EMERGENCY reference data sheet.
### 2.4.3 Search for Emergency Information

**Activity - Search for Emergency First Aid, Spills, Fire Fighting, Doctor Information**

<table>
<thead>
<tr>
<th>Emergency Information</th>
<th>Task Description: Search by Material Name for Emergency Report(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Searching by Material Name to display emergency report</strong></td>
<td></td>
</tr>
<tr>
<td>1. Click on the <strong>Emergency</strong> button on the report panel to activate</td>
<td></td>
</tr>
<tr>
<td>2. Search by chemical name, e.g. type the name “acetone” in the <strong>Name/CAS</strong> text field</td>
<td></td>
</tr>
<tr>
<td>3. Select Full (Chemwatch Global Database) option for the search reference database</td>
<td></td>
</tr>
<tr>
<td>4. Press on the <strong>GO</strong> button</td>
<td></td>
</tr>
<tr>
<td>5. by default, the program displays <strong>first aid</strong> information for the chemical</td>
<td></td>
</tr>
<tr>
<td>6. click on <strong>spills</strong> button to load spills information (major or minor spills) for containment</td>
<td></td>
</tr>
<tr>
<td>7. click on <strong>fire fighting</strong> button – Displayed report</td>
<td></td>
</tr>
<tr>
<td>8. Fire Fighting report displayed</td>
<td></td>
</tr>
<tr>
<td>9. Optional: You can change the language</td>
<td></td>
</tr>
</tbody>
</table>
2.4.4 Search for Labels

<table>
<thead>
<tr>
<th>Search Option</th>
<th>Task Description: Search by Name for a Label Format and Size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Labels</strong></td>
<td>Searching by Name can include the following options;</td>
</tr>
<tr>
<td></td>
<td>1. Click on the Label button on the report panel to activate</td>
</tr>
<tr>
<td></td>
<td>2. Search by chemical name, e.g. type the name “acetone” in the Name/CAS text field</td>
</tr>
<tr>
<td></td>
<td>3. Select Full (Chemwatch Global Database) option for the search reference database</td>
</tr>
<tr>
<td></td>
<td>4. Press on the button</td>
</tr>
<tr>
<td></td>
<td>5. Click on the chemical name to load label templates panel</td>
</tr>
<tr>
<td></td>
<td>6. Label template gallery panel loads the default template. Select the drop down arrow to choose from the list of template available for the various label formats/sizes, e.g. “14 Labels per page”</td>
</tr>
<tr>
<td></td>
<td>7. Click the OK button load label template.</td>
</tr>
<tr>
<td></td>
<td>8. Template loads selected label format/size.</td>
</tr>
<tr>
<td></td>
<td>9. Print, mail or save label using the toolbar icons.</td>
</tr>
</tbody>
</table>
### 2.5 Printing, Emailing, Saving Lists, (M)SDS and Reports

Materials lists and MSDSs can be **printed, saved** or **emailed** through the task bar icons within a chemical list, document list and on MSDS view. The table below illustrates the stepwise tasks to follow through the activity.

#### Activity – Printing Vendor MSDS

<table>
<thead>
<tr>
<th>Materials Module</th>
<th>Task Description: Printing Vendor MSDSs as a batch file</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printing Vendor MSDSs from ‘Show Own’ list</td>
<td></td>
</tr>
<tr>
<td><strong>Printing Selected Material</strong></td>
<td></td>
</tr>
</tbody>
</table>

1. Press on ‘Show Own’ icon
   → Materials list displays
2. Click the print icon on the task bar. The print panel displays options
3. Select the “Vendors” option under MSDS
4. Select header checkboxes alongside each material name
   → **Optional:** Select checkbox to print all materials listed
5. Press the submit button from the print panel.

**Optional Update Menu**

Choose any newly updated MSDS versions or apply a date range to print specific MSDS.
The program will open batch window downloaded MSDS. Print MSDS from the acrobat reader program.

The following tasks are similar to the steps above and therefore they will not necessarily be repeated. Take note of the menu options from the Save and Email menu.

**Save Menu**
Follow the same steps above to save MSDS or other reports as a List (html, pdf)

**Send to (Email Menu)**
Follow the same steps above to email data (you may choose list, MSDS type) and press the submit button to fill in the fields and send mail. Recipient(s) will receive data as attached files.
2.6 Advance Search

Activity - Apply Advanced Search by Material

<table>
<thead>
<tr>
<th>Advanced Mode</th>
<th>Task Description: Advanced Mode Search for Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Search</td>
<td>Search for a material and apply Advanced Search Mode to include a hazard category</td>
</tr>
<tr>
<td><img src="image" alt="Advanced Search Interface" /></td>
<td></td>
</tr>
</tbody>
</table>

1. Click on the "Advanced" button within the search panel header layer
2. Select Hazard ALL drop down link to expand hazard category menu
3. Click to select hazard category to apply to the search criteria
4. Click on the button
5. Select chemical name to display (M)SDS.

→ Activity: Search for material by applying the "carcinogen" category.
→ Hazard/Dangerous categories may not be applicable to all chemicals. A hazard substance search may not display any records for a non-hazardous category.

Notes

Activity - Apply Advanced Search by for both Material and Vendor Names

<table>
<thead>
<tr>
<th>Search Option</th>
<th>Task Description: Advanced Mode Search by Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Mode Search by Material and Vendor for a Specific (M)SDS</td>
<td></td>
</tr>
<tr>
<td>Search by Material, Vendor &amp; Hazard Category</td>
<td>Searching by Material, Vendor and Hazard Category can include the following options;</td>
</tr>
<tr>
<td><img src="image" alt="Advanced Search Interface" /></td>
<td></td>
</tr>
</tbody>
</table>

1. Click on the Vendor (M)SDS report button
2. Click on the "Advanced" button within the search panel header layer
3. Type the material name e.g. "Acetone" in the Name field; vendor name "Merck" in the Vendor text field and then click Hazard–All link to select hazard category "Hazard-All" to apply to the search criteria
4. Select Full (Chemwatch Global Database) and Search by supplier name, e.g.
5. Click on the button
Activity - Apply Advanced Search by Vendor Search

<table>
<thead>
<tr>
<th>Search Option</th>
<th>Task Description: Advanced Mode Search by Vendor for a Specific (M)SDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Mode - Vendor Name Search</td>
<td></td>
</tr>
</tbody>
</table>

**Search by Vendor & HazardCategory**

Searching by **Vendor Name** can include the following options:

1. **Click on the Vendor (M)SDS report button**
2. **Click on the “Advanced” button** within the search panel header layer
3. **Click Hazard–All link** to select hazard category – Hazard-All/Hazard Specific/Carcinogens to apply to the search criteria for Carcinogenic vendor (M)SDS.
4. **Select Full (Chemwatch Global Database) and Search by supplier name, e.g. type the name “Merck” in the Vendor text field**
5. **Click on the “Go” button**
6. **Select and expand the vendor address/location to choose respective address to display a list of available MSDSs from that location**
7. **Click on the “material name” to display vendor MSDSs**
3.0 (M)SDS Structure and Format

The acronym [MSDS] is used across the user guide and refers to a document authored by manufacturers and organisations across the world. The "Safety Data Sheet" (SDS) is a globally accepted document as the standard international document widely used in Europe and other GHS countries to meet regulatory standards and compliance.

3.1 (M)SDS Structure and Contents

What is an (M)SDS?

An MSDS (Australia), also known as PDS (COSHH data sheet, UK), is a form or document with data regarding the properties of a particular known substance. It is regarded as an important component of product stewardship and workplace safety for the provision of procedures for handling and working with that substance. The MSDS contains information ranging from physical data (boiling point, melting points, flash point, toxicity, etc), health effects, first aid, reactivity, storage, disposal, protective equipment, spill and fire emergency procedures, regulatory classification, e.g., NOHSC, ADG7 Code, GHS (Australian). (M)SDS formats can vary from one source to the other depending on the national legal requirements on compliance and standards.

An MSDS for a substance (pure or mixture) is primary used at workplace environments and focuses on the hazards in working with the material in an occupational setting. It is important to use an MSDS(not more than 5 years) specific to both country, supplier and latest version , as the same product sold under identical brand names by the same company can be different in formulations in different countries.

(M)SDS Structure

The 16 header MSDS contains the following sections as defined in the code. All sections of an MSDS should be completed. Where information relevant to a particular section is not available, the MSDS should state 'Not available'. The table in the glossary describes only the core information required in each section of an (M)SDS as per compliance requirements.

3.2 (M)SDS Format

The MSDS Format and Preparation (Australian Regulations)

The responsibility to prepare an MSDS for a hazardous substance and/or dangerous goods lies with the manufacturer. A supplier is defined as a manufacturer or importer of the material or product and must provide an MSDS upon supply of the material. Duties and obligations for the production, review, revision and supply of MSDSs are prescribed in the National Model Regulations for the Control of Workplace Substances. The National Code of Practice for the Preparation of Material Safety Data Sheets (MSDS Code) provides guidance on the preparation of an MSDS. The Second Edition of the code provides guidance on the preparation of a 16 header MSDS, which is consistent with the information requirements of the globally harmonised format. The (M)SDS content description of the structure can be found in the glossary (Structure of an MSDS) for more information.
(P)SDS) Format (EU/UK)

SDS are no longer part of the CHIP regulations, but still have to be provided to chemical professional users as per reference to Article 31 and Annex II of the REACH Regulation. The chemical SDS has to be supplied upon issue of chemical and if chemical compositions change. Classification information related to COSHH, CLP and REACH SDS can be found in the web address links below.


Example: Gold (M)SDS Acetone Hazard Alert Code is HIGH for Flammability category rating of 3 = ORANGE Colour Code
4.0 Folders, Manifest Stores and Jobs Tree Structure

The Folders Module UI consists of various features; the tree structure, search panel and a window to display folder/store contents. This module is designed for the management of chemical registers by creating folders and/or stores, distributing materials into those folders/stores. Folders are created in order to populate them with materials from the reference database, that is customising your own inventory. The “Expand” link opens the tree structure to view folders/store. Folder/Stores may be created as Areas, Sections, and Locations/stores within an organisation's premises or regional sites depending on the size and operational infrastructure where hazardous substances and dangerous goods are stored on those site(s). Notice the tree structure view below, clicking on the Expand link will expand the entire tree structure into tiers/divisions of existing folders/stores.

The systems default directories (including the “UNFILED folder) are denied edition or manipulation. Any materials or folders/stores removed within the program will be deposited into the “DELETED” directory.

**Folder Security** can be applied to the folder tree structure to protect contents and secure modification and/or deletion of individual folders/stores and its contents. User access permissions allowable are; Read-Write, Read Only and Deny access. The deny access permission hides the folder/store applied and hence, a user with the latter permission allow hidden folders/store to be invisible to that user. Folder Security and UI attributes are set up by the program administrator within your organisation. This module allows the distribution of entire personalised folders with their contents and also the transfer of single or multiple materials by using the drag and drop functionality. Folders (and entire contents) can also be copied and moved by using the mouse right-click functionality into other folders/stores on tier levels. Single materials may be hidden from general view by the administrator of the program. The screen below illustrates the mouse right click options to copy; move and remove (delete) functionalities.
The mouse **right click model** has been implemented to improve speed and performance and usability of the Tree Structure features. The **mouse right click functionality** on the tree displays the **edit menu** options available at a single click. Note that the administrator (high end user) may choose to **hide any folder/store** from general view and hence hidden folders/stores will be invisible to other users. The applications folder tree structure also utilises the drag and drop functionality to easily manage folders/stores. The screen below shows the mouse right click edit menu within the folder tree structure. The following sections discuss how to “create and edit” folders/stores as well the distribution of single and multiple materials.

The **Mouse Right Click** functionality within the tree structure is displayed below.
### 4.1 The Folders Tree Structure

#### 4.1.1 Creating Folders

<table>
<thead>
<tr>
<th><strong>A:</strong> Sites (start here)</th>
<th><strong>B:</strong> Divisions</th>
<th><strong>C:</strong> Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional sites, organizational Areas (premises) or tiers of the default system’s directories (FOLDERS, MANIFEST).</td>
<td>Departments, Buildings, Areas, Sections.</td>
<td>Locations, sub-locations, stores. Below shows tier levels within the Folders directory</td>
</tr>
</tbody>
</table>

**Task Description:**
Creating a Folder - Area  
Creating a division - department  
Creating a location - store

1. **Right click** on Folder directory  
2. **Select** `create` from the menu  
3. **Type** the name of the folder, e.g. ‘Water Treatment Plant’  
4. **Click the SAVE button.** Folder name is created in level 1.

5. **Right click** on area name ‘Water Treatment Plant’  
6. **Select** `create`  
7. **Type** the name of the department, for example, Chemical Storage in the add panel  
8. **Click the SAVE button.** Sub-folder name is created at level 2.

9. **Right click** on ‘Chemical Storage’.  
10. **Select** `create`  
11. **Type the location name/store name, e.g. Cabinet**  
12. **Click the SAVE button.** Folder location name is created at level 3.
### 4.1.2 Editing Folders

<table>
<thead>
<tr>
<th>Task Description: Rename a Folder</th>
<th>Task Description: Remove (Delete a Folder)</th>
<th>Task Description: Edit Folder: Copy, Move, Paste</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task Description:</strong> Rename a Folder</td>
<td><strong>Task Description:</strong> Remove (Delete a Folder)</td>
<td><strong>Task Description:</strong> Edit Folder: Copy, Move, Paste</td>
</tr>
<tr>
<td>1. Right click on Folder to rename</td>
<td>1. Right click on Folder to delete</td>
<td>1. Right click on Folder to copy or move this folder</td>
</tr>
<tr>
<td>2. Select 'Rename' from the menu</td>
<td>2. Select 'Remove' from the menu</td>
<td>2. Select 'Copy' from the menu</td>
</tr>
<tr>
<td>3. Type new folder name</td>
<td>3. Click 'Move' to move folder</td>
<td>3. Click 'Move' to move folder</td>
</tr>
<tr>
<td>4. Click on any GUI space or press Enter on keyboard</td>
<td></td>
<td>4. Right click on destination folder</td>
</tr>
<tr>
<td><img src="folder_operations.png" alt="Folder Operations" /></td>
<td><img src="folder_operations.png" alt="Folder Operations" /></td>
<td><img src="folder_operations.png" alt="Folder Operations" /></td>
</tr>
</tbody>
</table>

### 4.1.3 Search for Folders

#### Activity – Search for Folders in Folders Module

<table>
<thead>
<tr>
<th>Search Option</th>
<th>Task Description: Searching for Folder(s) in Folders Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Folder(s) Search</td>
<td>Search by folder name identifies folder's location within the tree structure</td>
</tr>
<tr>
<td>Folder Name Search Steps</td>
<td>Type the name of the folder/store in the folder search text field</td>
</tr>
<tr>
<td>2. Click the button Search for folder name, e.g. Cabinet as depicted below</td>
<td></td>
</tr>
</tbody>
</table>

> The folder **Cabinet** is highlighted within the tree. If a folder does not exist, a message displays **"No Results"**.

3. Click on folder name to view contents.
### 4.1.4 Drag and Drop Folders

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Task Description</th>
<th>Task Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>:Click and hold a folder</td>
<td>:Drag a folder (move)</td>
<td>:Drop a folder (move onto destination)</td>
</tr>
</tbody>
</table>

1. Automate left mouse click on a source folder/store and hold.

2. Drag the folder/store as portrayed below into a destination folder/store.

3. Drop the entire folder, store onto a destination folder as portrayed below.

*Folder moved successfully*

### 4.2 Introduction to the Manifest

#### 4.2.1 General Manifest Overview

The principal purpose of the manifest is to provide the emergency services authority with information on the quantity, type and location of dangerous goods stored and handled on premises to enable them to respond to an incident. An extensive list of requirements can be found in the applicable national standards and code of practice for storage and handling of dangerous goods with reference to applicable jurisdiction. The Manifest Module has been designed to be quick and easy to use as most functions are viewable in a single view of the UI. The GUI has three main components:

1. **The Search Panel (Search Options)**
   
   An overview of the search panel has been discussed in Section 2.0: Searching the Database

2. **The Tree Structure (Collection, Enterprise, Deleted, Manifest Directories)**
   
   The analogy of the tree structure is discussed in Section 4.0: Folders, Manifest Stores and Jobs Tree Structure

3. **The Manifest Areas/Section/Locations/Stores’ content view**

*Figure: Manifest Module View of User Interface Elements*
**Manifest Store Records and Registers**

The Manifest records or store register or sometimes referred to as inventory is a list of chemicals or products stored in the premises of PCBUs. The records are essential in planning, advice to emergency services, insurance, meeting compliance requirements to OHS/WHS regulations and also the determination of dangerous goods (licence requirements) and identification of major hazard facilities. Generally, the record should include the following information:

- Product Trade name
- Ingredients (Active Constituents)
- Poison Schedule
- Dangerous Goods where applicable - Class, Packing Group, UN number
- Bath number
- Date of Manufacturer or expiry date
- Quantity stored or maximum quantities in store

*WARNING:* If the maximum quantities of Dangerous Goods exceed the exemption limits, the store will require a Dangerous Goods licence.

**4.2.2 Manifest Tree Structure**

The Manifest Module requires that users create respective Areas/Sections/Locations based on the organisation's site map. Therefore, recommend that stores must be created in the Manifest Directory as a parent node. The Folders and Manifest directories are system's parent nodes (they cannot be edited in any way). Folders created in the Folders Parent Directory will not be accessible in the Manifest Module.
### 4.2.2.1 Creating Areas, Sections and Locations

<table>
<thead>
<tr>
<th>A: Sites (start here)</th>
<th>B: Divisions</th>
<th>C: Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional sites, organizational <strong>Areas</strong> (premises) or tiers of the default system’s directories (FOLDERS, MANIFEST).</td>
<td>Departments, Buildings, Areas, <strong>Sections</strong>.</td>
<td><strong>Locations</strong>, sub-locations, stores. Below shows tier levels within the Folders directory.</td>
</tr>
</tbody>
</table>

#### Task Description: Creating a Folder/Area

1. Right click on **MANIFEST** directory
2. Select ‘create’ from the menu
3. Type the name of the folder, e.g. ‘Water Treatment Plant’
4. Click the **SAVE** button. Folder name is created in level 1.

#### Task Description: Creating a Division/Department

5. Right click on **area** name ‘Water Treatment Plant’
6. Select ‘create’
7. Type the name of the department, for example, Chemical Storage in the add panel
8. Click the **SAVE** button. Sub-folder name is created at level 2.

#### Task Description: Creating a location/store

9. Right click on ‘Chemical Storage’.
10. Select ‘create’
11. Type the location name/store name, e.g. Cabinet
12. Click the **SAVE** button. Folder location name is created at level 3.
### 4.2.2.2 Editing Stores

<table>
<thead>
<tr>
<th>Task Description: Rename a Folder (Area/Section/Location)</th>
<th>Task Description: Remove Area/Section/Location (Delete)</th>
<th>Task Description: Edit Folder/Store: Copy, Move, Paste</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Right click</strong> on Area/Section/Location to rename</td>
<td><strong>1. Right click</strong> on folder/store to delete</td>
<td><strong>1. Right click</strong> on folder/store to copy or move this folder</td>
</tr>
<tr>
<td><strong>2. Select ‘Rename’ from the menu</strong></td>
<td><strong>2. Select ‘Remove’ from the menu</strong></td>
<td><strong>2. Select ‘Copy’ from the menu</strong></td>
</tr>
<tr>
<td><strong>3. Type new folder/store name</strong></td>
<td><strong>3. Click ‘Move’ to move folder/store</strong></td>
<td><strong>3. Click ‘Move’ to move folder/store</strong></td>
</tr>
<tr>
<td><strong>4. Click on any GUI space or press Enter on keyboard</strong></td>
<td></td>
<td><strong>4. Right click on destination folder/store</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>5. Select ‘Paste’ from the menu</strong></td>
</tr>
</tbody>
</table>

#### Task Flowchart:

- **Create**
- **Copy**
- **Move**
- **Paste**
- **Rename**
- **Remove**
- **Hide**

### 4.2.2.3 Search for Areas, Sections and Locations

#### Activity – Search for Folders in Folders Module

<table>
<thead>
<tr>
<th>Search Option</th>
<th>Task Description: Searching for Areas/Sections/Locations in Manifest Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Folder name search</td>
<td>Search by Area/Section/Location or folder/store name identifies store’s location within the tree structure</td>
</tr>
<tr>
<td><strong>1.</strong> Type the name of the folder/store in the folder/store search text field</td>
<td></td>
</tr>
<tr>
<td><strong>2.</strong> Click the <strong>GO</strong> button Search for folder/store name, e.g. Cabinet as depicted below</td>
<td></td>
</tr>
</tbody>
</table>

The folder **Cabinet** is highlighted within the tree. If a folder/store does not exist, a
4.2.3 Classification Data

In Australia, there are currently two instruments legislated;

- Approved Criteria for the Classification of Hazardous Substances
- WHS/GHS Classification of hazardous chemicals

The applications Manifest Module uses both the above classification instruments to provide the respective risk codes and the hazard codes for materials that have a corresponding Chemwatch Gold MSDS. For materials that do not contain a Gold MSDS will not show the classification data but that information must be reference to the applicable material's Vendor MSDS. However, in this case, a user assigned with the applicable permission and attributes can assign the classification as "User Defined" data in the interim period until a Gold MSDS is authored for that particular material. The following Manifest Content View (Material List) solely depends on availability of materials registered (added) into a Manifest Store. The Manifest view of store’s content list the materials with classification information based on the Risk Coding System or the Hazard Coding System. The Manifest Tool provides Classification Coding switch for R-Code and H-Code.

---

**R-Code Classification – Risk Coding for Hazard Classification**

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Material Name</th>
<th>Classified By</th>
<th>Volume/Weight</th>
<th>DG1</th>
<th>DG2</th>
<th>DG3</th>
<th>DG4</th>
<th>PKG</th>
<th>APPROV.</th>
<th>SDS etc</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>acrylonitrile</td>
<td>ChemWatch</td>
<td>1500.0 kg</td>
<td>2.1</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td>nitrogen dioxide</td>
<td>ChemWatch</td>
<td>15000.0 L</td>
<td>2.3</td>
<td>5.1</td>
<td>8</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

**Vendor (M)SDS for Material**

<table>
<thead>
<tr>
<th>Material Name</th>
<th>Vendor Name</th>
<th>Classified By</th>
<th>Volume/Weight</th>
<th>DG1</th>
<th>DG2</th>
<th>DG3</th>
<th>DG4</th>
<th>PKG</th>
<th>APPROV.</th>
<th>SDS etc</th>
</tr>
</thead>
<tbody>
<tr>
<td>acrylonitrile</td>
<td>ChemWatch</td>
<td>ChemWatch</td>
<td>1500.0 kg</td>
<td>2.1</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>nitrogen dioxide</td>
<td>ChemWatch</td>
<td>15000.0 L</td>
<td>2.3</td>
<td>5.1</td>
<td>8</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**H-Code Classification – Hazard Coding for Hazard Communication**

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Material Name</th>
<th>Classified By</th>
<th>Volume/Weight</th>
<th>DG1</th>
<th>DG2</th>
<th>DG3</th>
<th>DG4</th>
<th>PKG</th>
<th>APPROV.</th>
<th>SDS etc</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>acrylonitrile</td>
<td>ChemWatch</td>
<td>1500.0 kg</td>
<td>2.1</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td>nitrogen dioxide</td>
<td>ChemWatch</td>
<td>15000.0 L</td>
<td>2.3</td>
<td>5.1</td>
<td>8</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

*Displaying items 1 - 2 of 2*
Editing the Manifest involves entering average/maximum quantity values for specific materials, extracting Risk/Hazard Codes and DG classification for vendors MSDSs that do not have corresponding Gold MSDSs, incorporating Notes and setting up Approvals for individual substances. The tasks below illustrate the steps for editing and extracting data.

4.2.3.1 Approved Criteria Classification of Hazardous Substances

Classification of Workplace Hazardous Substances

Since the introduction of the NOHSC model Regulations for the control of workplace hazardous substances (1994) and the Dangerous Goods Standard (2001), and their adoption by jurisdictions, hazardous chemicals have been classified by the Approved Criteria for Classifying Hazardous Substances and the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code). With the adoption of the National model Work Health and Safety (WHS) Regulations in 2012, a new system of chemical classification and hazard communication on labels and Safety Data Sheets (SDS), based on the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) will come into effect. There will be a 5 year transitional period for moving to the new GHS-based system, which will allow for the two systems to be used concurrently by industry. Workplace chemicals will not need to be re-classified or re-labelled immediately. During the 5 year transition period, manufacturers may use either the GHS for classification, labelling and SDS, or the previous hazardous substances and dangerous goods classification systems. After 31 December 2016, at the end of the 5 year period, all workplace chemicals must be classified according to the GHS and labels and SDS must be updated.

What are hazardous substances?

Hazardous substances are those that, following worker exposure, can have an adverse effect on health. Examples of hazardous substances include poisons, substances that cause burns or skin and eye irritation, and substances that may cause cancer. Many hazardous substances are also classified as dangerous goods. A substance is deemed to be a hazardous substance if it meets the classification criteria specified in the Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004) (Approved Criteria).

4.2.3.1.1 Identification of Hazards and Risks

Generally, once a register of materials has been incorporated into the Manifest Module, the program automatically calculates the risks codes and risk phrases for that particular hazardous substances. Accordance to the criteria for classifying hazardous substances, there are 68 risk statements and corresponding safety phrases. The program utilises these codes for the classification of chemicals added into the manifest. The "Material Name" column displays the name of the chemical and identifies the respective risk code (R Code) assigned to the chemical if it is considered to be a hazardous substance as shown in the screenshot below.
The hazardous substances risk codes generated for each material added into the manifest location(s) depends on the availability of a Gold MSDS authored by Chemwatch as well as the classification of Dangerous Goods. The Hazard Ratings employ the Hazard Alert Code hazard bars rated in five main categories [FLAMMABILITY, TOXICITY, BODY CONTACT, REACTIVITY and CHRONIC]. The highest rating is the conclusive nature of the hazard. This information is shown in the colour coded hazard column icons for each classified material. The table below summarises the logic behind the colour coding of each icon with respect to the nature of the hazard based on the any of the five main categories.

### Table: Hazard Ratings and Colour Coding for Classified Chemicals

<table>
<thead>
<tr>
<th>No Code</th>
<th>No Hazard Rating calculated (Gold SDS NOT available) - GREY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mini/Nil</td>
<td>Non Hazardous Substance (No Risk Code) - BLUE</td>
</tr>
<tr>
<td>Moderate</td>
<td>Moderate Hazardous Substance (Risk Code) - YELLOW</td>
</tr>
<tr>
<td>High</td>
<td>High Hazardous Substance (Risk Code) - ORANGE</td>
</tr>
<tr>
<td>Extreme</td>
<td>Extreme Hazardous Substance (Risk Code) - RED</td>
</tr>
</tbody>
</table>

**Showing the Hazard Icon Information**

Hover your mouse over the hazard icon and view relevant classification data and hazard rating categories. The material "Acetone" below is shown to have a high level rating.

**Display of Hazard Icon Data**

The hazard icon data include the DG classification, Risk Codes and risk Phrases, Chemwatch Hazard Rating per category, GHS graphics and hazard graphics to provide a summary about the chemical at a glance.
In this example, “Acetone” is concluded to be a HIGHLY hazardous substance due to its “Flammability” category, which is rated 3, High, Orange colour coding.

4.2.3.2 GHS Classification of Hazardous Chemicals

What is GHS?

The **Globally Harmonised System** of Classification and Labelling of Chemicals (GHS) is an internationally agreed system created by the United Nations to replace the various classification and labelling standards used in different countries. The standardisation of hazard classification of chemicals in the identification criteria on the global level consistently aims at improving knowledge of the chronic health hazards and encourage the elimination of hazardous chemicals, especially carcinogens, mutagens, reproductive toxins or their replacement with less hazardous substances.

What is Hazard Communication?

Hazard communication is a term used for the description of critical information about chemical hazards and relevant precautions for safe storage, handling and disposal. Hazards are communicated through signal words, hazard statements and precautionary statements on labels and SDS. The harmonisation criteria incorporates the classification of the following types of hazards in the table below.

<table>
<thead>
<tr>
<th>RISK CODE LIST HEADER</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R45</td>
<td>May cause CANCER</td>
</tr>
<tr>
<td>R46</td>
<td>May cause heritable genetic damage</td>
</tr>
<tr>
<td>R12</td>
<td>Extremely flammable</td>
</tr>
<tr>
<td>R11</td>
<td>Highly flammable</td>
</tr>
<tr>
<td>R36</td>
<td>Irritating to eyes</td>
</tr>
<tr>
<td>R65</td>
<td>Repeated exposure may cause skin dryness and cracking</td>
</tr>
<tr>
<td>R67</td>
<td>Vapours may cause drowsiness and dizziness</td>
</tr>
<tr>
<td>Hazard Type</td>
<td>Specific Hazard</td>
</tr>
<tr>
<td>------------</td>
<td>----------------</td>
</tr>
<tr>
<td>HEALTH</td>
<td>Acute Toxicity, Skin Corrosion, Skin Irritation, Serious Eye Damage, Eye Irritation, Respiratory Sensitiser, skin Sensitiser, Germ Cell Mutagenicity, Carcinogenicity, Reproductive Toxicity, specific Target Organ Toxicity, Aspiration Hazard.</td>
</tr>
<tr>
<td>ENVIRONMENT</td>
<td>Acute Aquatic Toxicity, Chronic Aquatic Toxicity.</td>
</tr>
</tbody>
</table>

### 4.2.3.2.1 Identification of Hazards

The identification of hazards will be based on chemicals and subsequent classification based on the GHS instrument as per WHS regulations. Hazards include things and scenarios that may potentially harm people in the workplace, especially when working with chemicals and their interaction with physical work environment, equipment, work design, tasks and management. Some common examples of such hazards are:

- **Hazardous chemicals** - chemicals such as acids, hydrocarbons, heavy metals and dusts can cause respiratory illnesses, cancers
- **Machinery and equipment**, extreme temperatures, psychosocial hazards

It is a WHS requirement to read an (M)SDS and label for a material stored at the workplace or used in a work related activity to take the necessary precautions where applicable. Section 2 of an (M)SDS specifies the hazards...
Identify Dangerous Goods and Placarding

What are Dangerous Goods?

Dangerous goods are substances, mixtures or articles that, because of their physical, chemical (physicochemical) or acute toxicity properties, present an immediate hazard to people, property or the environment. Types of substances classified as dangerous goods include explosives, flammable liquids and gases, corrosives, chemically reactive or acutely (highly) toxic substances. The criteria used to determine whether substances are classified as dangerous goods are contained in the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code). The ADG Code contains a list of substances classified as dangerous goods. State and territory workplace dangerous goods storage and handling laws also capture combustible liquids. The criteria for classifying combustible liquids are contained in Australian Standard AS1940 (The Storage and Handling of Flammable and Combustible Liquids). Many dangerous goods are also classed as hazardous substances.

Identification of Dangerous Goods classification associated with a chemical using the GoldFFX program

Generally, once a register of materials has been incorporated into the Manifest Module, the program automatically calculates the Dangerous Goods Class, Sub-Risk(s) and Packing Group for that particular article. According to the Dangerous Goods Code (for example, in Australia – the ADG Code is referenced). The regulation classifies dangerous goods into nine classes, which are assigned a specific dangerous goods diamond for transportation by land, air and/or rail. The program utilises these codes for the classification of chemicals added into the manifest. The “DGC, Sub-Risk 1, Sub Risk 2 and Packing Group” columns display the respective data for the chemical as part of compliance. For more information on the various DG Classes and respective Hazchem diamonds, refer to Materials Module Table: Search Options: Task description on how to use the various search options.

Identification of Dangerous Goods Locations – Placarding

Placards are labels used to identify dangerous goods stored on site which exceed the required compliance threshold for a group of DG classes. They provide visual warning of the hazard associated with the dangerous
goods at the premises. If dangerous goods are stored in bulk or quantity for grouped Dangerous Goods Classes that exceed the quantity specified in the Glossary Table headed “Placarding Quantity” [based on Schedule 1, 2 of the Regulations].

The task description below provides the steps on how to input quantity (average/maximum) values for chemicals stored in specific locations. These chemicals will trigger dangerous goods diamonds and Hazchem Codes within the application if the quantities do not meet the Placarding Quantity Threshold. Dangerous Goods definitions and applicable Hazchem signs are collated in the Glossary Table: Dangerous Goods Classes

Worked Example: Placarding for Dangerous Goods and Data, e.g. Acetone 300L

Reference DG Data

Click on the Hazchem Sign and select DG Class Setting category to load information, e.g. Engineering Controls
5.0 Adding and Distributing Materials

The Show Own list (your organisational chemicals register) provides a register of your own organization’s register of products provided to Chemwatch as an inventory or created by organisation users. Materials can be distributed across the program tree structure by drag and drop functionality; Copy, Move or Remove single or many items from a chemical list or document list and when viewing the MSDS. To view an MSDS, click on a chemical name to display an exact match or further select from a document list if there are more than one suppliers linked to a chemical name. The instructions below illustrate the steps on how to "Distribute Materials" from own list.

5.1 Adding Materials - Stocking your stores

To add materials involves a number of options. You can add materials by searching the database and if you find the material or MSDS, you can drag and drop it into a folder or store. The other option is to draw the material from your own register. The illustration below provides steps on how to add or copy a material into a folder/store from your own register [customised organisational inventory] by DRAG and DROP functionality OR Right Mouse Click OPTION (Copy).

Activity - Adding or Copying Materials into store

<table>
<thead>
<tr>
<th>Materials Register</th>
<th>Task Description: Distributing Materials from Own register</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drag and drop Materials – Copy a single or multiple material(s) from ‘Show Own’ list</td>
<td></td>
</tr>
</tbody>
</table>

**Show Own List**

1. Press on ‘Show Own’ button within the search panel

Resultant Screen: Materials list displays

**Option 1: Drag and drop functionality**

→ Use left mouse click: click and hold material name, then drag and drop into a folder/store.
→ to copy many items, drag multiple materials, select checkboxes alongside the materials to choose before dragging and dropping them into a folder/store
→ Follow the notification message(s) where applicable and finally close confirmation message.

**Option 2: Follow the steps below to “Copy single or multiple materials” as illustrated**

2. Right click the mouse on the applicable chemical name and select the copy button
Select checkbox alongside material name (single or many). The example above illustrates copying three materials from the material list.

Drag and drop selected materials into a folder/store within the tree structure.

Note: Option Message
If materials are selected from a Material List, a message displays to confirm copying all vendor MSDS. Choose “YES” to continue to further select and continue with the process as stipulated in steps 2 to 4 above. Choose “NO” adds all selected materials into folder/store. However, if materials are selected from the document list, the program adds all marked documents into destination folder/store.

After selecting “YES” option, the program displays a list of documents (vendor MSDS) to choose appropriate supplier MSDS. Follow the steps on how to drag and drop into folder/store.

Click on OK button on the copy complete confirmation message.

Folder will be highlighted in blue once the chemicals have been successfully copied.
5.2 Distributing Materials

Materials can be distributed across the folders and stores by copying or moving single or many items from a chemical list or document list and when viewing the MSDS. The instructions depict the steps on how to distribute and track materials from a folder/store register (chemical list).

5.2.1 Copying Materials

**Activity - Adding or Copying Materials into store**

<table>
<thead>
<tr>
<th>Folders</th>
<th>Task Description: Distributing Materials – Copy item(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Copying a single or multiple materials from ‘Folder’ Chemical List</td>
</tr>
</tbody>
</table>

**Folder View**

1. Click on the source `Folder Name, e.g. cabinet` within the tree to display folder view of its contents

   - Option 1: Drag and drop functionality
   - Option 2: Copy single or multiple material into a folder

2. Select the checkbox alongside a chemical name e.g. acetone to copy a single material name or select many checkboxes for the materials to copy multiple materials

3. Right click mouse alongside a chemical name and select the `copy` button

4. Right click mouse on destination folder name to open edit menu

5. Select the “Paste” option

**Note: Option Message**

If materials are selected from a Material List, a message displays to confirm copying all vendor
MSDS.
Choose “YES” to continue to further select and continue with the process
Choose “NO” adds all selected materials into folder/store. However, if materials are selected from the document list, the program adds all marked documents into destination folder/store.
6 Click on OK button on the copy complete confirmation message.

5.2.2 Moving Materials

Activity – Move Materials from a Store

<table>
<thead>
<tr>
<th>Folders Module</th>
<th>Task Description: Distributing Materials – Move item(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moving a single or multiple materials from ‘Folder’ list</td>
<td></td>
</tr>
</tbody>
</table>

Folder View

1. Click on the source ‘Folder Name, e.g. cabinet’
2. Select the checkbox alongside a chemical name or select many checkboxes to copy multiple chemicals
3. Right click the mouse alongside a chemical name, and select the move button

4. Right click the mouse on destination folder and press the ‘Paste’ option from edit menu
Select the ‘Paste’ option from edit menu

Note: Option Message
Selecting chemicals from the material name list to drag and drop may display a dialogue message to consider multiple vendors that may be available. Choose appropriately.

Choose “YES” to continue to further select and continue with the process. Choose “NO” adds all selected materials into folder/store.

However, if materials are selected from the document list, the program adds all marked documents into destination folder/store.

Click on OK button on the move complete confirmation message.

5.2.3 Deleting Materials

Activity – Remove or Delete a Material (single or many items)

<table>
<thead>
<tr>
<th>Folders</th>
<th>Task Description: Remove or Delete Material(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remove</td>
<td>or delete single or multiple material(s)</td>
</tr>
</tbody>
</table>

Folder View

1. Click on the source Folder Name within the tree to display folder contents
2. Select the checkbox alongside a chemical name to move single material name or select many checkboxes for the materials to remove multiple chemicals
3. Right click the mouse alongside a chemical name and select the remove option
4. Close confirmation message
5.3 Tracking Materials

Activity - Adding or Copying Materials into store

<table>
<thead>
<tr>
<th>Materials Register</th>
<th>Task Description: Tracking a material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track a single material from Show Own Material List</td>
<td></td>
</tr>
</tbody>
</table>

Show Own List

1. Press on 'Show Own' button

   - Materials list displays

2. Click on the Track icon alongside a chemical name as shown below

3. Location(s) identified in folders directory.

Tracking a material name or document from any list view is allowable such as "tracking from a Material Name List (Register), Document List (MSDS List), Manifest Material List (Manifest Register),"
6.0 Editing Quantities, Manifest Content and the Classification Tool

Editing the Manifest depends on attributed permissions to the Areas/Sections/Location allocated as administrative rights. Editing in the Manifest Module involves:

- Entering values for average/maximum quantities for specific materials (chemical names), individual average/maximum quantity values for vendor (M)SDS product, set the number of containers (as a bulk) for the material.
- Set approval requests for materials
- Assigning classification data for vendor (M)SDS product [if a Gold (M)SDS is NOT available or is in the process of being authored by Chemwatch]

6.1 Entering the values of Quantities for the Materials in stores

Activity – Editing Material Quantities in the Manifest Average Mode

<table>
<thead>
<tr>
<th>Manifest Quantities</th>
<th>Task Description: Entering Values for Material Quantities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MODE: Average</strong></td>
<td></td>
</tr>
<tr>
<td>Material Quantity</td>
<td>Open Manifest Module and</td>
</tr>
<tr>
<td></td>
<td>1. Click on store to view a list of material register</td>
</tr>
<tr>
<td></td>
<td>2. Select the “Edit” link alongside material that has a corresponding Gold MSDS</td>
</tr>
<tr>
<td></td>
<td>3. Enter “Average/Maximum quantity for the material (chemical)”</td>
</tr>
<tr>
<td></td>
<td>4. Save Cancel</td>
</tr>
</tbody>
</table>
6.2 Entering the values of Quantities for the Vendor (M)SDS products in stores

**Activity – Editing Material Quantities in the Manifest Maximum Mode**

<table>
<thead>
<tr>
<th>Product Quantity</th>
<th>Task Description: Entering Values for Material Quantities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MODE: ADVANCED MODE</td>
</tr>
</tbody>
</table>

1. Press the "Advanced button" to change the mode of the Manifest grid.
2. Click the add icon next to the material name to open an expanded view of the Manifest grid.
3. Select the “Edit” link alongside the Vendor MSDS product – edit average/maximum values as shown in step 3 above OR
4. Click on the drum icon next to the Vendor SDS product name.
5. Click on “Add container button”
6. Assign container(s), container type, state of the chemical, volume, quantity, expiry date, choose the rules for bar coding and assign part number/stock number and save.
Notice bar code generate automatically if “Use Chemwatch Rules…. are selected”. Check if the volume/quantity amount reflects on the bar code.
### 6.3 Assigning Approvals to Materials in stores

Chemwatch offers a tool for organisations or businesses to track any incoming products that may be required and reported on in the Manifest. A designated person may approve a request for a material for a variety of reasons, such:

- For use by Contractors or employees
- For use on trials or temporary situations
- For Pending or Completed Risk Assessments

The following icons depict the status of the approvals for materials in the Manifest store when using the Manifest Module View of a Materials Register.

#### Activity – Input Material Approval Request

<table>
<thead>
<tr>
<th>Material Approval</th>
<th>Task Description: Input Material Approval Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Approval Request</td>
<td>Open Manifest Module and</td>
</tr>
<tr>
<td>Notes</td>
<td>☀ Click on store to view a list of material register</td>
</tr>
<tr>
<td>Approval Status</td>
<td>☒ Select the marked icon alongside material name classified by CW</td>
</tr>
<tr>
<td>No request</td>
<td>☂ Enter &quot; details into the Approval Status Panel and Save</td>
</tr>
<tr>
<td>Request pending</td>
<td>☀ Approved</td>
</tr>
<tr>
<td>approval</td>
<td></td>
</tr>
<tr>
<td>Approved</td>
<td></td>
</tr>
</tbody>
</table>
7.0 Generate Manifest Reports

7.1 Manifest Reports - Hazards Filter

Sort a Manifest Register by using the Hazards Filter Option

Safety and compliance require that persons using chemicals must obtain a hazardous substance register, identify all those materials that may cause cancer (carcinogens), hazardous substances to human health, environmental hazardous substance, embryotoxins, reprotoxins, physical hazardous substances, dangerous goods in store, etc. The program allows to sort by any of the above options through the Hazards Filter Optional Menu.

Steps:
1. Select a store
2. Choose the Hazards Filter button
3. Select report type to sort from the hazards menu panel, e.g. carcinogens
4. Report displays a list where applicable in accordance to the type of sorting applied
5. Print, save or email the list

7.1 Manifest Reports – Incompatibility

WHS Regulation 2011 requires that workplaces where chemicals are stored, used or handled must have systems and procedures in place to prevent incompatible material from interacting. Note that each chemical has a relative reactivity rating and stability as per chemical properties and therefore, it is imperative to consider storage compatibility for hazardous chemicals to avoid accidents, fire, chemical spills, etc. The GoldFFX application utilises the Incompatibility Report from the Hazards Filter to be able to generate a report based on the Segregation Tool [refer to the compatibility chart in the glossary], which is only a guide and not meant to replace an (M)SDS or a risk assessment. Further guidance on storage and handling of mixed classes of dangerous goods in packages and intermediate bulk containers can be found in the Australian Standard AS3833. The following steps illustrate “how to generate an Incompatibility report for chemicals in store within the manifest”.

Steps:

1. Select a store
2. Choose the Hazards Filter button
3. Select report type to sort from the hazards menu panel, e.g. **Incompatibility Report**
4. Report displays a compatibility list in accordance to the segregation status of chemicals in store
5. Print, save or email the report
8.0 The Report Generator Tool to extract Data

8.1 Uses of the Report Generator Tool

Use the Report Generator Tool to extract specific information using data points from the respective data points directories.

Steps:
1. Select a store
2. Choose the Material by clicking on the checkboxes alongside a material name
3. Click on the Report Generator Button
4. Choose the language, country and the report type and format
5. For the Type of report - create your own data points
6. Optional - download images
7. Download the file
9.0 D-Gen Labelling Tool

The Label Generator Module allows users to generate labels from our generic templates using the label generator tool. The materials can be located in a folder/store or simply conduct a search for a particular material and generate a label of choice from the available template gallery with varying formats/sizes. The label templates range from R-Coding system, GHS system, CLP, etc. In this topic we focus on the **R-Coding and CLP system** to generate labels. However, GHS Labels can also be generated using the steps below.

![Label Generator Module](image)

### Activity - Generate a label size/format

<table>
<thead>
<tr>
<th>D-Gen Label</th>
<th>Task Description: Generate a Label Format/Size (Folder Register of Materials)</th>
</tr>
</thead>
</table>
| Generate a Label Template | Different label formats are dependent on the availability of a Gold (Chemwatch authored MSDS). This exercise illustrates generating a label format/size from a **Register of Materials in a Folder**. Other options are; generating a label from a **Search Result** or **Manifest Store Register**.  
1. Select the Label Generator Module (D-Gen Label)  
2. Click on folder/store to view a list of material register  
3. Select material name that has a corresponding Gold MSDS availability from the folder register |
Next step is to add the material name(s) from the Material List window into the Element Name List.

1. Press the "Add Selected" button to add the chemical into the "Element Register".
2. Optional → Move mouse over a material name from the Element Register to select chemical to "Delete".
3. Click on the Gallery button to load generic templates to choose applicable label format and size.
4. Select a material from the Gallery Element Register.
5. Select default tab and choose label to preview and load.
6. Click on the Print icon and select a local or network printer!
10.0 Risk Assessment

10.1 Introduction to the Control Banding Risk Assessment

Background (CCTK and COBRA/COSHH)

The GHS instrument defines the exposure conditions to assist the chemical user to identify the appropriate approach to control the risks associated with the hazardous substances used in a work related activity. A toolkit called ICCT/CCTK was modelled utilising these instruments and designed to identify control solutions that provide health protection for the large majority of workers whereas pregnant women and the adult may require additional protection when exposed to specific hazardous substances. The primary objective of this tool is to provide basic advise on the workplace control of risks to health from airborne contaminants, fire and explosion and the environment including guidance on the use of pesticides. The ILO ICCT Guidelines have been developed in this premise and provides advice on how these chemicals can be safely handled providing the material supplied has been classified and has the classification on the product label or SDS.

The Risk Assessment Process in COBRA and COSHHpliant

The General approach to conducting Risk Assessments using the COBRA/COSHH program to meet the main six step-process. This automated tool provides multilingual COSHH or ILO Control Sheet Profiles associated with each Risk Assessment.

UI Layout of COBRA and COSHHpliant

The COBRA/COSHHpliant program consists of the Materials Search Module, Folders Module, Jobs Module, Live Support and the Main Tool-Bar. The program defaults to the Folders Module and the systems Tree Structure immediately after login.

The Materials Search Module contains the search panel to conduct various types of searches. The search criteria are covered in the sections that follow with specific exemplified tasks. Materials can be distributed by copying or moving using the right mouse click and drag and drop functionalities.
10.1.1 The Jobs Tree Structure and Its Purpose

The Jobs module collates all saved RA Reports into folders with the relevant Job Name (as the parent node) and subsequent Task Name (as a child node) assigned to that particular risk assessment conducted. It is also possible to amend/edit the Job RA audit and save it within the Job’s Module.

JOBS Module depends on assigned Job Name when a risk assessment has been carried out. The Risk Assessment Report is saved into the JOBS module with the Task name linked within the Tree Structure and the relevant Job Name.
10.2 Conducting a Risk Assessment

The Task description below illustrates the steps on how to conduct risk assessments for materials already existing in a folder/store.

Activity – Conduct a Risk Assessment using Control Banding

<table>
<thead>
<tr>
<th>ILO(Health) RA Module</th>
<th>Task Description: Conduct a Risk Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform a Health Risk Assessment for a Single Material</td>
<td></td>
</tr>
</tbody>
</table>

1. Ensure that folders/stores have been created and contain chemicals.
   - Click on a folder that contains materials to be assessed. The chemical list displays in collapsed view.
2. Health Risk Assessment Module displays by default, select Health tab to ensure module is the active one.
3. Expand all levels to check key lock status.
4. Click the key lock to open the file lock for the material to be assessed. Ensure the key lock icon is NOT closed/locked to continue.
5. Press the Task icon to define a task for the chemical, e.g., mixing.
Assign Task to Chemical

Apply RA Parameters

6 Set operating temperature by dragging gauge to desired value or type value in text box-field

7 Press the padlock icon to unlock the scales to apply parameters for volatility/dustiness

8 Roll the barrel using mouse roller to set Volatility/Dustiness either as low, medium or high (for a liquid) or solid, crystal, powder (for a solid)

9 Set parameter for the Scale of Use for either a liquid or a solid or gas

10 Choose Frequency of Use options based on a daily, weekly, monthly (minutes, hours, unknown) duration of exposure to the hazardous substance
Click on Controls button to apply Further Controls to further reduce risks where applicable by selecting appropriate block switch. For Further Controls, right click on a default control (to input your own controls through the "User Defined Controls" option). Choose any from 1 to 4+ controls.

User Defined Controls, e.g. Confined Space, has been assigned to the Risk Band Level as per default calculations to further reduce risks. Notice the user control “Confined Spaces” has been switched on to further reduce risks.
Optional User Defined Controls Checklist

- Select the Checklist button to choose applicable controls from the Checklist Panel to be assigned to the risk assessment to further reduce risks.

- The best Use of Controls panel will display a checklist, click on switch button alongside an applicable control and click to close panel.
Choose the Environmental Discharge Mechanism

12 Apply the Discharge mechanism applicable by choosing an appropriate option (air, water or land).

- Consider environmental exposure levels. For this exercise, the discharge is through water and land has been selected (use the switch to turn switch button on/off. Note that Control Approach documents will also be generated in accordance to the environmental guidance for inference.

13 Click the opened key lock for volatility and main key lock to save the health risk assessment. Select “Yes” to complete assessment and close the notification “Save dialogue box”.

Generate RA Report

14 Generate RA Report and Assign Job Name

Generate RA Reports

Open main key lock and click on the Report icon to complete the Job and print, save or email full Risk Assessment. Note that the report is color coded. The color code depends on the nature of the risk band conclusion for the particulate material. The Risk Assessment Report contains a multilingual panel to translate the report into a desired language.
Assign Job ame

Create a JOB Report

From the Risk Assessment Report displayed above, click on the Jobs button and fill in the required fields as depicted in the example below for "Oil Removal". Press button to save input data for the RA Report as a JOB (see assigned Job Name)!
Load JOB report

To view the JOB RA Report, select the JOBS button to activate module and print, save or email RA Report.

→ Jobs Module loads. Click on the arrow node next to JOBS within the tree to open parent node.
→ Click on the Job Name e.g. Oil Removal/Mixing (as assigned to the RA Report)
→ Click on Report button to load Job RA Report from the Jobs Module.

Generate Control Approach Documents

→ Generate Control Approach Documents

- Expand all levels to check key lock status. Click on Control Documents icon to load the various control approach task sheets.

10.3 Assigning a Job Name to an Assessment Report

To assign a Job name or Job code into your risk assessment report, click on the REPORTS button alongside the chemical name.

Generate Reports

Click on Report icon to complete the Job and print, save or email full Risk Assessment. Note that the report is colour coded. The colour code depends on the nature of the risk band conclusion for the particulate material. The Risk Assessment Report contains a multilingual panel to translate the report into a desired language.

Create a JOB Report

From the Risk Assessment Report displayed above, click on the approval button and fill in the required fields as depicted in the example below for "Oil Removal". Press button to save input data.

The Jobs module collates all saved RA Reports into folders with the relevant Job Name (as the parent node) and subsequent Task Name (as a child node) assigned to that particular risk assessment conducted. It is also possible to amend/edit the Job RA audit and save it within the Job’s Module.
To View the JOB Risk Assessment Report, select the JOBS Tab to activate module

- Click on the Job Name in the Jobs Tree and sub-directory (Task name) to view the audited chemical
- Click on the Report button to load the Job Report (Risk Assessment Report assigned a Job Name)
- Print, save or email report.

10.4 Distribute Risk Assessed Material

The **Show Own** list (your organisational chemicals register) provides a register of your own organization’s register of products provided to Chemwatch as an inventory or created by organisation users. Materials can be distributed across the program tree structure by drag and drop functionality; copy, move or remove single or many items from a chemical list or document list and when viewing the MSDS.

**Activity – Copy a single or many materials from your inventory**

<table>
<thead>
<tr>
<th>Materials</th>
<th>Task Description: Distributing Materials from Own register (customised inventory)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drag and drop Materials – Copy a single or multiple material(s) from ‘Show Own’ list</td>
<td></td>
</tr>
<tr>
<td><strong>Show Own List</strong></td>
<td>1 Press on ‘Show Own’ button within the search panel -&gt; Result: <strong>Materials list displays</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Option 1: Drag and drop functionality</strong></td>
</tr>
<tr>
<td></td>
<td>→ Use left mouse click: click and hold material name, then drag and drop into a folder/store.</td>
</tr>
<tr>
<td></td>
<td>→ Follow the notification message(s) where applicable and finally close confirmation message.</td>
</tr>
<tr>
<td></td>
<td><strong>Option 2: Follow the steps below to “Copy single or multiple materials” as illustrated ✔</strong></td>
</tr>
<tr>
<td></td>
<td>2 Right click the mouse on the applicable chemical name and select the copy button</td>
</tr>
<tr>
<td></td>
<td>3 Select checkbox alongside material name (single or many). The example above illustrates copying</td>
</tr>
</tbody>
</table>
Activity – Copy a single material from a store – No Risk Assessment Completed

<table>
<thead>
<tr>
<th>RA Module</th>
<th>Task Description : Copying Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Copying a single material from a ‘Store’ list (No Risk Assessment Completed)</td>
</tr>
</tbody>
</table>

**Folder/Store View**

1. Click on the source 'Store Name' within the tree
   - Materials list displays, right click the mouse on the applicable chemical name
2. Select the copy button. Checkboxes display alongside each chemical.
3. Expand all levels
4. Click the key lock to open the file lock for the material to be assessed or to save Risk Assessment first to continue with copying materials.
5. To copy a single or multiple chemical names with task not defined (no risk assessment completed), click on the checkbox(es) alongside each chemical name to select single or multiple materials as depicted below. A mark shows.
6. Drag and drop selected materials. Click and hold a single material name and then drag and drop selected materials into a folder/store within the tree structure.

---

If a notification message displays to save risk assessment, do so and continue the exercise

Click on OK button on the copy complete confirmation message.
drop material into destination location/store.

**Note:** If Risk Assessments were not saved, the program will display a notification message to save assessment for the chemical being copied. Complete the Risk Assessment first to copy material into another location.

---

### Activity – Copy a single material from a store – Risk Assessment Completed

<table>
<thead>
<tr>
<th>RA Module</th>
<th>Task Description : Copying Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Copying a single material from a ‘Store’ list  (Risk Assessment Completed)</td>
</tr>
</tbody>
</table>

1. **Folder/Store View**
   - Click on the source **Store Name** within the tree
   - Materials list displays, **right click the mouse** on the applicable chemical name
2. **select the Copy button. Checkboxes** display alongside each chemical.
3. **Expand all levels**
4. **Click the key lock** to open the file lock for the material to be assessed or to save Risk Assessment first to continue with copying materials.
5. **To copy a single or multiple chemical names with task not defined (no risk assessment completed), click on the checkbox(es)** alongside each chemical name to select single or multiple materials as depicted below. A mark **☑** shows.
6. **Drag and drop** selected materials. Click and hold a single material name and then drag and...
drop material into destination location/store.

→Click OK button to close confirmation message!

### Activity – Move a single material from a folder/store

<table>
<thead>
<tr>
<th>RA Module</th>
<th>Task Description: Moving Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moving a single or multiple materials from ‘Folder/Store’</td>
<td></td>
</tr>
</tbody>
</table>

**Folder/Store View**

1. Moving materials with incomplete risk assessments will display a message to save audits before continuing with the exercise. Risk Assessments must be completed and status shows a green block with a tick.

2. Click on the source ‘Store Name’ within the tree.
   - Materials list displays, right click the mouse on the applicable chemical name.

3. Select the Move button. Checkboxes display alongside each chemical.

4. Expand all levels to check key lock status.

5. Ensure the keylock icon is closed/locked to continue.

6. To move a single or multiple chemical names with risk assessment completed click on the checkbox(es) alongside each chemical name to select single or multiple materials as depicted below. A mark shows.

7. There are two options to complete the “move materials process”

**Option 1**
Drag and drop selected material(s). Click and hold a single material name and then drag and drop material into destination location/store OR use the mouse right click onto the destination folder.

Option 2
Use the right mouse click onto the destination folder/store and select the “Paste” option from the edit menu panel.

Click OK button to close confirmation message!

Activity – Remove or delete a single or many materials

<table>
<thead>
<tr>
<th>RA Module</th>
<th>Task Description: Remove or Delete Material(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remove or delete single or multiple material(s)</td>
<td></td>
</tr>
</tbody>
</table>

Folder or Store View

1. Click on the source Folder/Store Name within the tree to display content audit register
2. Select the checkbox alongside a chemical name to move single material name or select many checkboxes for the materials to remove multiple chemicals
3. Right click the mouse alongside a chemical name and select the Remove option
4. Submit Remove and then close confirmation message after transaction is complete.
10.5 Deleting a Job or Risk Assessment

To Delete a Job

1. Select Job/Task Name within the Jobs Tree to view listed RA audits for chemicals
2. Move mouse pointer onto the chemical name and press right click button on your mouse. Click on the “Remove” option to delete job risk assessment audit. Note that this will not delete the RA audit of the chemical where it is located in Folders/Manifest tree. This action will only delete the Job RA audit.
3. Click on the checkbox next to the chemical name in the first column
4. Press the “Submit Remove” option from the panel
Glossary

**Filters and Definitions**

<table>
<thead>
<tr>
<th>Filter Option</th>
<th>Filter Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Show Part Number</strong></td>
<td>Selection of the checkbox displays a Part Number column in a material/chemical list, document list and when viewing an MSDS. The Part Number Column displays the icon within a list. Clicking on this icon loads another window to add part/stock numbers for a particular material which can be later used as part of the search criteria in the Name field. The Part number is located in the drop down arrow menu within the search panel. Part numbers can either be user dependent or vendor dependent. Vendor dependent part numbers are only assigned by the original supplier or manufacturer of the product. These are normally found in Section 1 of an(M) SDS as product codes or product number. However, user part numbers are assigned by the specific user/organisation to particular chemicals.</td>
</tr>
<tr>
<td><strong>Latest Documents</strong></td>
<td>Checkbox selected means all search results will display the latest versions of MSDS. Checkbox not ticked means all search results will display all available latest and archived old versions of MSDS for that particular material search.</td>
</tr>
<tr>
<td><strong>Hide Gold MSDS</strong></td>
<td>Hide Gold MSDS checkbox ticked means all the search results and material list will only show Vendor (M)SDS(Supplier) other than Gold (M)SDS.</td>
</tr>
<tr>
<td><strong>Show Only Gold MSDS</strong></td>
<td>Show Only Gold MSDS not ticked means all the search results and material list will only show MSDSs (Vendor/Supplier) other than Gold MSDSs. A Gold MSDS is a material safety data sheet written by Chemwatch. Most pure substances with a Chemical Abstract Number will have a corresponding Gold MSDS. MSDS authored by Chemwatch for specific client(s) are called WeWrite. These become Vendor (M)SDS owned by that specific supplier/manufacturer.</td>
</tr>
<tr>
<td><strong>Show Preferred Names</strong></td>
<td>Show Preferred Names checkbox selected allows all preferred names (other names assigned to materials/chemical names) to show in a material/chemical list. Preferred name shows with a mouse tip if preferred name exists for that chemical. The screen below shows an example of a created preferred name Chemine (colored) for the chemical acetone in a material list. Show Preferred Names checkbox not selected will only display the exact chemical names without any preferred names across the programs UI.</td>
</tr>
<tr>
<td><strong>Country</strong></td>
<td>Country option not set to any specific country defaults to Any which means that all available MSDSs within the entire Chemwatch database must globally retrieve any MSDS. Country option set to a specific country will default to retrieve any MSDSs available to that particular country filter condition. For example, if the country filter is set to Australia, then the (M)SDSs that will display will give preference to Australian versions first and if not available, then the database will exhaust the filter logical sequence.</td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td>Language option not set to any specific country defaults to Any which means that all available MSDSs within the entire Chemwatch database must globally retrieve any MSDS available from any language. Language option set to a specific country will default to retrieve any MSDSs available to that particular country.</td>
</tr>
</tbody>
</table>
### UI Language

UI Language: **Any**

**UI Language option not set** to any specific country defaults to **Any**, which means that the program interface will be set by default to "English Language". Choose any other language from the drop down menu.

### Type

Type: **Blank**

**Type of Report** to display depends on the available options to select from the menu; Please select one, Label, Mini, MSDS, Mono and other. The default option is the report type "MSDS".

### Source Type

Source Type: **Blank**

Types of sourced MSDSs will display

- **“P”** refers to **primary MSDSs** sourced directly from the manufacturer

- **“S”** refers to **secondary MSDSs** sourced from other sources such as websites

### MSDS Format Filter Condition

<table>
<thead>
<tr>
<th>MSDS Format</th>
<th>Filter Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Format</td>
<td>The default filter, e.g. Australian format (NOHSC/ADG 7 Code)</td>
</tr>
<tr>
<td>GHS Format</td>
<td>Globally Harmonised System</td>
</tr>
<tr>
<td>REACH Format</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemical substances SDS (European Community Regulation on chemicals and their safe use)</td>
</tr>
</tbody>
</table>

### Advanced Tab

**Advanced** refers to the application of specific filter conditions by country and language to a particular folder(s) or manifest location(s). This option depends on the applied role permissions for the UI for general users. The administrator of the Backpack program within your organisation will set the applicable permission roles for users/groups.

**Option 1:** Advanced Tab not available in the UI settings tool
- User will be unable to set folder filter conditions by country/language

**Option 2:** Advanced Tab available in the UI settings tool
- User will be able to set folder filter conditions by country/language
- Select **Override** to override the current set filter set up for a particular folder/store
### Application User Interface Tools, Buttons and Icons

<table>
<thead>
<tr>
<th>Buttons</th>
<th>Name</th>
<th>Hint</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preferred Name</strong></td>
<td>Rename</td>
<td>Rename a material/product</td>
<td>Create a preferred name for a material</td>
</tr>
<tr>
<td>Part Number</td>
<td>Apply a part number/code</td>
<td>Apply a Part Number (stock number or stock code) to a material to also appear in Gold MDS</td>
<td></td>
</tr>
<tr>
<td>Wiki Watch</td>
<td>Links to a Chemwatch Library for specific scientific terms</td>
<td>Search for any scientific term for definitions. The library contains more than 250 000 key terms to search from and growing.</td>
<td></td>
</tr>
<tr>
<td>Bulletin Board</td>
<td>Links to our quarterly bulletin</td>
<td>Click on the link to download the latest bulletin for more information and updates on current affairs in the world of chemical information</td>
<td></td>
</tr>
<tr>
<td>Contact</td>
<td>Links to the Global Chemwatch contacts page</td>
<td>Select region to display local contacts</td>
<td></td>
</tr>
<tr>
<td>Help</td>
<td>Links to a help platform</td>
<td>Search for a specific question in our Frequently Asked Questions window</td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>Select language icon to load menu</td>
<td>Click on language icon to display a list to chose appropriate language for MSDS</td>
<td></td>
</tr>
<tr>
<td>Vendor</td>
<td>Select vendor icon to load menu</td>
<td>Click on vendor icon to display a list to chose appropriate vendor for MSDS</td>
<td></td>
</tr>
<tr>
<td>Latest</td>
<td>Select “latest” icon to load menu</td>
<td>Click on “latest” icon to sort by the latest MSDS issued by vendor</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>Select country icon to load menu</td>
<td>Click on country icon to display a list to chose appropriate country of MSDS</td>
<td></td>
</tr>
<tr>
<td>Filter Customer</td>
<td>Apply custom filter</td>
<td>Apply current filters or change filter conditions</td>
<td></td>
</tr>
<tr>
<td>Part Number</td>
<td>Insert Part Number for a material</td>
<td>create a User Part Number for a material</td>
<td></td>
</tr>
<tr>
<td>Settings</td>
<td>Set up program filters and security</td>
<td>set up program filters and user security</td>
<td></td>
</tr>
<tr>
<td>Checkbox</td>
<td>Select checkbox where applicable</td>
<td>select checkbox where applicable</td>
<td></td>
</tr>
<tr>
<td>Drop Down Arrow</td>
<td>Display options menu</td>
<td>Relevant in UI elements across the application and applying Gold MSDS language/format</td>
<td></td>
</tr>
<tr>
<td>Drop Down Spy Glass</td>
<td>Select spy glass to view drop down menu of search options</td>
<td>Spy glass drop down menu provides search options to refine search index by CAS, CW number, UN, DG Class, PG(Packing Group), R Code, Sub Risk, Part Number (User/Vendor)</td>
<td></td>
</tr>
<tr>
<td>Log out</td>
<td>Log out of the application</td>
<td>Log out and shut down the application</td>
<td></td>
</tr>
<tr>
<td>Back Button</td>
<td>Select Back Button to go back to previous list</td>
<td>Select Back Button to go back to previous list</td>
<td></td>
</tr>
<tr>
<td>Print</td>
<td>Select icon to print</td>
<td>Print any list, MSDS, and other reports</td>
<td></td>
</tr>
<tr>
<td>Icon</td>
<td>Text</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td><img src="Image" alt="Save" /></td>
<td><strong>Save</strong></td>
<td>Select icon to save</td>
<td>Save any list, MSDS, and other reports</td>
</tr>
<tr>
<td><img src="Image" alt="Email" /></td>
<td><strong>Email</strong></td>
<td>select icon to email</td>
<td>send email for any list, MSDS, and other reports as attachments</td>
</tr>
<tr>
<td><img src="Image" alt="Minimize" /></td>
<td><strong>Minimize</strong></td>
<td>Minimize screen/window</td>
<td>Minimize screen/window</td>
</tr>
<tr>
<td><img src="Image" alt="Maximize" /></td>
<td><strong>Maximize</strong></td>
<td>Maximize screen/window</td>
<td>Maximize screen/window</td>
</tr>
<tr>
<td><img src="Image" alt="Close" /></td>
<td><strong>Close</strong></td>
<td>Close screen/window</td>
<td>Close screen/window</td>
</tr>
<tr>
<td><img src="Image" alt="Track in Material, Document list" /></td>
<td><strong>Track in Material, Document list</strong></td>
<td>track a chemical in material view</td>
<td>identify where material is located</td>
</tr>
<tr>
<td><img src="Image" alt="Track in RA view" /></td>
<td><strong>Track in RA view</strong></td>
<td>Track a risk assessment material</td>
<td>Identify where the risk assessment material is located</td>
</tr>
<tr>
<td><img src="Image" alt="GO for General Search" /></td>
<td><strong>GO for General Search</strong></td>
<td>Select “GO” button to search for material/vendor</td>
<td>Command to conduct searches by material names/vendor to obtain (M)SDS</td>
</tr>
<tr>
<td><img src="Image" alt="GO in Folder Search" /></td>
<td><strong>GO in Folder Search</strong></td>
<td>Select “GO” button to search for Folders/Stores</td>
<td>Command to conduct searches within the tree structure for specific folders/stores</td>
</tr>
<tr>
<td><img src="Image" alt="Show Own" /></td>
<td><strong>Show Own</strong></td>
<td>Load entire inventory</td>
<td>Displays organizational material register (inventory)</td>
</tr>
<tr>
<td><img src="Image" alt="Full" /></td>
<td><strong>Full</strong></td>
<td>select (complete Chemwatch database)</td>
<td>search from the complete database</td>
</tr>
<tr>
<td><img src="Image" alt="Own" /></td>
<td><strong>Own</strong></td>
<td>select (customized register)</td>
<td>search from the organizational material register</td>
</tr>
<tr>
<td><img src="Image" alt="Clear" /></td>
<td><strong>Clear</strong></td>
<td>Clear search results</td>
<td>Clear search results to start a new search</td>
</tr>
<tr>
<td><img src="Image" alt="Expand" /></td>
<td><strong>Expand By</strong></td>
<td>Expand Tree Structure</td>
<td>Display the tree structure nodes to view areas/sections/locations</td>
</tr>
<tr>
<td><img src="Image" alt="Home Back/Forward" /></td>
<td><strong>Home Back/Forward</strong></td>
<td>display previous window or list</td>
<td>select the back/forward arrows to view previous list or window</td>
</tr>
<tr>
<td><img src="Image" alt="Folder Search Panel" /></td>
<td><strong>Folder Search Panel</strong></td>
<td>Search for a folder</td>
<td>Conduct a specific search for a particular folder within the tree structure</td>
</tr>
<tr>
<td><img src="Image" alt="Simple" /></td>
<td><strong>Simple</strong></td>
<td>Simple Mode</td>
<td>restore to simple search mode - no hazards option</td>
</tr>
<tr>
<td><img src="Image" alt="Advanced" /></td>
<td><strong>Advanced</strong></td>
<td>Search by all types of hazards</td>
<td>Search for material by including other search options by specific type of hazard or dangerous goods</td>
</tr>
<tr>
<td><img src="Image" alt="Tags" /></td>
<td><strong>Tags</strong></td>
<td>Tag element</td>
<td>Tag assigned preferred name/part number by updating or refreshing data entry</td>
</tr>
<tr>
<td><img src="Image" alt="Folder Tree Nodes" /></td>
<td><strong>Folder Tree Nodes</strong></td>
<td>Parent Tree Node</td>
<td>Select parent node to expand child node(s)</td>
</tr>
<tr>
<td><img src="Image" alt="Folder Tree Nodes" /></td>
<td><strong>Folder Tree Nodes</strong></td>
<td>Child node</td>
<td>Select child node to expand lower level node(s)</td>
</tr>
<tr>
<td><img src="Image" alt="Workbook" /></td>
<td><strong>Workbook</strong></td>
<td>Download application workbook</td>
<td>Download application user guide</td>
</tr>
</tbody>
</table>
Workplace Health and Safety Governmental States Website

The following table provides the links to state government websites on OHS/WHS to search for more information and relevant compliance to applicable regulatory standards relevant to each state.

<table>
<thead>
<tr>
<th>No</th>
<th>Work Health and Safety Statutory Bodies</th>
<th>Website Links</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WorkSafe Victoria</td>
<td><a href="http://www.worksafe.vic.gov.au">http://www.worksafe.vic.gov.au</a></td>
</tr>
<tr>
<td>2</td>
<td>SafeWork South Australia</td>
<td><a href="http://www.safework.sa.gov.au">http://www.safework.sa.gov.au</a></td>
</tr>
<tr>
<td>5</td>
<td>WorkCover New South Wales</td>
<td><a href="http://www.workcover.nsw.gov.au">http://www.workcover.nsw.gov.au</a></td>
</tr>
</tbody>
</table>
### Risk Assessment Module User Interface Tools, Buttons and Icons

<table>
<thead>
<tr>
<th>COLUMN</th>
<th>BUTTONS/ICONS</th>
<th>DEFINITION</th>
<th>COLLAPSED VIEW MODE FUNCTIONALITY DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Expand</td>
<td>Press toggle icon in collapsed view to expand view. See more in Expanded View Mode for record details.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Track</td>
<td>Press track icon to locate material in folder tree (track jobs) which highlights folder/store if it is found in a single or multiple folders/stores.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Key locked</td>
<td>Press the key lock icon to open locked horizontal bar elements.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Key unlocked</td>
<td>Press the opened key lock icon to lock horizontal bar elements and save risk assessment.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vendor SDS</td>
<td>Press Vendor SDS (Manufacturer or Supplier Safety Data Sheet) to view a single or multiple available document(s).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RA Task</td>
<td>Press the Task icon to apply a task from the task menu to continue with the risk assessment of the chemical.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Copy</td>
<td>Select Copy icon to copy the Chemical Risk Assessment.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chemical Name</td>
<td>Sort by Chemical Name header in alphabetical order. Links to vendor SDS for the chemical, option to select task defined in terms of utility along with mode selector/roll barrel.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Status of the Risk Assessment Audit</td>
<td>Status Filter provides the status of the RA for that particular chemical.</td>
<td>Filter by the status of the risk assessment:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assessment Required</td>
<td>Assessment Required</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assessment Complete</td>
<td>Assessment Complete</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Review Required</td>
<td>Review Required</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assessment Incomplete</td>
<td>Assessment Incomplete</td>
</tr>
<tr>
<td></td>
<td>Status Filter</td>
<td>Filter by the status of the risk assessment:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assessment Required</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assessment Incomplete</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reassessment Required</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assessment Completed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hazard Rating</td>
<td>Consequence Severity provides the hazard rating, allowing view and selection (in Expanded mode) of the associated hazards with the chemical tagged with risk code(s) and hazard code(s).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grey</td>
<td>Nil hazard level</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Blue</td>
<td>Low hazard level</td>
<td></td>
</tr>
</tbody>
</table>

GoldFFX Users Guide, Version GFX1.0_2013
Copyright © 2013 by Chemwatch. All Rights Reserved.
<table>
<thead>
<tr>
<th>Color</th>
<th>Hazard Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow</td>
<td>Minor hazard level</td>
</tr>
<tr>
<td>Orange</td>
<td>Moderate hazard level</td>
</tr>
<tr>
<td>Red</td>
<td>Major hazard level</td>
</tr>
<tr>
<td>Maroon+</td>
<td>Critical hazard level</td>
</tr>
</tbody>
</table>

- **Operating Temperature**
  - Operating temperature gauge for setting the parameters (btw -50 and 300 °C either by keying in the temperature value in the text box, e.g. 20°C or by dragging gauge pointer to desired temperature.

- **Volatility/Dustiness**
  - Capture properties of the chemicals volatility/dustiness (determine whether it’s a powder, crystal or solid). Roll barrel to select appropriate option. Note that for gaseous chemicals this volatility is locked against random updates.

- **Scale of Use**
  - Record quantity/scale of use of the chemical as risk enhances with bulk deployed as per frequency of use. The scale utilized ranges from grams, kilograms and tonnes. Roll barrel to select appropriate option.

- **Frequency of Use**
  - Capture the cycle and duration of chemical usage in terms of exposure on an hourly, daily, weekly and monthly.

- **Risk Band Ratings**
  - This is the final calculation that reflects the Risk Band (calculated from entries in the task column). Displays Hazard and Risk Codes entries, operating temperature, volatility/dustiness, scale and frequency of use) associated with the chemical for specific tasks and other parameters (further controls and other requirements). Controls are viewable on Expanded View Mode.

- **Unknown**
  - Risk not determined

- **No Risk**
  - Risk determined as none

- **Low Risk**
  - Low risk level

- **Minor Risk**
  - Minor risk

- **Moderate Risk**
  - Moderate risk

- **High Risk**
  - High risk

- **Controls (not adopted)**
  - Risk Control Measures can be adopted to reduce the Risk Band Rating and displays appropriate control panel window to project risk controls imposed for that particular chemical with respect to task defined.

- **Adopting Risk Control Measures**
  - Adopting Risk Controls Measures reveals green ticks and lower the overall risk further. Control icon turns green designating applied controls.

- **Discharge**
  - Medium of disposal/discharge of the chemical in 
    - Air
    - Land
    - Water
  - Medium of Discharge or Disposal
    - Air
    - Land
    - Water

---

GoldFFX Users Guide, Version GFX1.0_2013

Copyright © 2013 by Chemwatch. All Rights Reserved.
| RA Report | Links to generate RA Report. Risk Conclusions provide health protection information for workers with an obvious baseline for the calculation: chemicals which can cause more serious/adverse effects need a greater degree of control than less harmful/hazardous chemicals. Click on the Report button to display the Risk Assessment Report where user can assign a JOB to the Risk Assessment. The Job created will display in the JOBS Tab in accordance to its task descriptor. To access the JOB Report of the assessment, select JOBS Tab and click on Task Name to view JOB report. |
| Control Documents | Links to generate Report on Risk Controls adopted (Control Approach documents). |

**RA Tools Bar**

| Expand All | Group Chemicals as their locations as a cascade |
| Jobs Module | Create Jobs Create Jobs for the Risk Assessment Report. Access the Jobs based on Tasks within the Jobs Module |
| RA Settings | Apply RA Settings Choose applicable RA settings apart from the default Chemwatch based 5x5 matrix |
## Structure of an (M)SDS

### Sections

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identification of the Material and Supplier</td>
</tr>
<tr>
<td>2</td>
<td>Hazards Identification</td>
</tr>
<tr>
<td>3</td>
<td>Composition/Information on Ingredients</td>
</tr>
<tr>
<td>4</td>
<td>First Aid Measures</td>
</tr>
<tr>
<td>5</td>
<td>Fire Fighting Measures</td>
</tr>
<tr>
<td>6</td>
<td>Accidental Release Measures</td>
</tr>
<tr>
<td>7</td>
<td>Handling and Storage</td>
</tr>
<tr>
<td>8</td>
<td>Exposure Controls/Personal Protection</td>
</tr>
<tr>
<td>9</td>
<td>Physical and Chemical Properties</td>
</tr>
<tr>
<td>10</td>
<td>Stability and Reactivity</td>
</tr>
<tr>
<td>11</td>
<td>Toxicological Information</td>
</tr>
</tbody>
</table>

#### MSDS Header: Descriptive Content

**Identification of the Material and Supplier**
- **Product name**, supplier name, address and telephone number and **emergency contact number**
- Alternative names, synonyms, numbers, company product codes or other unique identifiers may also be used
- Provide the **recommended use** or intended use with any restrictions on use if applicable

**Hazards Identification**
- Hazard classification according to respective criteria, **statement** of overall hazardous or dangerous nature of the material. Wording to be used:
  - HAZARDOUS SUBSTANCE, DANGEROUS GOODS
  - HAZARDOUS SUBSTANCE, NON-DANGEROUS GOODS
  - DANGEROUS GOODS, NON-HAZARDOUS SUBSTANCE
- Description of hazards and appropriate warning information (**Risk and Safety Phrases**) associated with those hazards

**Composition/Information on Ingredients**
- **Pure Substance**
  - Chemical identity of the pure substance
  - Common name(s), synonym(s)
  - CAS Number(s)
- **Mixtures or Composite Materials**
  - Chemical identity of ingredients
  - Proportion of ingredients
  - CAS Numbers for ingredients

**First Aid Measures**
- Description of necessary first aid measures according to routes of exposure
- Indication of medical attention and notes to physician including description of symptoms
- Information on specific first aid facilities

**Fire Fighting Measures**
- Suitable extinguishing media
- Hazards from combustion products
- Precautions for fire fighters and special protective equipment to be used during an emergency situation

**Accidental Release Measures**
- Emergency procedures
- Methods and materials for containment and clean up

**Handling and Storage**
- Precautions for safe handling
- Conditions for safe storage
- Any incompatibility characteristics in terms of segregation, fire separation and prohibition

**Exposure Controls/Personal Protection**
- National exposure standards
- Biological limit values
- Engineering Controls
- Personal Protective Equipment (PPE)

**Physical and Chemical Properties**
- Identification of empirical data such as appearance (colour, physical form, shape), odour, pH, solubility, flash point, ignition temperature, etc.
- Additional Information, for example, intensely burning characteristics, decomposition temperature, etc.

**Stability and Reactivity**
- Chemical stability and conditions to avoid
- Identify incompatible materials and hazardous reactions
- Hazardous decomposition products

**Toxicological Information**
- **Health Effects** – acute and chronic
- **Routes of exposure** (skin/eye, inhalation, ingestion)
- **Any carcinogenic effects**
<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Ecological Information</td>
</tr>
<tr>
<td></td>
<td>- Compounding effects</td>
</tr>
<tr>
<td></td>
<td>- Ecotoxicity</td>
</tr>
<tr>
<td></td>
<td>- Persistence and degradability</td>
</tr>
<tr>
<td></td>
<td>- Mobility</td>
</tr>
<tr>
<td>13</td>
<td>Disposal Considerations</td>
</tr>
<tr>
<td></td>
<td>- Disposal methods</td>
</tr>
<tr>
<td></td>
<td>- Special precautions for landfill or incineration</td>
</tr>
<tr>
<td>14</td>
<td>Transport Information</td>
</tr>
<tr>
<td></td>
<td>- Provide basic classification information for transportation and shipment</td>
</tr>
<tr>
<td></td>
<td>- UN Number</td>
</tr>
<tr>
<td></td>
<td>- UN Proper Shipping Name</td>
</tr>
<tr>
<td></td>
<td>- Dangerous Goods Class and subsidiary risk(s)</td>
</tr>
<tr>
<td></td>
<td>- Packing Group</td>
</tr>
<tr>
<td></td>
<td>- Special precautions for user</td>
</tr>
<tr>
<td></td>
<td>- Hazchem Code</td>
</tr>
<tr>
<td>15</td>
<td>Regulatory Information</td>
</tr>
<tr>
<td></td>
<td>- Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) under the Therapeutic Goods Act (1989)</td>
</tr>
<tr>
<td></td>
<td>- Applicable prohibition, notification/licensing requirements including carcinogens under Commonwealth, State or Territory legislation</td>
</tr>
<tr>
<td></td>
<td>- Agricultural and Veterinary Chemicals Act (1988)</td>
</tr>
<tr>
<td></td>
<td>- Industrial Chemicals (Notification and Assessment) Act (1989)</td>
</tr>
<tr>
<td></td>
<td>- Listing on the Australian Inventory of Chemicals Substances (AICS)</td>
</tr>
<tr>
<td></td>
<td>- Additional national and/or international regulatory information should be included</td>
</tr>
<tr>
<td>16</td>
<td>Other Information</td>
</tr>
<tr>
<td></td>
<td>- MSDS preparatory information, date of preparation or last revision of the MSDS</td>
</tr>
<tr>
<td></td>
<td>- Provide key/legend to abbreviations and acronyms used in the MSDS</td>
</tr>
<tr>
<td></td>
<td>- Provide literature references and sources of data</td>
</tr>
</tbody>
</table>
Dangerous Goods

Dangerous Goods can be identified as substances which when stored or transported in bulk present a hazard from explosion, fire, poisoning or corrosion on short term exposure. As stated in the National Occupational Health and Safety Commission’s (NOHSC) Guidance Notes, “Dangerous Goods may also be referred to as subsets of hazardous materials”. The NOHSC publications for hazardous substances also apply to all the substances under the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code 7) and substances that meet the classification criteria of the Code. The CHEMWATCH system provides information about the relevant diamond classes required for Placarding as well as the related subsidiary risks and packaging groups.

Dangerous Goods Class Labels

All dangerous goods are assigned class labels to assist identification and denote the hazard class of a particular substance. Class labels are represented by a diamond shaped warning sign and description of the principal hazard. Example: Class 2.1 Flammable Gas, Class 4.1 Flammable Solid.

Class 1- Explosives

Explosives substances can form an explosive atmosphere of gas, vapour or dust. The class also includes substances and articles produced for an explosive or pyrotechnic effect.

Class 1.1
A substance which is able to exert a mass explosion hazard whereby the entire load is affected.

Class 1.2
A substances or article with a projection hazard but not a mass explosion hazard.

Class 1.3
These substances and articles can produce quantities of radiant heat or burn one another causing either a minor blast or a minor projection hazard or both, but not a mass explosion.

Class 1.4
Small hazards are presented by these substances, in the event of ignition or initiation during transport. Effects are confined to the package, no projection of fragments of appreciable size or range is expected. External fire should not cause instantaneous explosion of the total load.

Class 1.5
Extremely explosive and sensitive substances able to induce a mass explosion hazard.

Class 1.6
This class contains extremely insensitive detonating substances that demonstrate a negligible probability of exploding.
Class 2 - Gases

- Exhibit a vapour pressure greater than 300kPa at 50 degrees Celsius.
- Completely gaseous at 20 degrees at Standard Temperature and Pressure (STP).
- Subdivision during transport is required and it is determined by the primary hazard of the gas.

Class 2.1 - Flammable Gases

Flammable gases are gases that can ignite in air if the flammable/vapour concentration lies within certain limits. These limits are identified as the upper and lower flammable or explosive limits. The flammable range is the flammable vapour/air concentration, which falls between these limits. The flammable or explosive limits are expressed as the percentage of a particular vapour in air. The vapour/air density is usually greater than one, therefore many flammable gases will settle in low areas.

Examples: propane, butane, ethylene, acetylene and Liquid Petroleum Gas.

Class 2.2 - Non Flammable, Non Toxic Gases.

Class 2.2 gases are not flammable when exposed to an ignition source, nor are they toxic.

Non flammable and non toxic gases are asphyxiants, diluting or replacing the oxygen content in the atmosphere.

Examples include compressed air, nitrogen, argon and carbon dioxide.

Class 2.3 - Toxic Gases

Class 2.3 gases are very toxic or corrosive to humans, so they may pose a health hazard.

Inhalation may cause death or seriously damage human health.

Lingering and irritating odours often identify some but not all toxic gases.

Breathing apparatus must also be provided in areas where toxic gases are stored or transported. Examples include: ammonia and sulphur dioxide.

Class 3 - Flammable Liquids

Liquids that can generate a vapour, forming a flammable mixture with air.

The flash point is the lowest temperature at which a liquid generates vapour which will remain alight when a flame is applied.

Examples: paints, varnishes, lacquers and solvent thinners

Class 3 is divided into Packing groups as follows:

Class 3 Packing Group I is Boiling Point <=35°C.

Class 3 Packing Group II is Flash Point <= 23°C, Boiling Point > 35°C.

Class 3 Packing Group III is Flash Point > 23°C to <=61°C, Boiling Point > 35°C.

Combustible Liquids are less flammable (higher flash point), but when stored in very large quantity or with other flammable liquids, they pose an increased hazard.
Class 4 - Flammable Solids
Solid substances which are flammable in air and can sustain spontaneous combustion and emit flammable gases upon contact with water.

Class 4.1 - Flammable Solids
Combust readily in the presence of external ignition sources like sparks and flames.
Examples: red phosphorus, picric acid, hexamine, sulphur and naphthalene.

Class 4.2 - Substances Liable to Sustain Spontaneous Combustion
Class 4.2 solids are able to heat up and catch fire spontaneously without any influence from external ignition sources.
Examples: Activated Carbon and White Phosphorus.

Class 4.3 - Substances in Contact with Water Emit Flammable Gases.
Able to spontaneously ignite when in contact with water.
Spontaneous ignition may occur as heat is liberated when the substance is in contact with water, producing flammable gases in dangerous quantities. Examples: sodium and calcium carbide.

Class 5 - Oxidising Agents
Oxygen is generally provided in a reactive form or is liberated to cause an oxidation process. High reactivity may lead to explosion or fire if in contact with combustible materials.

Class 5.1 - Oxidizing Substances
Contribute to the combustion of other materials.
Examples: Hydrogen peroxide and ammonium nitrate.

Class 5.2 - Organic Peroxides
Thermally unstable substances.
Substances with the ability to undergo exothermic self-accelerating decomposition as the substance contains its own oxygen in the chemical structure.
Decomposition of organic peroxides can lead to flammable and toxic gases being generated. Many organic peroxides also burn rapidly and are very sensitive to impact or friction. Examples: dibenzoyl peroxide and methyl ethyl ketone peroxide.
Class 6 - Toxic and Infectious Substances

Class 6.1 - Toxic Substances

These substances have the common nature of being able to cause death or serious injury if inhaled or in contact with the skin.
Examples: Calcium cyanide and lead arsenate.

Class 6.2 - Infectious Substances

Substances containing disease yielding organisms and are not subject to the regulations of the Australian Dangerous Goods Code. However, they are incorporated in the Code if they are capable of spreading disease upon exposure.
Stringent clothing and personal protective equipment controls are required when handling or in contact with these substances.

Class 7 - Radioactive Materials

This class includes materials or combinations of these that can emit radiation spontaneously.
Example: Uranium.

Class 8 - Corrosive substances

Substances that may cause severe burns by chemical action when in contact with living tissue.
In the event of a leak, these substances also have the ability to damage or destroy goods and materials or cause other hazards.
Examples: Hydrochloric acid, nitric acid and sulfuric acid.

Class 9 - Miscellaneous Dangerous Goods

Substances and articles that present a danger especially during transport, not covered by other dangerous goods classes.
Class 9 substances have separate storage and transport requirements.
Examples: dry ice and asbestos. NB - Aerosols are no longer Class 9 dangerous goods. They are Class 2.1 or 2.2 (gases) depending on flammability.

Subsidiary Risk

Subsidiary risk categories are assigned to dangerous goods that pose more than the risk that is denoted by their class. The may also be referred to as the secondary risk or subsrisk. The subsidiary risk label is represented as the normal label with the number deleted.
Acquiring (M)SDS that are not in the collection may incur charges. When the annual allocation is used up, all requests for (M)SDS will commence charges based on the acquisition pricing per (M)SDS.

MSDS Acquisition (may incur charges)
- Chemwatch Review MSDS Authoring (may incur charges)
- Chemwatch We-write MSDS Authoring (may incur charges)
- Unlimited access to COLLECTION - no additional charge for the life of the contract
- MSDS Updates - no additional charge for the life of the contract

To register your Vendor MSDS to Chemwatch, you can send your inventory to customerservice@chemwatch.net and we can add this to your Own database.

Where Vendor MSDS are already available in The Collection, no extra charge is levied. If your Vendor MSDS is not in The Collection, then extra charges may incur for sourcing this MSDS from your Suppliers!!!

Where Chemwatch Gold MSDS are already available, no extra charge is levied. If you require authoring of Chemwatch Gold MSDS, please refer to your contract to see included MSDS writing services and prices or contact customerservice@chemwatch.net.
## Placarding Quantity

<table>
<thead>
<tr>
<th>Item</th>
<th>Dangerous Goods Class and Combustible Liquids</th>
<th>Packing Group</th>
<th>Placarding Quantity</th>
<th>Manifest Quantity</th>
<th>Dangerous Goods Class or Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Class 2</td>
<td>Not Applicable</td>
<td>500 L</td>
<td>5,000 L</td>
<td>Gases</td>
</tr>
<tr>
<td></td>
<td>Class 2.1</td>
<td>Not Applicable</td>
<td>2,000 L</td>
<td>10,000 L</td>
<td>Non-flammable, non-toxic gases</td>
</tr>
<tr>
<td></td>
<td>Class 2.2 - Subsidiary Risk 5.1</td>
<td>Not Applicable</td>
<td>5,000 L</td>
<td>10,000 L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class 2.2 – Other</td>
<td>Not Applicable</td>
<td>50 L</td>
<td>500 L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class 2.3</td>
<td>Not Applicable</td>
<td>5,000 L</td>
<td>10,000 L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aerosols</td>
<td>Not Applicable</td>
<td>1,000 L</td>
<td>10,000 L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cryogenic Fluids</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Any one of Class 3, 4.1, 4.2, 4.3, 5.1, 5.2, 6.1 or 8</td>
<td>I</td>
<td>50 kg or L</td>
<td>500 kg or L</td>
<td>GDC3 - Flammable Liquid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>II</td>
<td>250 kg or L</td>
<td>2500 kg or L</td>
<td>DGC4.1- Flammable Solids</td>
</tr>
<tr>
<td></td>
<td></td>
<td>III</td>
<td>1,000 kg or L</td>
<td>10,000 kg or L</td>
<td>DGC4.2- Substances liable to spontaneous combustion</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DGC4.3- Substances in contact with water emit flammable gases</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DGC5.1- Oxidising Substances</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DGC5.2- Organic Peroxides</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DGC6.1- Toxic Substances</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DGC8 – Corrosive Substances</td>
</tr>
<tr>
<td></td>
<td>Mixed Packing Groups in a single Class of dangerous goods where none of the Packing Groups present exceeds the quantities specified in Item 2 of this Table.</td>
<td></td>
<td>1,000 kg or L</td>
<td>10,000 kg or L</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Class 9</td>
<td>II</td>
<td>1,000 kg or L</td>
<td>10,000 kg or L</td>
<td>DGC9 – Miscellaneous Dangerous Goods and articles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>III</td>
<td>5,000 kg or L</td>
<td>10,000 kg or L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mixed Packing Groups in a single. Class of dangerous goods where none of the Packing Groups present exceeds the quantities specified in Item 3 of this Table.</td>
<td></td>
<td>5,000 kg or L</td>
<td>10,000 kg or L</td>
<td></td>
</tr>
<tr>
<td>4(a)</td>
<td>Mixed Classes of dangerous goods where none of the Classes, types and Packing Groups (if any) present exceeds the quantities specified in Items 1,</td>
<td>Not Applicable</td>
<td>2,000 kg or L</td>
<td>10,000 kg or L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mixed Classes of dangerous goods where none of the Classes, types and Packing Groups (if any) present exceeds the quantities specified in Items 1, 2 and 3 of this Table.</td>
<td>Not Applicable</td>
<td>5,000 kg or L Where the quantity specified in this Schedule for one or more of the Classes is 5,000 kg or L and Placarding is not required for Items 1,2,3, and 4a.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4(b)</td>
<td>Goods Too Dangerous To Be Transported</td>
<td>Not Applicable</td>
<td>5 kg or L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Combustible liquids with fire risk dangerous goods</td>
<td>Not Applicable</td>
<td>1,000 kg or L Includes both C1, C2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>C1 Combustible liquids</td>
<td>Not Applicable</td>
<td>10,000 L In <em>bulk containers</em> 50,000 L In <em>packages</em> 50,000 L <em>Bulk and packaged</em> combined provided the quantity of C1s in <em>bulk</em> does not exceed 10,000 L.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## GHS Categories, Signal Words, Hazard Codes/Statements and Symbols

<table>
<thead>
<tr>
<th>HAZARD CLASS</th>
<th>EXPLOSIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAZARD CATEGORY</td>
<td>SIGNAL WORD</td>
</tr>
<tr>
<td>Unstable Explosive</td>
<td>DANGER</td>
</tr>
<tr>
<td>Division 1.1</td>
<td></td>
</tr>
<tr>
<td>Division 1.2</td>
<td></td>
</tr>
<tr>
<td>Division 1.3</td>
<td></td>
</tr>
<tr>
<td>Division 1.4</td>
<td>WARNING</td>
</tr>
<tr>
<td>Division 1.5</td>
<td>DANGER</td>
</tr>
<tr>
<td>Division 1.6</td>
<td>NO SIGNAL WORD</td>
</tr>
</tbody>
</table>

The symbol is according to the ADG Code for the transport of dangerous goods.

<table>
<thead>
<tr>
<th>HAZARD CLASS</th>
<th>FLAMMABLE GASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAZARD CATEGORY</td>
<td>SIGNAL WORD</td>
</tr>
<tr>
<td>1</td>
<td>DANGER</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HAZARD CLASS</th>
<th>FLAMMABLE AEROSOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DANGER</td>
</tr>
<tr>
<td>2</td>
<td>WARNING</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HAZARD CLASS</th>
<th>OXIDISING GASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DANGER</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HAZARD CLASS</th>
<th>GASES UNDER PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressed Gas</td>
<td>WARNING</td>
</tr>
<tr>
<td>Liquefied Gas</td>
<td></td>
</tr>
<tr>
<td>Dissolved Gas</td>
<td>WARNING</td>
</tr>
<tr>
<td>Refrigerated liquefied gas</td>
<td>WARNING</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HAZARD CLASS</th>
<th>FLAMMABLE LIQUIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DANGER</td>
</tr>
<tr>
<td>2</td>
<td>DANGER</td>
</tr>
</tbody>
</table>
### Flammable Liquids and Vapours

<table>
<thead>
<tr>
<th>Number</th>
<th>Type</th>
<th>HAZARD CLASS</th>
<th>HAZARD STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>WARNING</td>
<td>H226</td>
<td>Flammable liquid and vapour</td>
</tr>
<tr>
<td>4</td>
<td>WARNING</td>
<td>H227</td>
<td>Combustible liquid</td>
</tr>
</tbody>
</table>

### Flammable Solids

<table>
<thead>
<tr>
<th>Number</th>
<th>Type</th>
<th>HAZARD CLASS</th>
<th>HAZARD STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DANGER</td>
<td>H228</td>
<td>Flammable solid</td>
</tr>
<tr>
<td>2</td>
<td>WARNING</td>
<td>H228</td>
<td>Flammable solid</td>
</tr>
</tbody>
</table>

### Self-Reactive Substances and Mixtures

#### Type A

<table>
<thead>
<tr>
<th>Type</th>
<th>HAZARD CLASS</th>
<th>HAZARD STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANGER</td>
<td>Heating may cause an explosion</td>
<td></td>
</tr>
</tbody>
</table>

#### Type B

<table>
<thead>
<tr>
<th>Type</th>
<th>HAZARD CLASS</th>
<th>HAZARD STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANGER</td>
<td>Heating may cause a fire or explosion</td>
<td></td>
</tr>
</tbody>
</table>

#### Type C

<table>
<thead>
<tr>
<th>Type</th>
<th>HAZARD CLASS</th>
<th>HAZARD STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANGER</td>
<td>Heating may cause a fire</td>
<td></td>
</tr>
</tbody>
</table>

#### Type D

<table>
<thead>
<tr>
<th>Type</th>
<th>HAZARD CLASS</th>
<th>HAZARD STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANGER</td>
<td>Heating may cause a fire</td>
<td></td>
</tr>
</tbody>
</table>

#### Type E

<table>
<thead>
<tr>
<th>Type</th>
<th>HAZARD CLASS</th>
<th>HAZARD STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>WARNING</td>
<td>Heating may cause a fire</td>
<td></td>
</tr>
</tbody>
</table>

#### Type F

<table>
<thead>
<tr>
<th>Type</th>
<th>HAZARD CLASS</th>
<th>HAZARD STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>WARNING</td>
<td>Heating may cause a fire</td>
<td></td>
</tr>
</tbody>
</table>

#### Type G

<table>
<thead>
<tr>
<th>Type</th>
<th>HAZARD CLASS</th>
<th>HAZARD STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANGER</td>
<td>Heating may cause a fire</td>
<td></td>
</tr>
</tbody>
</table>

### Pyrophoric Liquids

<table>
<thead>
<tr>
<th>Number</th>
<th>Type</th>
<th>HAZARD CLASS</th>
<th>HAZARD STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DANGER</td>
<td>H250</td>
<td>Catches fire spontaneously if exposed to air</td>
</tr>
</tbody>
</table>

### Pyrophoric Solids

<table>
<thead>
<tr>
<th>Number</th>
<th>Type</th>
<th>HAZARD CLASS</th>
<th>HAZARD STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DANGER</td>
<td>H250</td>
<td>Catches fire spontaneously if exposed to air</td>
</tr>
</tbody>
</table>

### Self-Heating Substances and Mixtures

<table>
<thead>
<tr>
<th>Number</th>
<th>Type</th>
<th>HAZARD CLASS</th>
<th>HAZARD STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DANGER</td>
<td>H251</td>
<td>Self-heating; may catch fire</td>
</tr>
<tr>
<td>2</td>
<td>WARNING</td>
<td>H252</td>
<td>Self-heating in large quantities; may catch fire</td>
</tr>
</tbody>
</table>

### Organic Peroxides

#### Type A

<table>
<thead>
<tr>
<th>Type</th>
<th>HAZARD CLASS</th>
<th>HAZARD STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANGER</td>
<td>Heating may cause a fire or explosion</td>
<td></td>
</tr>
</tbody>
</table>

#### Type B

<table>
<thead>
<tr>
<th>Type</th>
<th>HAZARD CLASS</th>
<th>HAZARD STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANGER</td>
<td>Heating may cause a fire or explosion</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>HAZARD CLASS</td>
<td>SIGNAL WORD</td>
</tr>
<tr>
<td>------</td>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>C</td>
<td>DANGER</td>
<td>H242</td>
</tr>
<tr>
<td>D</td>
<td>DANGER</td>
<td>H242</td>
</tr>
<tr>
<td>E</td>
<td>WARNING</td>
<td>H242</td>
</tr>
<tr>
<td>F</td>
<td>WARNING</td>
<td>H242</td>
</tr>
</tbody>
</table>

**HAZARD CLASS**  CORROSIVE TO METALS

<table>
<thead>
<tr>
<th>HAZARD CATEGORY</th>
<th>SIGNAL WORD</th>
<th>HAZARD STATEMENT</th>
<th>TYPE OF SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WARNING</td>
<td>H290 May be corrosive to metals</td>
<td>Corrosion</td>
</tr>
</tbody>
</table>

**HAZARD CLASS**  ACUTE TOXICITY-ORAL

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>SIGNAL WORD</th>
<th>HAZARD STATEMENT</th>
<th>TYPE OF SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DANGER</td>
<td>H300 Fatal if swallowed</td>
<td>Skull and crossbones</td>
</tr>
<tr>
<td>2</td>
<td>DANGER</td>
<td>H300 Fatal if swallowed</td>
<td>Skull and crossbones</td>
</tr>
<tr>
<td>3</td>
<td>DANGER</td>
<td>H301 Toxic if swallowed</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>WARNING</td>
<td>H302 Harmful if swallowed</td>
<td>Exclamation mark</td>
</tr>
</tbody>
</table>

**HAZARD CLASS**  ACUTE TOXICITY- DERMAL

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>SIGNAL WORD</th>
<th>HAZARD STATEMENT</th>
<th>TYPE OF SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DANGER</td>
<td>H310 Fatal in contact with skin</td>
<td>Skull and Crossbones</td>
</tr>
<tr>
<td>2</td>
<td>DANGER</td>
<td>H310 Fatal in contact with skin</td>
<td>Skull and Crossbones</td>
</tr>
<tr>
<td>3</td>
<td>DANGER</td>
<td>H311 Toxic in contact with skin</td>
<td>Exclamation mark</td>
</tr>
<tr>
<td>4</td>
<td>WARNING</td>
<td>H312 Harmful in contact with skin</td>
<td>Exclamation mark</td>
</tr>
</tbody>
</table>

**HAZARD CLASS**  ACUTE TOXICITY- INHALATION

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>SIGNAL WORD</th>
<th>HAZARD STATEMENT</th>
<th>TYPE OF SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DANGER</td>
<td>H330 Fatal if inhaled</td>
<td>Skull and Crossbones</td>
</tr>
<tr>
<td>2</td>
<td>DANGER</td>
<td>H330 Fatal if inhaled</td>
<td>Skull and Crossbones</td>
</tr>
<tr>
<td>3</td>
<td>DANGER</td>
<td>H331 Toxic if inhaled</td>
<td>Exclamation mark</td>
</tr>
<tr>
<td>4</td>
<td>WARNING</td>
<td>H332 Harmful if inhaled</td>
<td>Exclamation mark</td>
</tr>
<tr>
<td>HAZARD CLASS</td>
<td>ACUTE TOXICITY - INHALATION</td>
<td>Corrosion</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>----------------------------------------------------------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>1A to 1C</td>
<td>DANGER</td>
<td>H314</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Causes severe skin burns and eye damage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>WARNING</td>
<td>H315</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Causes skin irritation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| HAZARD CLASS                                       | SERIOUS EYE DAMAGE/IRRITATION                                   |
|----------------------------------------------------|----------------------------------------------------------------|-----------|
| 1                                                 | DANGER                                                          | H318      |
|                                                  | Causes serious eye damage                                       |           |
| 2A                                                | WARNING                                                         | H319      |
|                                                  | Causes serious eye irritation                                   |           |

<table>
<thead>
<tr>
<th>HAZARD CLASS</th>
<th>SENSITISATION - RESPIRATORY</th>
<th>Health Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 1A, 1B</td>
<td>DANGER</td>
<td>H334</td>
</tr>
<tr>
<td></td>
<td>May cause allergy or asthma symptoms or breathing difficulties if inhaled</td>
<td></td>
</tr>
</tbody>
</table>

| HAZARD CLASS                                      | SENSITISATION - SKIN                                            |
|---------------------------------------------------|----------------------------------------------------------------|-----------|
| 1, 1A, 1B                                        | WARNING                                                         | H317      |
|                                                  | May cause an allergic skin reaction                             |           |

| HAZARD CLASS                                      | GERM CELL MUTAGENICITY                                          |
|---------------------------------------------------|----------------------------------------------------------------|-----------|
| 1A, 1B                                           | DANGER                                                          | H340      |
|                                                  | May cause genetic defects                                       |           |
|                                                  | <...> (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard) |           |
| 2                                                | WARNING                                                         | H341      |
|                                                  | Suspected of causing genetic defects                            |           |

| HAZARD CLASS                                      | CARCINOGENICITY                                                |
|---------------------------------------------------|----------------------------------------------------------------|-----------|
| 1A, 1B                                           | DANGER                                                          | H350      |
|                                                  | May cause cancer                                                |           |
|                                                  | <...> (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard) |           |
| 2                                                | WARNING                                                         | H351      |
|                                                  | Suspected of causing cancer                                     |           |

| HAZARD CLASS                                      | TOXIC TO REPRODUCTION (effects on or via lactation)             |
|---------------------------------------------------|----------------------------------------------------------------|-----------|
| 1A, 1B                                           | DANGER                                                          | H360      |
|                                                  | May damage fertility or the unborn child                         |           |
|                                                  | <...> (state specific effect if known)                          |           |
|                                                  | <...> (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard) |           |
### WARNING

- **H361** Suspected of damaging fertility or the unborn child
  
- **H362** May cause harm to breast-fed children

### HAZARD CLASS
**SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)**

<table>
<thead>
<tr>
<th>HAZARD CATEGORY</th>
<th>SIGNAL WORD</th>
<th>HAZARD STATEMENT</th>
<th>TYPE OF SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DANGER</td>
<td>Causes damage to organs (state all organs affected if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</td>
<td>Health Hazard</td>
</tr>
<tr>
<td>2</td>
<td>WARNING</td>
<td>May cause damage to organs (state all organs affected if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</td>
<td>Health Hazard</td>
</tr>
<tr>
<td>3</td>
<td>WARNING</td>
<td>May cause respiratory irritation; or May cause drowsiness or dizziness</td>
<td>Exclamation mark</td>
</tr>
</tbody>
</table>

### HAZARD CLASS
**SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE)**

<table>
<thead>
<tr>
<th>HAZARD CATEGORY</th>
<th>SIGNAL WORD</th>
<th>HAZARD STATEMENT</th>
<th>TYPE OF SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DANGER</td>
<td>Causes damage to organs (state all organs affected if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</td>
<td>Health Hazard</td>
</tr>
<tr>
<td>2</td>
<td>WARNING</td>
<td>May cause damage to organs (state all organs affected if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</td>
<td>Health Hazard</td>
</tr>
</tbody>
</table>

### HAZARD CLASS
**SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE)**

<table>
<thead>
<tr>
<th>HAZARD CATEGORY</th>
<th>SIGNAL WORD</th>
<th>HAZARD STATEMENT</th>
<th>TYPE OF SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DANGER</td>
<td>May be fatal if swallowed and enters airways</td>
<td>Health Hazard</td>
</tr>
</tbody>
</table>
Incompatibility - Segregation

Compatibility Chart Key

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>May be compatible in many cases with exceptions. Follow the alphabetical compatible goods guidance notes.</td>
</tr>
<tr>
<td>✗</td>
<td>Likely to be incompatible. Segregation strongly recommended, follow the segregation of guidance notes for incompatible goods.</td>
</tr>
</tbody>
</table>

Compatibility and Segregation Chart

<table>
<thead>
<tr>
<th>Class of goods</th>
<th>2.1</th>
<th>2.2</th>
<th>2.2 SR 5.1</th>
<th>2.3</th>
<th>3</th>
<th>4.1</th>
<th>4.2</th>
<th>4.3</th>
<th>5.1</th>
<th>5.2</th>
<th>6.1</th>
<th>8</th>
<th>9</th>
<th>Combustible liquids</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>2.2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>2.2 SR 5.1</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>2.3</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>3</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>4.1</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>4.2</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>4.3</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>5.1</td>
<td>✗</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>5.2</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>6.1</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>8</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
</tbody>
</table>

GoldFFX Users Guide, Version GFX1.0_2013
### Segregation Guidance Notes for Incompatible Goods

<table>
<thead>
<tr>
<th>Segregation Class</th>
<th>Segregation Guidance Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>Segregate these goods by 3m or more in a well-ventilated area. For liquid dangerous goods the distance is measured from the edge of the spill catchment area. See supplementary notes 6 and 7.</td>
</tr>
<tr>
<td>S2</td>
<td>Segregate by 5 m or more. If one of the dangerous goods is a liquid, measure the distance from the edge of the spill catchment area. Liquid dangerous goods should be located within a separate spill catchment area. See supplementary notes 6 and 7.</td>
</tr>
<tr>
<td>S3</td>
<td>Segregate by 3 m or more for PG III goods and 5m or more for PG II, PG I goods or where the goods may react dangerously. If both are solids then a minimum of 1m separation may be used. Where one of the goods is a liquid the distance is measured from the edge of the spill catchment area. See supplementary notes 6 and 7.</td>
</tr>
<tr>
<td>S4</td>
<td>Segregation preferred by the use of fire-rated partitioned areas. Consider use of separate detached building for organic peroxides and for highly pyrophoric class 4.2 goods.</td>
</tr>
<tr>
<td>S5</td>
<td>Segregation of class 4.3 preferred by use of a separate, detached building without water based fire suppression system.</td>
</tr>
</tbody>
</table>

### Compatible Goods Guidance Notes

A. In most cases materials of the same class will be compatible. However, not all materials with different UN Numbers will always be compatible. The SDS should be checked.

B. In many cases the goods will be compatible. Must check for subsidiary risk compatibility and the SDS.

C. If one of the goods present is also a fire risk substance (one of class 2.1, 3, 4, 5, a combustible liquid or has a subsidiary risk of one of these) or elevated temperature goods, segregation is required by at least 3 m or more. Sub-risk MUST be considered. Other exceptions apply. Check the SDS.

D. Not all class 5.1 goods are compatible as follows:

- Ammonium nitrate is not compatible with tetranitromethane, dichloroisocyanuric acid, any bromate, chlorate, chloride, hypochlorites, or chloroisocyanurate, or any inorganic nitrate.
- Calcium hypochlorite (and its mixtures) are incompatible with dichloroisocyanuric acid, ammonium nitrate, or any chloroisocyanurate.

E. Organic peroxides are highly reactive materials. Please check the SDS to ensure compatibility.

F. Where one of the goods to be stored together is a concentrated strong acid and the other a concentrated strong alkali, they should be deemed incompatible.
G. Class 4.3 goods must not be stored next to goods that are in a solution containing water, or where water or foam is the chosen fire fighting/spill/leak dispersal or suppression media for the storage area.

H. Except where the class 6.1 is cyanide and the class 8 an acid. Check the SDS.

I. Toxic gases ammonia and chlorine must be segregated due to risk of explosion. It is important to refer to the SDS for incompatibilities within this class division. It is strongly recommended that each different toxic gas (Class 2.3) be segregated unless information in the SDS says otherwise.

**Supplementary Notes for Use with Segregation Tool**

1. **Class 2 dangerous goods** (i.e. gases) are generally not recommended to be stored with any other class of dangerous goods particularly flammable dangerous goods due to the risk of flame impingement and over pressurisation of cylinders. Corrosive goods can cause corrosion damage to the gas cylinder walls and thus should be kept away from class 2. In a fire situation, gas cylinders need to have copious quantities of water applied to keep them cool. Toxic gases are stored away from other gases to minimise the release of toxic gases in a fire with other gases.

2. **Class 6.1 dangerous goods** are not recommended to be stored with fire risk goods or gas cylinders. In the event of a fire, the toxic material will be liberated and may be spread more effectively due to the heat of the fire or explosion of gas cylinders.

3. Two or more goods within the same class with incompatible subsidiary risk should be kept apart.

4. The packing group (PG) of dangerous goods denotes the magnitude of danger the material poses from its hazard. PG I is most dangerous. PG II these are more dangerous than PG III. If one of the incompatible materials is a PG I or II dangerous goods it is recommended that a greater segregation distance or other means of segregation is employed.

5. If **class 4.3 dangerous goods** are stored or handled care needs to be taken to segregate these away from all containers of aqueous (water containing) solutions even if the solutions are not dangerous goods. The areas these materials are stored in must not be serviced by a water based fire suppression system.

6. If one of the incompatible goods is a liquid OR a solid that is likely to melt from the heat of a fire, separate spill catchment systems or means of separating the incompatible goods must be considered. Solid dangerous goods should not be stored in direct contact with floor surface to avoid contact with liquids.

7. Fire rated walls constructed of appropriate impervious, chemically resistant materials may be used if provided with an FRL of 240/240/240. Timber structures are not appropriate barriers.

8. In the case of incompatible gases in cylinders intended for use in welding (such as acetylene and oxygen), these gases may be stored together in a purpose built cradle and separated when not in use for extended periods of time.

9. For **oxidizing agents**: Although only dangerous goods and combustible liquids feature in the compatibility chart care must also be taken to segregate oxidizers from those dangerous goods and other materials that are combustible in nature (e.g. polymeric beads, cotton bales, excess packing materials). Chlorine and some other halogens are considered potent oxidizers even though their class and assigned with any oxidizing agent subsidiary risk under the dangerous goods classification system.

[Courtesy of WHS, QLD]

### Risk Codes and Risk Phrases/Statements

<table>
<thead>
<tr>
<th>Risk Codes (R-Code)</th>
<th>Risk Phrase or Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>R20</td>
<td>Harmful by inhalation</td>
</tr>
<tr>
<td>R21</td>
<td>Harmful in contact with skin</td>
</tr>
<tr>
<td>R22</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>R23</td>
<td>Toxic by inhalation</td>
</tr>
<tr>
<td>R24</td>
<td>Toxic in contact with skin</td>
</tr>
<tr>
<td>R25</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>R26</td>
<td>Very toxic by inhalation</td>
</tr>
<tr>
<td>R27</td>
<td>Very toxic in contact with skin</td>
</tr>
<tr>
<td>R28</td>
<td>Very toxic if swallowed</td>
</tr>
<tr>
<td>R29</td>
<td>Contact with water liberates toxic gas</td>
</tr>
<tr>
<td>R30</td>
<td>Contact with acids liberates toxic gas</td>
</tr>
<tr>
<td>R31</td>
<td>Contact with acids liberates very toxic gas</td>
</tr>
<tr>
<td>R32</td>
<td>Danger of cumulative effects</td>
</tr>
<tr>
<td>R33</td>
<td>Causes burns</td>
</tr>
<tr>
<td>R34</td>
<td>Irritating to eyes</td>
</tr>
<tr>
<td>R35</td>
<td>Irritating to respiratory system</td>
</tr>
<tr>
<td>R36</td>
<td>Irritating to skin</td>
</tr>
<tr>
<td>R37</td>
<td>Irritating to skin</td>
</tr>
<tr>
<td>R39</td>
<td>Danger of very serious irreversible effects</td>
</tr>
<tr>
<td>R40</td>
<td>Limited evidence of a carcinogenic effect</td>
</tr>
<tr>
<td>R41</td>
<td>Risk of serious eye damage</td>
</tr>
<tr>
<td>R42</td>
<td>May cause sensitisation by inhalation</td>
</tr>
<tr>
<td>R43</td>
<td>May cause sensitisation by skin contact</td>
</tr>
<tr>
<td>R44</td>
<td>May cause cancer</td>
</tr>
<tr>
<td>R46</td>
<td>May cause heritable genetic damage</td>
</tr>
<tr>
<td>R47</td>
<td>Danger of serious damage to health by prolonged exposure</td>
</tr>
<tr>
<td>R48</td>
<td>May cause cancer by inhalation</td>
</tr>
<tr>
<td>R50</td>
<td>May impair fertility</td>
</tr>
<tr>
<td>R51</td>
<td>May cause harm to the unborn child</td>
</tr>
<tr>
<td>R52</td>
<td>Possible risk of impaired fertility</td>
</tr>
<tr>
<td>R53</td>
<td>Possible risk of harm to the unborn child</td>
</tr>
<tr>
<td>R54</td>
<td>May cause harm to breastfed babies</td>
</tr>
<tr>
<td>R55</td>
<td>Harmful: may cause lung damage if swallowed</td>
</tr>
<tr>
<td>R56</td>
<td>Repeated exposure may cause skin dryness or cracking</td>
</tr>
<tr>
<td>R57</td>
<td>Vapours may cause drowsiness and dizziness</td>
</tr>
<tr>
<td>R58</td>
<td>Possible risk of irreversible effects</td>
</tr>
<tr>
<td>R20/21</td>
<td>Harmful by inhalation and in contact with skin</td>
</tr>
<tr>
<td>R20/22</td>
<td>Harmful by inhalation and if swallowed</td>
</tr>
<tr>
<td>R20/21/22</td>
<td>Harmful by inhalation, in contact with skin and if swallowed</td>
</tr>
<tr>
<td>R21/22</td>
<td>Harmful in contact with skin and if swallowed</td>
</tr>
<tr>
<td>R23/24</td>
<td>Toxic by inhalation and in contact with skin</td>
</tr>
<tr>
<td>R23/25</td>
<td>Toxic by inhalation and if swallowed</td>
</tr>
<tr>
<td>R23/24/25</td>
<td>Toxic by inhalation, in contact with skin and if swallowed</td>
</tr>
<tr>
<td>R24/25</td>
<td>Toxic in contact with skin and if swallowed</td>
</tr>
<tr>
<td>R26/27</td>
<td>Very toxic by inhalation and in contact with skin</td>
</tr>
<tr>
<td>R26/28</td>
<td>Very toxic by inhalation and if swallowed</td>
</tr>
<tr>
<td>R26/27/28</td>
<td>Very toxic by inhalation, in contact with skin and if swallowed</td>
</tr>
<tr>
<td>R27/28</td>
<td>Very toxic in contact with skin and if swallowed</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>R36/37</td>
<td>Irritating to eyes and respiratory system</td>
</tr>
<tr>
<td>R36/38</td>
<td>Irritating to eyes and skin</td>
</tr>
<tr>
<td>R36/37/38</td>
<td>Irritating to eyes, respiratory system and skin</td>
</tr>
<tr>
<td>R37/38</td>
<td>Irritating to respiratory system and skin</td>
</tr>
<tr>
<td>R39/23</td>
<td>Toxic: danger of very serious irreversible effects through inhalation</td>
</tr>
<tr>
<td>R39/24</td>
<td>Toxic: danger of very serious irreversible effects in contact with skin</td>
</tr>
<tr>
<td>R39/25</td>
<td>Toxic: danger of very serious irreversible effects if swallowed</td>
</tr>
<tr>
<td>R39/23/24</td>
<td>Toxic: danger of very serious irreversible effects through inhalation and in contact with skin</td>
</tr>
<tr>
<td>R39/23/25</td>
<td>Toxic: danger of very serious irreversible effects through inhalation and if swallowed</td>
</tr>
<tr>
<td>R39/26</td>
<td>Very toxic: danger of very serious irreversible effects through inhalation</td>
</tr>
<tr>
<td>R39/27</td>
<td>Very toxic: danger of very serious irreversible effects in contact with skin</td>
</tr>
<tr>
<td>R39/28</td>
<td>Very toxic: danger of very serious irreversible effects if swallowed</td>
</tr>
<tr>
<td>R39/26/27</td>
<td>Very toxic: danger of very serious irreversible effects through inhalation and in contact with skin</td>
</tr>
<tr>
<td>R39/26/28</td>
<td>Very toxic: danger of very serious irreversible effects through inhalation and if swallowed</td>
</tr>
<tr>
<td>R39/27/28</td>
<td>Very toxic: danger of very serious irreversible effects in contact with skin and if swallowed</td>
</tr>
<tr>
<td>R39/26/27/28</td>
<td>Very toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed</td>
</tr>
<tr>
<td>R68/20</td>
<td>Harmful: possible risk of irreversible effects through inhalation</td>
</tr>
<tr>
<td>R68/21</td>
<td>Harmful: possible risk of irreversible effects in contact with skin</td>
</tr>
<tr>
<td>R68/22</td>
<td>Harmful: possible risk of irreversible effects if swallowed</td>
</tr>
<tr>
<td>R68/20/21</td>
<td>Harmful: possible risk of irreversible effects through inhalation and in contact with skin</td>
</tr>
<tr>
<td>R68/20/22</td>
<td>Harmful: possible risk of irreversible effects through inhalation and if swallowed</td>
</tr>
<tr>
<td>R68/21/22</td>
<td>Harmful: possible risk of irreversible effects in contact with skin and if swallowed</td>
</tr>
<tr>
<td>R68/20/21/22</td>
<td>Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed</td>
</tr>
<tr>
<td>R42/43</td>
<td>May cause sensitization by inhalation and skin contact.</td>
</tr>
<tr>
<td>R48/20</td>
<td>Harmful: danger of serious damage to health by prolonged exposure through inhalation</td>
</tr>
<tr>
<td>R48/21</td>
<td>Harmful: danger of serious damage to health by prolonged exposure in contact with skin</td>
</tr>
<tr>
<td>R48/22</td>
<td>Harmful: danger of serious damage to health by prolonged exposure if swallowed</td>
</tr>
<tr>
<td>R48/20/21</td>
<td>Harmful: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin</td>
</tr>
<tr>
<td>R48/20/22</td>
<td>Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed</td>
</tr>
<tr>
<td>R48/21/22</td>
<td>Harmful: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed</td>
</tr>
<tr>
<td>R48/20/21/22</td>
<td>Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed</td>
</tr>
<tr>
<td>R48/23</td>
<td>Toxic: danger of serious damage to health by prolonged exposure through inhalation</td>
</tr>
<tr>
<td>R48/24</td>
<td>Toxic: danger of serious damage to health by prolonged exposure in contact with skin</td>
</tr>
<tr>
<td>R48/25</td>
<td>Toxic: danger of serious damage to health by prolonged exposure if swallowed</td>
</tr>
<tr>
<td>R48/23/24</td>
<td>Toxic: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin</td>
</tr>
<tr>
<td>R48/23/25</td>
<td>Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed</td>
</tr>
<tr>
<td>R48/24/25</td>
<td>Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed</td>
</tr>
<tr>
<td>R48/23/24/25</td>
<td>Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed</td>
</tr>
</tbody>
</table>
FAQ

http://jr.chemwatch.net/faq

NOTES
IT'S NOT THE HAZARD
IT'S THE RISK!