

## Finding the Hazard Class for a Chemical

### Instructions for Accessing and Using Chem Gold II MSDS Databases for Purchasing

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#### Introduction

You are required to find the UN Hazard Class for each chemical you are requisitioning. If you are unsure of the UN Hazard Class can for a particular chemical you can find it relatively easily using ChemGold II MSDS database.

Remember that only 3 Hazard Classes will require specific authorisations to purchase and are deemed Highly Hazardous Chemicals

These are:

UN Class 2.3 – toxic gases

UN Class 4.1 – Reactive solids and desensitised explosives

UN Class 6.1, Packing Group 1 – highly acutely toxic compounds

All other Hazard classes will be coded against 775020 – laboratory chemicals

If the compound you are purchasing is toxic but not UN 6.1 Packing Group 1 it is sufficient to put “UN Class 6.1 NOT Packing Group 1”

#### Using ChemGold II

##### Connecting to ChemGold II

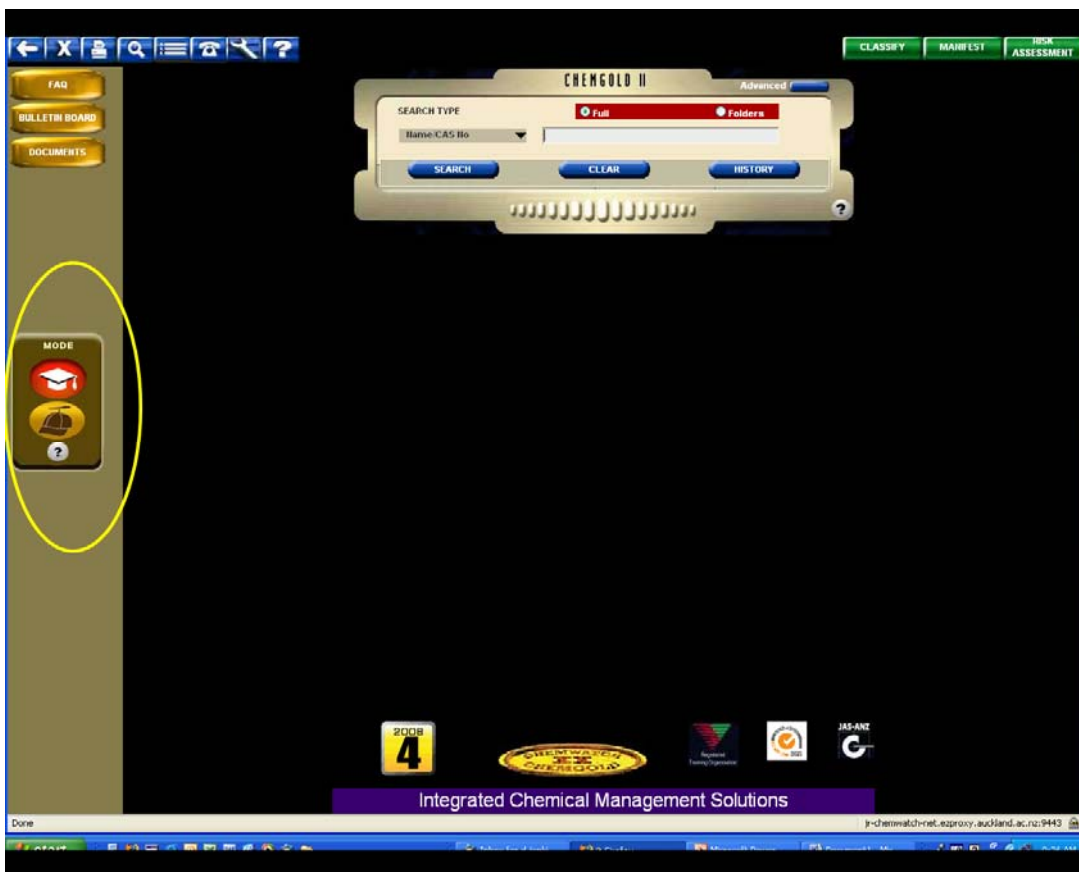
- Access **Library** via University of Auckland Homepage
- Access **Database**
- Select “**C**” and then scroll through databases and select **ChemGold**
- Connect to ChemGold

You will then be linked to a connection to Chem Gold

[Hint: Add Chem Gold Connect Page to Favourites – it is not recommended that you shortcut the Chem Gold site as the library connection may be rerouted without warning]

##### Performing a Search

1. **Select the Academic Icon on the LHS (this will give you greater functionality)** (see picture on following page)



2. Enter the name of the compound you wish to search in the search engine – enter the compound name or name of manufacturer and press **Search**
3. You will then be presented with the results of the search engine screen which will present you with a range of compounds - select the compound descriptor that matches your item

#### Finding UN Hazard Code

The UN Hazard Class (if the compound is considered hazardous under the UN Hazard Classification is given by the term “DG Class” on the second row (middle). If you need to know the degree of hazard then the Packing Group (second Row, RHS) is useful – packing Group 1 is most hazardous and Packing Group 3 is least hazardous.

The picture on the next page shows the relative position of the UN Class and Packing Group on the relevant screen

Ignore the UN Number – these numbers are used only for transport and are not relevant.

Please also note that some compounds will be classified as hazardous under HSNO and not the UN classification. The HSNO classification can be found on this front page just under bar graphs entitled “Chemwatch Hazard Ratings” in a section called “NZ Codes”

**Note that Purchasing protocols only require UN Classification criteria.**

The screenshot displays the Chemwatch MSDS & LABELS interface for Hydrochloric Acid. The page is titled "MSDS & LABELS" and "Summary for HYDROCHLORIC ACID". It includes a sidebar with navigation options like "MINI MSDS", "MSDS", "SUMMARY", "SDS++", "SUPPLIER MSDS", "SECTIONS", "NOTES", "LABELS", "MOLECULE", "MONOGRAPHS", and "ENVIRONMENT". The main content area shows the following information:

- CAS RN: 7647-01-0
- UN NO: 1789
- GHG: DANGER
- HMGN: None
- UN Class: 8
- Packing Group: II
- Hazard Alert Code: EXTREME
- Chemwatch Hazard Ratings: Flammability: 0, Toxicity: 3, Body Contact: 4, Reactivity: 1, Chronic: 2. Legend: Min=0, Low=1, Moderate=2, High=3, Extreme=4.
- NZ Codes: 6.1B 8.1A 8.2B 8.3A 9.1D 9.3C
- NZ Statements: Fatal if swallowed, May be corrosive to metals, Causes severe skin burns and eye damage, Causes serious eye damage, May cause long lasting harmful effects to aquatic life, Harmful to terrestrial vertebrates.
- PERSONAL PROTECTIVE EQUIPMENT FOR INDUSTRIAL/COMMERCIAL ENVIRONMENTS

The page also features a "CHEMWATCH HAZARD RATINGS" bar chart and three hazard icons: Corrosive (8), Toxic (Skull and Crossbones), and Environment (Fish and Dead Tree).

*Note in this case HCL is UN Class 8 indicating it is corrosion hazard. More correctly HCL is UN Class 8, Packing Group II (i.e. it has a medium corrosion hazard).*