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## Chemical storage and labelling

Posted by Anonymous on Thu, 2016-04-28 15:15

Chemical storage and labelling: We are sorting through our toxic chemicals ADG class 6 and are not sure how we should now label and store them according to the GHS. For example, lead acetate which is toxic and a marine pollutant under the ADG still retains the environmental pictogram under the GHS but also now has the chronic health hazard pictogram and the general health hazard pictogram (exclamation mark). Barium carbonate, previously ADG class 6, under the GHS is now regarded as a general health hazard as too is sodium chloride! If we place the GHS labels on our old bottles, then how would you advise that we store these chemicals in our chemical store considering that we use ADG Code class labels for placarding?

### Voting:



Average: 5 (1 vote)

### Laboratory Technicians:

Laboratory Technicians

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## Chemical storage and labelling

Submitted by sat on 03 June 2016

The labelling and storage of chemicals is complex. Transitioning to the GHS and the existence of other labelling requirements adds to this complexity.

## Labelling

Under the GHS, toxic chemicals are identified with the pictograms GHS06 (skull and crossbones), GHS08 (health hazard) and GHS07 (exclamation mark) according to the nature and degree of the hazard presented. As there is not a perfect correlation of the GHS classifications with Dangerous Goods (DG) class 6.1, the DG skull and crossbones diamond cannot be applied to the labels of all toxic chemicals. It can only replace the GHS06 (skull and crossbones) pictogram.

## Storage

**Toxic chemicals should be stored securely and segregated from incompatible chemicals so as to prevent dangerous reactions.** All chemicals used for science in schools should be stored in a secure chemical storeroom, in which case there would be no additional requirement for further security. Science ASSIST recommends that toxic chemicals be stored along with general (hazardous and non-hazardous) chemicals on shelves in the chemical storeroom, taking into consideration any further DG classification.

Toxic chemicals with Class 6.1 as the primary DG class may also have a subsidiary risk of one of the DG Classes 3, 4, 5 or 8; or, a chemical may have another primary DG class and Class 6.1 as the subsidiary risk. If a Class 6.1 chemical has another DG classification, then this classification needs to be considered.

**DG Class 6.1, no other DG classification:** If a chemical is classified as DG Class 6.1 as its only DG class, then it may be stored with general inorganic or organic chemicals. For example:

- barium chloride, DG Class 6.1: may be stored with general inorganic chemicals
- methyl orange, DG Class 6.1: we recommend storage with other indicators and dyes

**DG Class 6.1 and another DG classification:** If a chemical belongs to a DG Class additional to Class 6.1, either as the primary or a subsidiary class, then this classification needs to be considered.

For example:

- methanol, DG class 3(6.1): store with Class 3 Flammable liquids
- iodine, DG class 8(6.1): store with Class 8 Corrosives (solids)
- potassium dichromate, DG class 6.1(5.1): store with Class 5.1 Oxidising substances
- sebacyl chloride, DG class 8(6.1): store with Class 8 Corrosives (liquids)

**Segregation of toxic chemicals:** Schools are unlikely to have sufficient quantities of toxic chemicals to require segregation of them in a designated toxic substances cabinet. However, if the chemicals are not stored securely and can be accessed by students or unauthorised staff, then we recommend storing the toxic substances in a separate lockable cabinet.

**Lead acetate:** This chemical is not included in our [List of recommended chemicals for science in Australian schools](#). If your school chooses to have this chemical, then as it is classified as DG class 6.1, it may be stored with general inorganic chemicals.

**Barium carbonate:** In the Australian Dangerous Goods (ADG) Code, barium carbonate is not listed specifically. It is classified in the generic category of Barium compounds N.O.S. ('Not Otherwise Specified'). The ADG Code is designed to ensure the safe transport of chemicals, whereas the GHS classification of chemicals is concerned with the safe handling of chemicals. Therefore, although barium carbonate may be classified as DG Class 6.1, under the GHS classification, which is specific for the individual chemical, barium carbonate does not meet the criteria for Acute toxicity Category 1 or 2, which would require it to be labelled with the GHS06 pictogram. Note that it is a scheduled poison S6, but as barium carbonate does not have any other DG classification, it therefore can be stored with general inorganic chemicals.

**Sodium chloride:** This chemical has no DG classification and should be stored with general inorganic chemicals

### **Additional information**

[AIS: Labels for school science chemicals](#)

[List of recommended chemicals for science in Australian schools](#).

We are currently developing a detailed information sheet on this topic and will edit this answer and provide a link to the information sheet when it is available.

### **References**

Labelling of workplace hazardous chemicals'. Safe Work Australia Website.  
<http://www.safeworkaustralia.gov.au/sites/swa/whs-information/hazardous-chemicals/labelling/pages/labelling>

'Lead acetate', Safety Data Sheet, Chem-Supply website,  
<https://www.chemsupply.com.au/documents/LA0301CH3O.pdf> (August 2011)

'Barium carbonate' Safety Data Sheet, Chem-Supply website,  
<https://www.chemsupply.com.au/documents/BA0351CHAP.pdf> (March 2012)

## **Chemical storage and labelling**

Submitted by nehal.trivediasta on 29 April 2016

Hi Kategi,

It is a very good question and we need to find out the answer from the experts.

I had the same question and I tried to find the answer and one close answer (but not complete

and clear about the storage) found on safe work australia on  
<http://www.safeworkaustralia.gov.au/sites/swa/whs-information/hazardous-...>

on this page 4th question says-

*Does the GHS replace the ADG Code?*

*No. You must continue to comply with the ADG Code and relevant state and territory transport laws for the transport of dangerous goods by road and rail. When in the workplace however, dangerous goods must meet the labelling requirements prescribed under the WHS Regulations. See further information on labelling.*

Expert answer from ASSIST will be definitely helpful to all users looking for this answer.

With regards

Nehal Trivedi

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