













Chemical Management




Dangerous Goods

Dangerous Goods Class	Storage Measures	Segregation	Handling & Transport	Maximum Quantities
Class 1 	Explosives <i>Permit Required</i>	<i>Not permitted in laboratories</i>	<i>Authorised persons only</i>	<i>Not applicable</i>
Class 2.1 	Flammable Gases <i>Regulator required</i> <i>Secure with a chain or strap 3 m from ignition sources</i> <i>Vent exhaust lines to hoods</i>	<i>Do not store lying down</i> <i>Do not store within 3m Oxygen</i>	<i>Trolley to carry cylinder</i>	<i>Only cylinders in use-connected to equipment or instruments</i> <i>Secured in external gas store and piped in to the lab</i>
Class 2.2 	Non Toxic Non Flammable Gases <i>Regulator required</i> <i>Secured with chain or strap</i>	<i>Do not store lying down</i> <i>Vent exhaust lines to hoods</i>	<i>Trolley to carry cylinder</i>	<i>Only cylinders in use-connected to equipment or instruments</i>
	Cryogenic liquids <i>Oxygen monitoring of storage area</i> <i>Vent exhaust away from users</i>	<i>Store in well ventilated areas</i> <i>Domestic vacuum flasks are not be used</i>	<i>Trolley for over 10 lt</i> <i>Carriers must be spill and Break proof</i>	<i>Max container 250lt</i> <i>Greater if oxygen monitoring device is fitted</i>
Class 2.3 	Toxic Gases <i>Regulator required</i> <i>Secured with chain or strap</i> <i>Vent exhaust lines to hoods</i>	<i>Do not store lying down</i>	<i>Trolley to carry cylinder</i>	<i>Only cylinders in use-connected to equipment or instruments</i> <i>Should be secured in external gas store and piped in to the lab if possible</i>
Class 3 	Flammable Liquid <i>Labeled standard lab cupboard or in small amounts through out the lab</i> <i>Consult AS1940 or AS3833 for alternative storage methods</i>	<i>Segregate from materials: at least 1 m from other classes in a cabinet or cupboard in spill tray</i> <i>Do not refrigerate unless fridge is intrinsically safe a sealed container</i>	<i>Carriers for 2.5 lt quantities:</i>	<i>Max size: 5 lt container</i> <i>Up to 10 lt per 50 m² of lab floor space</i>
Class 4.1 	Flammable Solid <i>Keep away from moisture</i> <i>Store as per suppliers instructions</i> <i>Consult AS2714 or AS3833 for alternative storage methods</i>	<i>Segregate from materials at least 1 m from other classes in a sealed container</i>	<i>Double contain glass containers</i> <i>Avoid contact with skin</i>	<i>Max size: 10 lt container</i> <i>Up to 10 lt per 50 M² of lab floor space</i> <i>*Note 1</i>

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Class 4.2 	Spontaneously Combustible Will ignite in contact with air or water Consult AS2714 or AS3833 for alternative storage methods	Segregate from materials at least 1 m from other classes in a sealed container	Double contain glass containers Avoid contact with skin	Max size: 10 lt container Up to 10 lt per 50 M ² of lab floor space *Note 1
Class 4.3 	Dangerous When Wet Store under oil or inert gas Consult AS2714 or AS3833 for other storage methods Keep away from moisture	Segregate from all other materials at least 1 m from all other classes in a sealed container	Double contain glass containers Avoid contact with skin	Max size: 10 lt container Up to 10 lt per 50 M ² of lab floor space *Note 1
Class 5.1 	Oxidising Agent Do not store with Class 3 & 4. Consult AS2714 or AS3833 for other storage methods	Segregate from materials at least 1 m from other classes in a sealed container	Double contain glass containers Avoid contact with skin	Max size: 10 lt container Up to 10 lt per 50 M ² of lab floor space *Note 1
Class 5.2 	Organic Peroxide Do not store with Class 3 & 4 Consult AS2714 or AS3833 for other storage methods	Segregate from materials at least 1 m from other classes in a sealed container	Double contain glass containers Avoid contact with skin	Max size: 10 lt container Up to 10 lt per 50 M ² of lab floor space *Note 1
Class 6 	Toxic Solids Closed containers only Consult AS2714 or AS3833 for other storage methods	Segregated from all liquids - at least 1 m distance -, in a sealed container	Double contain glass containers Carrier for liquids (2.5lt) Avoid contact with dust / liquid	Max size: 10 lt container for PG I, other PG 50lt per 50 M ² of lab floor space Max of 50lt per 50 M ² of lab floor space *Note 2
	Toxic Liquids Closed containers only Consult AS4452 or AS3833 for other storage methods	Segregate by 1 m from: Class 3 flammable liquids Class 5 oxidisers & peroxides Solids of all classes	Double contain glass containers Carrier for liquids (2.5lt) Avoid contact with dust / liquid	Max size: 10 lt container for PG I, other PG 50lt per 50 M ² of lab floor space Max of 50lt per 50 M ² of lab floor space *Note 2
Class 6 	Infectious Materials Laboratory must be signed Store area must be signed	Segregate from all other classes of materials - in a sealed container	Double contain infectious items Carrier for liquids (2.5lt) Avoid contact with dust / liquid	Max size: 5 lt container for liquids, 20 lt for solids

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Class 7 	Radioactive Materials <i>Laboratory must be signed. Store area must be signed. Monitoring must be conducted. Results to be recorded.</i>	<i>Segregate from materials by at least 1 m distance in a sealed container.</i>	<i>Store in appropriate container:</i> - Lead - Perspex - Other – as stipulated	<i>As per licence or permit</i>
Class 8 	Corrosives: Acids <i>Avoid interaction with alkalis. Consult AS3780 or AS3833 for alternative storage methods.</i>	<i>Segregate by 1 m from: Class 3 flammable liquids, Class 5 oxidisers & peroxides and all solids and liquids.</i>	<i>Carriers for 2.5 lt quantities. Wear gloves as specified.</i>	<i>Max size: 20 lt container. Up to 20 lt per 50 m² of lab floor space for liquids. Up to 50 lt per 50 m² of lab floor space for solids.</i>
	Corrosives: Alkalis <i>Avoid interaction with acids. Consult AS3780 or AS3833 for other storage methods.</i>	<i>Segregate by 1 m from: Class 3 flammable liquids, Class 5 oxidisers & peroxides.</i>	<i>Carriers for 2.5 lt quantities. Wear gloves as specified.</i>	<i>Max size and quantities as per acids above.</i>
Class 9 	Miscellaneous <i>Avoid interaction with incompatible chemicals. Consult AS4681 or AS3833 for alternative storage methods.</i>	<i>Segregate by packaging only.</i>	<i>As per specifications on product. Avoid contact with skin.</i>	<i>Max size: 5 lt container for liquids, 20 lt for solids. Up to 50 lt per 50 m² of lab floor space for liquids. Up to 100 lt per 50 m² of lab floor space for solids.</i>

The maximum aggregate quantity of mixed dangerous goods in a lab is 200kg/litres. Source AS 2243.10

HAZARDOUS SUBSTANCES

Harmful / Toxic	Corrosive	Irritant / Sensitiser	Carcinogenic	Mutagenic / Teratogenic
Illness or deterioration of health	Tissue damage from burns	Allergic reactions. Increases reaction to other chemicals	Tumour growth in target organs	Alter genetic information

AS 2243.10 assigns a package size limit of 5 litres for liquids and 20 litres for solids. All designated hazardous substances must be used in ways that reduce the production of aerosols or dusts. Staff and students using hazardous substances must be made aware of their hazardous nature, and be provided with appropriate personal protective equipment:

DRUGS AND POISONS

POISONS SCHEDULE	2 & 3	4	5 & 6	7, 8, & 9
STORAGE REQUIREMENTS	Poisons permit required. Keep out of reach of children	Poisons Permit Required – store under lock and key at all time	Poisons permit not required if the organization is a research or teaching organization. Potential to do harm. No specific storage requirements	Poisons Permit Required – Drug of Addiction Cabinet & Book

Note 1 For Classes 4.1, 4.2, 4.3, 5.1 and 5.2 there may be up to 10 kgs/lts of any 1 class but the aggregate of all these classes is not to exceed 20 kgs/lts for each 50 m² of lab floor space.

Note 2 PG I means Packaging Group 1. Dangerous Goods are assigned a PG according to the level of hazard associated with the substance. PG I is of the greatest danger, PG II is medium level danger and PG III is of least danger. The PG must be included on the MSDS if the chemical is a Dangerous Good.