

HEALTH & SAFETY

CHEMICAL STORAGE AND HANDLING FOR MINOR QUANTITIES IN LABORATORIES

DANGEROUS GOODS				DANGEROUS GOODS			
Dangerous Goods Class	Storage & Segregation	Handling, Transport & Disposal	Maximum Quantities	Dangerous Goods Class	Storage & Segregation	Handling, Transport & Disposal	Maximum Quantities
Flammable Gas FLAMMABLE GAS 2	Only cylinders in use Secure with chain or strap away from ignition sources Vent exhaust lines to hoods AS/NZS 2243.10, AS 4332 and AS/NZS 3833	Use cylinder trolley to move cylinder Disposal Method 1	Only cylinders in use: connected to equipment or instruments; or secured in external gas store and piped into the lab	Oxidising Agent OXIDIZING AGENT 5.1	 Do not store with Class 3 or 4 Segregate from other classes in a sealed container in a spill tray AS/NZS 2243.10, AS 4326 and AS/NZS 3833 	Double-pack glass containers Avoid contact with skin Disposal Method 2	Maximum quantity (see Note 3): 10 L container 10 L per 50 m² of lab floor space See also Note 1
Class 2.1 Non-Toxic Non- Flammable Gas/ Cryogenic Liquid	Non-Toxic Non-Flammable Gas Only cylinders in use Secured with chain or strap Vent exhaust lines to hoods AS/NZS 2243.10, AS 4332 and AS/NZS 3833	Use cylinder trolley to move cylinder Disposal Method 1	Only cylinders in use: connected to equipment or instruments	Organic Peroxide ORGANIC PEROXIDE 5.2	Do not store with Class 3 or 4 Segregate from other classes in a sealed container in a spill tray AS/NZS 2243.10, AS 2714 and AS/NZS 3833	Double-pack glass containers Avoid contact with skin Disposal Method 2	Maximum quantity (see Note 3):
NON-FLAMMABLE NON-TOXIC GAS 2	Cryogenic Liquid Vent exhaust away from users Store in well-ventilated areas AS/NZS 2243.10, AS 1894 and AS/NZS 3833	Use cylinder trolley to move cylinders over 10 L Carriers must be spill and breakproof Domestic vacuum flasks are not be used Disposal Method 1	Maximum quantity:	Class 5.2 Toxic	Closed containers only Segregate from other classes in a sealed container in a spill tray AS/NZS 2243.10, AS/NZS 4452 and AS/NZS 3833	Double-pack glass containers Carrier for solids greater than 2.5 kg Avoid contact with dust or liquid Disposal Method 2	Maximum quantity for PG I (see <i>Note 3</i>): 10 kg container 10 kg per 50 m² of lab floor space Maximum quantity for PG II and PG III (see <i>Note 3</i>): 20 kg container 50 kg per 50 m² of lab floor space
Toxic Gas Toxic Gas	Only cylinders in use Secured with chain or strap Vent exhaust lines to hoods AS/NZS 2243.10, AS 4332 and AS/NZS 3833	Use trolley to carry cylinder Disposal Method 1	Only cylinders in use: connected to equipment or instruments; or secured in external gas store and piped into the lab	TOXIC	Toxic Liquids Closed containers only Segregate from other classes in a sealed container in a spill tray AS/NZS 2243.10, AS/NZS 4452 and AS/NZS 3833	Double-pack glass containers Carrier for liquids greater than 2.5 L Avoid contact with dust or liquid Disposal Method 2	See also Note 2 Maximum quantity for PG I (see Note 3): 10 L container 10 L per 50 m² of lab floor space Maximum quantity for PG II and PG III (see Note 3): 20 L container 50 L per 50 m² of lab floor space
Flammable Liquid FLAMMABLE LIQUID 3	Labelled standard lab cupboard, or small amounts throughout lab Do not refrigerate unless fridge is intrinsically safe (a sealed container) Segregate from other classes in a spill tray in a cabinet or cupboard AS/NZS 2243.10, AS 1940	Carriers for 2.5 L quantities Disposal Method 2	Maximum quantity (see <i>Note 3</i>):	Infectious Substance INFECTIOUS SUBSTANCE 6	Laboratory must be signed Store area must be signed Segregate from other classes in a sealed container AS/NZS 3816	Double-pack infectious items Carrier for liquids (2.5 L) Avoid contact with dust or liquid Disposal Method 2	See also Note 2 Maximum Quantity:
Flammable Solid FLAMMABLE SOLID Class 4.1	and AS/NZS 3833 • Keep away from moisture • Store as per supplier's instructions • Segregate from other classes in a sealed container in a spill tray • AS/NZS 2243.10, AS/NZS 5026 and AS/NZS 3833	Double-pack glass containers Avoid contact with skin Disposal Method 2	Maximum quantity (see <i>Note 3</i>): - 10 L container - 10 L per 50 m² of lab floor space See also <i>Note 1</i>	Radioactive RADIOACTIVE 7 Class 7	Laboratory must be signed Store area must be signed Monitoring must be conducted Results to be recorded Segregate from other materials by at least 1 m in a sealed container AS 2243.4	Store in appropriate container: lead perspex other – as stipulated Disposal Method 4	Maximum quantity: as per management licence
Spontaneously Combustible SPONTANEOUSLY COMBUSTIBLE 4	Will ignite in contact with air or water Segregate from other classes in a sealed container in a spill tray AS/NZS 2243.10, AS/NZS 5026 and AS/NZS 3833	Double-pack glass containers Avoid contact with skin Disposal Method 2	Maximum quantity (see <i>Note 3</i>): - 10 L container - 10 L per 50 m² of lab floor space See also <i>Note 1</i>	Corrosive	Acids Avoid interaction with alkalis Segregate organic and mineral acids AS/NZS 2243.10, AS 3780 and AS/NZS 3833 Alkalis Avoid interaction with acids AS/NZS 2243.10, AS 3780 and AS/NZS 3833	Carriers for 2.5 L quantities Wear gloves as specified Disposal Method 3 Carriers for 2.5 L quantities Wear gloves as specified Disposal Method 3 Disposal Method 3	Maximum quantity (see Note 3):
Class 4.2				Class 8			floor space for solids
Dangerous When Wet DANGEROUS WHEN WET Class 4.3	Store under oil or inert gas Keep away from moisture Segregate from all other classes by at least 1 m, in a sealed container AS/NZS 2243.10, AS/NZS 5026 and AS/NZS 3833	 Double-pack glass containers Avoid contact with skin Disposal Method 2 	Maximum quantity (see Note 3):	Miscellaneous MISCELLANEOUS DANGEROUS GOODS 9 Class 9	Avoid interaction with incompatible chemicals AS/NZS 2243.10, AS/NZS 4681 and AS/NZS 3833	 As per specifications on product Avoid contact with skin Disposal Method 2 	 Maximum quantity for liquids (see Note 3): 5 L container 50 L per 50 m² of lab floor space Maximum quantity for solids (see Note 3): 20 kg container 100 kg per 50 m² of lab floor space

The capacity of any chemical storage cabinet used in a laboratory to store chemicals of Classes 4.1, 4.2, 4.3, 5.1 or 5.2 shall not exceed 50 L. For all other chemicals, the capacity shall not exceed 250 L.

Note 1: For Classes 4 and 5 there may be up to 10 kg or L of any single class, but the aggregate of all these classes is not to exceed 20 kg or L for each 50 m² of lab floor space.

Note 2: Dangerous goods are assigned a packing group (PG) according to the level of hazard associated with the substance. PG I is the highest risk, PG II is a medium risk and PG III is of least risk. The PG must be included on the SDS if the chemical is a dangerous good. DISPOSAL METHODS

Note 3: Where the chemical is stored other than a chemical storage cabinet (eg on the bench).

HAZARDOUS SUBSTANCES					
Harmful/Toxic	Disposal Method 1				
Corrosive	Disposal Method 1				
Irritant/Sensitiser	Disposal Method 1				
Carcinogenic	Disposal Method 4				
Mutagenic/Teratogenic	Disposal Method 4				
AC (AUTC 22.42.40					

AS/NZS 2243.10 assigns a package size limit of 5 L for liquids and 20 L for solids. .

Disposal Method 2 Disposal Method 4
Disposal Method 4
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Disposal Method 4

DIST COAL METHODS						
Disposal Method 1						
Return to supplier						
Disposal Method 2						
Use University-preferred waste disposal contractor						
Disposal method 3						
Neutralise and let stand overnight						
• Check pH – if between 6 and 10, pour down sink, else repeat						
Disposal Method 4						
Contact your local Health and Safety Business						
Partner or hazardouswaste-info@ unimelb.edu.au						

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