Safe Method of Use for Class 6.3 to 6.9, Chronic Toxicity

A. Classification (these substances are Very High Hazard)

A chronic hazard is presented by a chemical that has the potential to cause long term damage to health, often as a consequence of repeated or prolonged exposure to it. Chronic hazards are grouped together, as methods of control and treatment following exposure differs from acute hazards. In some circumstances, skin and eye Irritants may have more acute than chronic effects. Formalin is also an acute toxin

GHS Code	Examples
6.3 Skin Irritant	Kerosene, organic solvents
6.4 Eye Irritant	Ammonium persulfate
6.5 Sensitiser (respiratory and contact)	Chromium acid, dipotassium salt, Formaldehyde
6.6 Mutagens	Lead Nitrate
6.7. Carcinogen	Napthalene
6.8 Reproductive/Developmental	Cyclohexanol
6.9 Target Organ Systemic	Ethanol

You ***MUST*** consult Safety data Sheets (SDS) for details specific to the substance in use.

B. Incompatibilities

- HSNO Class 6 substances ***shall not*** be stored with any HSNO Class 1, Class 2, Class 3, Class 5 or Class 8 substances

C. Storage

- Any secondary containers for HSNO Class 6.31A to 6.9A substances ***shall*** be marked with Class 6.1 “Toxic” icon.

- Areas of containment (including under–bench cupboards) shall be marked with toxic substances icon

- Containers of Class 6.3A to 6.9.A substances shall be stored on impervious surfaces.

D. Storage - Limits on Storage Time

- Containers ***shall*** be checked annually to ensure they are not leaking and are in good condition and labels are intact and legible.

F. Use of Class 6 substances

The Authorised User undertaking any procedure that uses Class 6.3 to 9 substances ***SHALL*** ensure:

- all other persons in the laboratory are informed of the nature of the hazard and any required control measures. In particular, ensure that women of childbearing age know the control measures required to minimise exposure to Class 6.8 (reproductive/developmental) or 6.6 (mutagens) substances.
- the availability of appropriate protective equipment, (glove type, respirator and lab coat, fumehood) before work commences.
- that appropriate personal protective equipment is worn
- that persons have the appropriate training (First Aid) are on hand
- that appropriate back up procedures are in place and tested before the work begins.
- that all appropriate antidotes are present on site in sufficient quantity.
- procedures where vapour, mist or gaseous hazards may be present ***shall*** be performed in an approved fumehood

G. Personal Protective Equipment (PPE) for Handling HSNO 6.3-6.9 substances

- Care ***shall*** be taken to ensure gloves of appropriate material are used when handling toxic substances.
- The primary barrier ***shall*** be the use of a tested and certified fume hood to extract toxic vapour, mist or gas away from laboratory workers

H. Toxicity of Class 6 substances

Short term or brief exposure to low concentrations of substances known to cause chronic effects is unlikely to have long term consequences. (e.g. “twenty cigarettes at age 14 does not guarantee lung cancer at age 40”). Nevertheless, every effort should be made to minimise exposures. Consult MSDS sheets for details specific to the compound in use.

I. Disposal

- HSNO Class 6.3-6.9 substances ***shall only*** be disposed of via the chemical waste room (TTR007). Refer to information on the SBS resources page for information on appropriate containers and labelling for waste solvents. If in doubt, contact your lab manager.

J. Spills

- **Minor spills** – ***shall*** be cleaned up immediately using the spill kits present in the laboratory

- Extinguish all sources of ignition
- Use correct gloves
- For solids and liquids - Use absorbent material in spill kits to wipe up solvent – wiping from outside of spill toward centre. Place used absorbent material in impermeable/airtight container made of material suitable to contain the hazardous waste.
- Inform Laboratory Manager and arrange for immediate disposal.
- For gases and vapours, provide ventilation where feasible
- If a staff member fill out an incident/accident report. If a student, ask your supervisor fill out the online incident/accident report on your behalf.

- **Major spills** –

- Extinguish all sources of ignition and clear area immediately.
- If required provide first-aid to any affected individuals.
- Close all doors to laboratory and prevent re-entry until 'all-clear' is given
- Call fire brigade and campus care immediately.
- Inform Laboratory Manager and/or arrange for SDS to be made available to emergency services.
- Prepare to evacuate building

K. Poisonings

- Largely dependent on the species of chemical in use and type of exposure, refer to specific SDS

- For most poisoning, use copious quantities of tepid water for surface exposures; however some substances require special treatment.

- In all cases seek medical help.

L. Emergency Contacts

In an emergency

- Call Campus Security on 8888 (0800 842 8888) or (04) 463 9999 giving location and substance details
- For emergency services call: 111

New Zealand Poisons Centre: 0800 764 766