SAFETY DATA SHEET

PRODUCT NAME: ZINC CHLORIDE

Issue Date: May 23

IDENTIFICATION

Product Name: Zinc Chloride
Other Names: Butter of Zinc, Zinc Butter, Zinc Dichloride
Product Code: ZZCHLO
Uses: Catalyst, dehydrating and condensing agent in organic synthesis, fireproofing and preserving food, soldering fluxes, burnishing and polishing compounds for steel, electroplating, antiseptic and deodorant preparations (up to 2% solution), textiles mordant: carbonizing agent; mercerising, sizing and weighting compositions, resist for sulphur colours, albumin colours and parchment, embalming and taxidermists; fluids, medicine (astringent), antistatic, denaturing for alcohol.
Supplier: HamChem Hamilton Chemicals Ltd, 75 Ruffell Rd, Hamilton
Phone: 079744971, Fax 078475882, info@hamchem.nz

- **In emergency dial 111, and then ask for Fire, Ambulance or Police as necessary.**
- **In case of poisoning phone National Poisons Centre – 0800 764 766**

HAZARD IDENTIFICATION

GHS Classifications
Corrosive to Metals – Category 1
Acute Toxicity (Oral) – Category 3
Skin Corrosion – Category 1C
Serious Eye Damage – Category 1
Hazardous to the Aquatic Environment (Acute) – Category 1
Hazardous to the Aquatic Environment (Chronic) – Category 1

Signal Word: DANGER

Hazard Statements

H290	May be corrosive to metals.
H301	Toxic if swallowed.
H410	Very toxic to aquatic life with long-lasting effects
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage

Prevention

P234	Keep only in original packaging
P264	Wash hands thoroughly after handling
P260	Do not breathe dusts or mists
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/clothing and eye/face protection.

Response

P390 Absorb spillage to prevent material damage
P301+P310 IF SWALLOWED: Immediately call a POISON CENTRE or Doctor. Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P363 Wash contaminated clothing before reuse
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
P310 Immediately call a POISON CENTRE or Doctor
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE or Doctor
P391 Collect spillage

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container to approved waste facility in accordance with local regulations.

COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportion (%)
Zinc Chloride	7646-85-7	>98

FIRST AID MEASURES

For advice, contact a Poisons Information Centre (Phone New Zealand 0800 764 766) or a doctor.

Inhalation: If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor. Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema. Corrosive substances may cause lung damage (e.g., lung oedema, fluid in the lungs). As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested. Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered.

Skin Contact: Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing, including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.
Transport to hospital, or doctor.

Eye Contact: Immediately hold eyelids apart and flush the eye continuously with running water.
Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Ingestion: For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay.

Medical attention and special treatment: Absorption of zinc compounds occurs in the small intestine. The metal is heavily protein bound. Elimination results primarily from faecal excretion. The usual measures for

decontamination (Ipecac Syrup, lavage, charcoal or cathartics) may be administered, although patients usually have sufficient vomiting not to require them.
CaNa2EDTA has been used successfully to normalise zinc levels and is the agent of choice.

FIRE FIGHTING MEASURES

Extinguishing media: Water spray or fog. Foam. Dry chemical powder. BCF (where regulations permit).

Special hazards arising from the substrate or mixture: Fire Incompatibility - None known.

Fire Fighting: Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use firefighting procedures suitable for surrounding area.

Fire/Explosion Hazard: Non-combustible. Not considered to be a significant fire risk. Acids may react with metals to produce hydrogen, a highly flammable and explosive gas. Heating may cause expansion or decomposition leading to violent rupture of containers.

Hazardous decomposition products: hydrogen chloride, metal oxides.

ACCIDENTAL RELEASE MEASURES

Minor Spills: Remove all ignition sources. Clean up all spills immediately. Avoid contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material. Check regularly for spills and leaks.

Major Spills: Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course.

HANDLING & STORAGE

Safe handling: Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Avoid contact with moisture. Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers.

Suitable container: DO NOT use aluminium or galvanised containers. Check regularly for spills and leaks. Glass container is suitable for laboratory quantities. Lined metal can, lined metal pail/ can. Plastic pail. Polyliner drum. Packing as recommended by manufacturer. For low viscosity materials - Drums and jerricans must be of the non-removable head type. Where a can is to be used as an inner package, the can must have a screwed enclosure. For materials with a viscosity of at least 2680 cSt. (23 deg. C) and solids (between 15 C deg. and 40 deg C.): Removable head packaging; Cans with friction closures and low-pressure tubes and cartridges may be used.

Storage incompatibility: Zinc chloride reacts with water forming an acidic solution (pH about 4); zinc oxychloride may be formed with large amounts of water reacts violently with strong bases, potassium attacks metals as fume or in the presence of moisture. Inorganic acids are generally soluble in water with the release of hydrogen ions. The resulting solutions have pH's of less than 7.0. Inorganic acids neutralise chemical bases (for example: amines and inorganic hydroxides) to form salts – neutralisation can generate dangerously large amounts of heat in small spaces. The dissolution of inorganic acids in water or the dilution of their concentrated solutions with additional water may generate significant heat. Hydrogen chloride reacts strongly with strong oxidisers (releasing chlorine gas), acetic anhydride, caesium cyanotridecahydrodecaborate(2-), ethylidene difluoride, hexalithium disilicide, metal acetylide, sodium, silicon dioxide, tetraselenium tetranitride, and many organic materials is incompatible with alkaline materials, acetic anhydride, acetylides, aliphatic amines, alkanolamines, alkylene oxides, aluminium, aluminium-titanium alloys, aromatic amines, amines, amides, 2-aminoethanol, ammonia, ammonium hydroxide, borides, calcium phosphide, carbides, carbonates, cyanides, chlorosulfonic acid, ethylenediamine, ethyleneimine, epichlorohydrin, formaldehyde, isocyanates, metals, metal oxides, metal hydroxides, metal acetylides, metal carbides, oleum, organic anhydrides, potassium

permanganate, perchloric acid, phosphides, 3-propiolactone, silicides, sulfides, sulfites, sulfuric acid, uranium phosphide, vinyl acetate, vinylidene fluoride attacks most metals forming flammable hydrogen gas, and some plastics, rubbers and coatings reacts with zinc, brass, galvanised iron, aluminium, copper and copper alloys
WARNING: Avoid or control reaction with peroxides. All *transition meta*l peroxides should be considered as potentially explosive. For example transition metal complexes of alkyl hydroperoxides may decompose explosively. The pi-complexes formed between chromium(0), vanadium(0) and other transition metals (haloarene-metal complexes) and mono-or poly-fluorobenzene show extreme sensitivity to heat and are explosive. Metals and their oxides or salts may react violently with chlorine trifluoride and bromine trifluoride. These trifluorides are hypergolic oxidisers. They ignite on contact (without external source of heat or ignition) with recognised fuels - contact with these materials, following an ambient or slightly elevated temperature, is often violent and may produce ignition. The state of subdivision may affect the results. Reaction with potassium may be explosive.

EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure standards:

	TWA	STEL	PEAK
Zinc chloride fume	1 mg/m3	2 mg/m3	Not Available
Hydrogen chloride	Not Available	Not Available	5 ppm / 7.5 mg/m3

Emergency limits:

	TEEL-1	TEEL-2	TEEL-3
Zinc chloride	2 mg/m3	800 mg/m3	4,800 mg/m3
Hydrogen chloride; (Hydrochloric acid)	Not Available	Not Available	Not Available

Engineering controls: Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.
The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

Personal protective equipment:
Eye and face protection: Chemical goggles. Full face shield may be required for supplementary but never for primary protection of eyes. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.

Hands/feet protection: Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g., Rubber. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.
Personal hygiene is a key element of effective hand care.

Other protection: Overalls. PVC Apron. PVC protective suit may be required if exposure severe. Eyewash unit.

Respiratory protection
Type B-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent). Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option). Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended. Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a

complete respiratory protection program. Use approved positive flow mask if significant quantities of dust becomes airborne. Try to avoid creating dust conditions.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	White, odourless deliquescent crystals; soluble in water. No odour. Freely soluble in acetone, hydrochloric acid, alcohol and glycerol. Available as granules, lump and sticks.
Physical state	Divided Solid
Relative density (Water = 1)	2.91
Odour	Not Available
Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available
Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Applicable
Decomposition temperature	Not Applicable
Melting point / freezing point (°C)	290
Viscosity (cSt)	Not Applicable
Initial boiling point and boiling range (°C)	732
Molecular weight (g/mol)	136.3
Flash point (°C)	Not Applicable
Taste	Not Available
Evaporation rate	Not Applicable
Explosive properties	Not Available
Flammability	Not Applicable
Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable
Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Applicable
Volatile Component (%vol)	Not Applicable
Vapour pressure (kPa)	Not Applicable
Gas group	Not Available
Solubility in water	Miscible
pH as a solution (1%)	4 approx
Vapour density (Air = 1)	Not Applicable
VOC g/L	Not Available

STABILITY & REACTIVITY

Chemical stability: Contact with alkaline material liberates heat.

Conditions to avoid: Avoid exposure to heat. Avoid dust generation. Avoid exposure to moisture.

Incompatible materials: Incompatible with potassium and metals.

Hazardous decomposition products: Oxides of zinc. Hydrogen chloride.

Hazardous reactions: Hazardous polymerisation will not occur. Deliquescent. Corrosive to metals.

TOXICOLOGICAL INFORMATION

Toxicity data:

Zinc Chloride	Dermal (rat) LD50: >2000 mg/kg
	Oral (rat) LD50: 350 mg/kg
Hydrogen Chloride	Dermal (rabbit) LD50: >5010 mg/kg
	Inhalation (rat) LC50: 780.108879 mg/l/1h
	Oral (rat) LD50: =700 mg/kg

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ZINC CHLORIDE
The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
Mutation DNA Damage Human. Equivocal tumorigenic agent by RTECS criteria.

ZINC CHLORIDE & HYDROGEN CHLORIDE
The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.

Information on toxicological effects
Inhaled
The material is not thought to produce adverse health effects following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled. If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures. Hydrogen chloride (HCl) vapour or fumes present a hazard from a single acute exposure. Exposures of 1300 to 2000 ppm have been lethal to humans in a few minutes. Inhalation of HCl may cause choking, coughing, burning sensation and may cause ulceration of the nose, throat and larynx. Fluid on the lungs followed by generalised lung damage may follow. Corrosive acids can cause irritation of the respiratory tract, with coughing, choking and mucous membrane damage. There may be dizziness, headache, nausea and weakness. Inhalation may cause sore throat and coughing.

Ingestion
Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion. Soluble zinc salts produce irritation and corrosion of the alimentary tract with pain, and vomiting. Death can occur due to insufficiency of food intake due to severe narrowing of the oesophagus and pylorus. Ingestion of acidic corrosives may produce burns around and in the mouth, the throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be evident.

Skin Contact
The material can produce chemical burns following direct contact with the skin. Skin contact is not thought to produce harmful health effects (as classified under EC Directives using animal models). Systemic harm, however, has been identified following exposure of animals by at least one other route and the material may still produce health damage following entry through wounds, lesions or abrasions. Skin contact with acidic corrosives may result in pain and burns; these may be deep with distinct edges and may heal slowly with the formation of scar tissue. Solution of material in moisture on the skin, or perspiration, may markedly increase skin corrosion and accelerate tissue destruction. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Eye
The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage. Direct eye contact with acid corrosives may produce pain, tears, sensitivity to light and burns. Mild burns of the epithelia generally recover rapidly and completely.

Chronic
Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis, caused by particles less than 0.5 micron penetrating and remaining in the lung. Repeated or prolonged exposure to acids may result in the erosion of teeth, swelling and/or ulceration of mouth lining. Irritation of airways to lung, with cough, and inflammation of lung tissue often occurs. Chronic minor exposure to hydrogen chloride (HCl) vapour or fume may cause discolouration or erosion of the teeth, bleeding of the nose and gums; and ulceration of the mucous membranes of the nose. Workers exposed to hydrochloric acid suffered from stomach inflammation and a number of cases of chronic bronchitis (airway inflammation) have also been reported. Repeated or prolonged exposure to dilute solutions of hydrogen chloride may cause skin inflammation. Welding or flame cutting of metals with zinc or zinc dust coatings may result in inhalation of zinc oxide fume; high concentrations of zinc oxide fume may result in "metal fume fever"; also known as "brass chills", an industrial disease of short duration. [I.L.O] Symptoms include malaise, fever, weakness, nausea and may appear quickly if operations occur in enclosed or poorly ventilated areas.

ECOLOGICAL INFORMATION

Ecotoxicity (Aquatic & Terrestrial):

Zinc Chloride

LC50	Fish	0.001-0.58mg/L
EC50	Crustacea	0.001-0.014mg/L
EC50	Algae or other aquatic plants	0.0109016000mg/L
BCF	Algae or other aquatic plants	139.867528mg/L
EC10	Algae or other aquatic plants	0.00052mg/L
NOEC	Algae or other aquatic plants	>0.0001mg/L

Hydrogen Chloride

LC50	Fish	70.057mg/L
EC50	Algae or other aquatic plants	344.947mg/L
NOEC	Fish	10mg/L

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high-water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters. Wastes resulting from use of the product must be disposed of on site or at approved waste sites. For Chloride: Although inorganic chloride ions are not normally considered toxic, they can exist in effluents at acutely toxic levels. Incidental exposure to inorganic chloride may occur in occupational settings where chemicals management policies are improperly applied. The toxicity of chloride salts depends on the counter-ion (cation) present; that of chloride itself is unknown. Chloride toxicity has not been observed in humans except in the special case of impaired sodium chloride metabolism, e.g., in congestive heart failure. For Zinc and its Compounds: BCF: 4 to 24,000.

Environmental Fate: Zinc is capable of forming complexes with a variety of organic and inorganic groups and is an essential nutrient present in all organisms. Prevent, by any means available, spillage from entering drains or water courses. **DO NOT** discharge into sewer or waterways.

Atmospheric Fate: Zinc concentrations in the air are relatively low, except near industrial sources, such as smelters. There is no estimate for the atmospheric lifetime of zinc, but, since zinc is transported long distances in air, its lifetime in air is at least on the order of days.

The material is classified as an **ecotoxin*** because the ***Fish LC50 (96 hours)*** is less than or equal to 0.1 mg/l

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Zinc chloride	HIGH	HIGH
Hydrogen chloride	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
Zinc chloride	HIGH (BCF = 16000)
Hydrogen chloride	LOW (LogKOW = 0.5392)

Mobility in soil

Ingredient	Mobility
Zinc chloride	LOW (KOC = 23.74)
Hydrogen chloride	LOW (KOC = 14.3)

DISPOSAL CONSIDERATIONS

Product / Packaging disposal

Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: If container cannot be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Where possible retain label warnings and SDS and observe all notices pertaining to the product. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. Recycle wherever possible. Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. Treat and neutralise at an approved treatment plant. Treatment should involve: Mixing or slurrying in water; Neutralisation with soda-lime or soda-ash followed by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material). Decontaminate empty containers with 5% aqueous sodium hydroxide or soda ash, followed by water.

Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled. The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

TRANSPORT INFORMATION

UN Number: 2331
Proper Shipping name: Zinc Chloride, Anhydrous
Dangerous Goods Class: 8 - Corrosive
Subsidiary Risk: None.
Packing group: III
Hazchem Code: 2X

REGULATORY INFORMATION

HSNO Classifications: 8.1A, 6.1C, 8.2C, 8.3A, 9.1A
EPA approval: HSR001554 – Zinc Chloride

Restrictions: Zinc Chloride is Restricted to Workplace only, due to the Acute Toxicity (Category 3) classification under the Hazardous Substances (Hazardous Property Controls) Notice 2017

OTHER INFORMATION

End of SDS.

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