PROPSPEED Stripspeed
Safety Data Sheet

Section 1. Identification of the material and the supplier

Product:	Stripspeed
Product Use:	Paint stripper for metal products.
New Zealand Supplier:	Propspeed International Ltd 23 Akatea Road Glendene Auckland 0602 **www.propspeed.com** Email: info@propspeed.com
Telephone:	+64 9 524 1470
Fax:	+64 9 813 5246
Australian Supplier:	18/5 Daintree Place, West Gosford, NSW 2250, Australia
Telephone:	+61 1800 677 436
Emergency Response Telephone: (24 hours, 365 days)	New Zealand: 0800 243 622 Australian 1800 127 406 Global Access +64 4 917 9888 (ChemCall)
Date of SDS Preparation:	October 3, 2022

Section 2. Hazards Identification

Australia:
Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia

New Zealand:
This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval Code: Metal Industry Products (Corrosive) – HSR002609

Pictograms:

Signal Word: **DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Acute oral toxicity Cat. 4	H302	Harmful if swallowed.
Acute inhalation toxicity Cat. 4	H332	Harmful if inhaled.
Aspiration hazard Cat. 1	H304	May be fatal if swallowed and enters airways.
Specific target organ toxicity – repeated	H373	May cause damage to organs through prolonged or repeated exposure.

exposure Cat. 2		
specific target organ toxicity – single exposure Cat. 3 respiratory tract irritation	H335	May cause respiratory irritation.
Narcotic effects	H336	May cause drowsiness or dizziness.
Skin corrosion Cat. 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage Cat. 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment chronic Cat. 2	H411	Toxic to aquatic life with long lasting effects.

Prevention Code	**Prevention Statement**
P102	Keep out of reach of children.
P103	Read label before use.
P260	Do not breathe fumes, mist, vapours or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.

Response Code	**Response Statement**
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301 + P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage Code	**Storage Statement**
P405	Store locked up.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

Disposal Code	**Disposal Statement**
P501	Dispose of according to local regulations

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
ethylene glycol monbutyl ether	10-50	111-76-2
diethylene glycol monobutyl ether	<10	112-34-5
formic acid	5 - 10	64-18-6
aromatic 150	10 - 50	64742-95-6
oxalic acid	<5	144-62-7

Section 4. First Aid Measures

If in Eyes	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

If on Skin	Wash with soap and water. Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
If Swallowed	Do NOT induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Transport to hospital or doctor without delay.
If Inhaled	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, without delay. For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed.
Special Notes:	Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours. Effective therapy against burns from oxalic acid involves replacement of calcium. Intravenous oxalic acid is substantially excreted (88% - 90%) in the urine within 36 hours. Followed acute or short-term repeated exposures to ethylene glycol monoalkyl ethers and their acetates: Hepatic metabolism produces ethylene glycol as a metabolite. Clinical presentation, following severe intoxication, resembles that of ethylene glycol exposures. Monitoring the urinary excretion of the urinary excretion of the alkoxyacetic acid metabolites may be a useful indication of exposure.

Toxicology: For petroleum distillates

- In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption - decontamination (induced emesis or lavage) is controversial and should be considered on the merits of each individual case; of course the usual precautions of an endotracheal tube should be considered prior to lavage, to prevent aspiration.
- Individuals intoxicated by petroleum distillates should be hospitalized immediately, with acute and continuing attention to neurologic and cardiopulmonary function.
- Positive pressure ventilation may be necessary.
- Acute central nervous system signs and symptoms may result from large ingestions of aspiration-induced hypoxia.
- After the initial episode, individuals should be followed for changes in blood variables and the delayed appearance of pulmonary oedema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated.

·	Gastrointestinal symptoms are usually minor and pathological changes of the liver and kidneys are reported to be uncommon in acute intoxications.
·	Chlorinated and non-chlorinated hydrocarbons may sensitize the heart to epinephrine and other circulating catecholamines so that arrhythmias may occur.Careful consideration of this potential adverse effect should precede administration of epinephrine or other cardiac stimulants and the selection of bronchodilators. BP America Product Safety & Toxicology Department

For acute or short term repeated exposures to strong acids:

Airway problems may arise from laryngeal edema and inhalation exposure. Treat with 100% oxygen initially. Respiratory distress may require cricothyroidotomy if endotracheal intubation is contraindicated by excessive swelling Intravenous
lines should be established immediately in all cases where there is evidence of circulatory compromise. Strong acids produce a coagulation necrosis characterised by formation of a coagulum (eschar) as a result of the dessicating action of the acid on proteins in specific tissues.
INGESTION:
Immediate dilution (milk or water) within 30 minutes post ingestion is recommended.
DO NOT attempt to neutralise the acid since exothermic reaction may extend the corrosive injury.
Be careful to avoid further vomit since re-exposure of the mucosa to the acid is harmful. Limit fluids to one or two glasses in an adult.
Charcoal has no place in acid management.
Some authors suggest the use of lavage within 1 hour of ingestion.
SKIN:
Skin lesions require copious saline irrigation. Treat chemical burns as thermal burns with non-adherent gauze and wrapping.
Deep second-degree burns may benefit from topical silver sulfadiazine.
EYE:
Eye injuries require retraction of the eyelids to ensure thorough irrigation of the conjuctival cul-de-sacs. Irrigation should last at least 20-30 minutes.
DO NOT use neutralising agents or any other additives. Several litres of saline are required.
Cycloplegic drops, (1% cyclopentolate for short-term use or 5% homatropine for longer term use) antibiotic drops, vasoconstrictive agents or artificial tears may be indicated dependent on the severity of the injury.
Steroid eye drops should only be administered with the approval of a consulting ophthalmologist).
[Ellenhorn and Barceloux: Medical Toxicology]

First aid facilities	Eye wash and safety shower.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion:	Harmful if swallowed. May be fatal if swallowed and enters airways.
Inhalation:	Harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness.
Skin:	Causes severe skin burns.
Eye:	Causes serious eye damage**.**
Chronic:	May cause damage to organs through prolonged or repeated exposure ...

Section 5. Fire Fighting Measures

Hazard Type	Non-Flammable
Hazards from products	Combustion products include: carbon monoxide (CO) carbon dioxide (CO2)

	sulfur oxides (SOx) other pyrolysis products typical of burning organic material. May emit poisonous fumes.
Suitable Extinguishing media	Foam, dry chemical, BCF (where regs permit), carbon dioxide and water spray (large fires only).
Precautions for firefighters and special protective clothing	Wear breathing apparatus plus protective gloves in the event of a fire. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.
HAZCHEM CODE	**2X**

Section 6. Accidental Release Measures

Wear protective equipment as detailed in Section 8. Evacuate all non-essential personnel. Avoid breathing vapours and contact with skin and eyes.

Do not allow to enter waterways.

Contain spill and absorb with earth, sand inert materials or vermiculite. Place in a suitable labelled container for disposal. Dispose as per Section 13.

Section 7. Handling and Storage

Precautions for safe handling:

- Read label before use.
- Do not breathe, fumes, mist, vapours or spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- The conductivity of this material may make it a static accumulator., A liquid is typically considered nonconductive if its conductivity is below 100 pS/m and is considered semi-conductive if its conductivity is below 10 000 pS/m., Whether a liquid is nonconductive or semi-conductive, the precautions are the same., A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid.
- Containers, even those that have been emptied, may contain explosive vapours.
- Do NOT cut, drill, grind, weld or perform similar operations on or near containers.
- The tendency of many ethers to form explosive peroxides is well documented. Ethers lacking non-methyl hydrogen atoms adjacent to the ether link are thought to be relatively safe
- DO NOT concentrate by evaporation, or evaporate extracts to dryness, as residues may contain explosive peroxides with DETONATION potential.
- Any static discharge is also a source of hazard.
- Before any distillation process remove trace peroxides by shaking with excess 5% aqueous ferrous sulfate solution or by percolation through a column of activated alumina.
- Distillation results in uninhibited ether distillate with considerably increased hazard because of risk of peroxide formation on storage.
- Add inhibitor to any distillate as required.
- When solvents have been freed from peroxides by percolation through columns of activated alumina, the absorbed peroxides must promptly be desorbed by treatment with polar solvents such as methanol or water, which should then be disposed of safely.

Conditions for safe storage:

- Store away from incompatible materials as detailed in Section 10.
- Store locked up.

- Store in a well-ventilated place. Keep container tightly closed.
- The substance accumulates peroxides which may become hazardous only if it evaporates or is distilled or otherwise treated to concentrate the peroxides. The substance may concentrate around the container opening for example.
- Purchases of peroxidisable chemicals should be restricted to ensure that the chemical is used completely before it can become peroxidised.
- A responsible person should maintain an inventory of peroxidisable chemicals or annotate the general chemical inventory to indicate which chemicals are subject to peroxidation. An expiration date should be determined. The chemical should either be treated to remove peroxides or disposed of before this date.
- The person or laboratory receiving the chemical should record a receipt date on the bottle. The individual opening the container should add an opening date.
- Unopened containers received from the supplier should be safe to store for 18 months.
- Opened containers should not be stored for more than 12 months.
- Electrostatic discharge may be generated during pumping - this may result in fire.
- Ensure electrical continuity by bonding and grounding (earthing) all equipment.
- Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<=1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec).
- Avoid splash filling.
- Do NOT use compressed air for filling discharging or handling operations.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately. Launder contaminated clothing before re-use.
- Use good occupational work practice.
- Observe manufacturer's storage and handling recommendations contained within this SDS.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
- Pure formic acid slowly decomposes releasing toxic carbon monoxide and may pressurise containers. Water in less concentrated acid improves stability.
- Extreme care needed in opening containers of unknown age
- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storage and handling recommendations contained within this SDS.

Suitable Container:

- DO NOT use aluminium or galvanised containers
- Lined metal can, lined metal pail/ can.
- Plastic pail.
- Polyliner drum.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

  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.
- Cans with friction closures and low pressure tubes and cartridges may be used.

- Where combination packages are used, and the inner packages are of glass, there must be sufficient inert cushioning material in contact with inner and outer packages *.
- In addition, where inner packagings are glass and contain liquids of packing group I and II there must be sufficient inert absorbent to absorb any spillage.
- Unless the outer packaging is a close-fitting moulded plastic box and the substances are not incompatible with the plastic.
- All inner and sole packagings for substances that have been assigned to Packaging Groups I or II on the basis of inhalation toxicity criteria, must be hermetically sealed.

Storage incompatibility:
Oxalic acid (and its dihydrate):
React violently with strong oxidisers, bromine, furfuryl alcohol, hydrogen peroxide (90%), phosphorous trichloride, silver powders react explosively with chlorites and hypochlorites mixture with some
silver compounds form explosive salts of silver oxalate is incompatible with caustics and alkalis, urea, alkaline metals and steel attacks polyvinyl alcohol and acetal plastics

Ethylene glycol monobutyl ether (2-butoxyethanol) and its acetate:
May form unstable peroxides in storage is incompatible with oxidisers, permanganates, peroxides, ammonium persulfate, bromine dioxide, nitrates, strong acids, sulfuric acid, nitric acid, perchloric acid
Reacts with mild steel, galvanised steel / zinc producing hydrogen gas which may form an explosive mixture with air.

Formic acid:
Reacts explosively or violently strong oxidisers, with hydrogen peroxide, furfuryl alcohol, hypochlorites, isocyanides, nitromethane, chromic acid, nitric acid, phosphorus pentaoxide, strong bases thallium nitrate, nitromethane. reacts with concentrated sulfuric acid to produce carbon dioxide is incompatible with alkalis, ammonia, aliphatic amines, alkanolamines, furfuryl alcohol, isocyanates, alkylene oxides, epichlorohydrin, palladium is a strong reducing agent attacks aluminium, cast iron and steel, some plastics, rubber and coatings slowly decomposes in storage forming carbon dioxide gas
Glycol ethers may form peroxides under certain conditions; the potential for peroxide formation is enhanced when these substances are used in processes such as distillation where they are concentrated or even evaporated to near-dryness or dryness; storage under a nitrogen atmosphere is recommended to minimise the possible formation of highly reactive peroxides
Nitrogen blanketing is recommended if transported in containers at temperatures within 15 deg C of the flash-point and at or above the flash-point - large containers may first need to be purged and inerted with nitrogen prior to loading in the presence of strong bases or the salts of strong bases, at elevated temperatures, the potential exists for runaway reactions. Contact with aluminium should be avoided; release of hydrogen gas may result- glycol ethers will corrode scratched aluminium surfaces.
May discolour in mild steel/ copper; lined containers, glass or stainless steel is preferred
Glycols and their ethers undergo violent decomposition in contact with 70% perchloric acid. This seems likely to involve formation of the glycol perchlorate esters (after scission of ethers) which are explosive, those of ethylene glycol and 3-chloro1,2- propanediol being more powerful than glyceryl nitrate, and the former so sensitive that it explodes on addition of water . Investigation of the hazards associated with use of 2-butoxyethanol for alloy electropolishing showed that mixtures with
50-95% of acid at 20 deg C, or 40-90% at 75 C, were explosive and initiable by sparks. Sparking caused mixtures with 40-50% of acid to become explosive, but 30% solutions appeared safe under static conditions of temperature and concentration. Avoid strong bases. Avoid reaction with oxidising agents

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

		TWA		STEL	
Substance	**CAS #**	**ppm**	**mg/m^3**	**ppm**	**mg/m^3**

Formic acid	[64-18-6]	5	9.4	10	19
Oxalic acid	[144-62-7]	-	1	-	2
2-Butoxyethanol (Butyl glycol ether)	[111-76-2]	25	121	-	-

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices APRIL 2022 13TH EDITION.

Engineering Controls:

Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection.

Personal Protection Equipment

Eyes	Tight fitting safety goggles or face shield should be used. Avoid wearing contact lenses.
Hands	Elbow length PVC gloves.
Skin	Wear full protective overalls and rubber boots.
Respiratory	Type AB-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Section 9 Physical and Chemical Properties

Appearance	Creamy
Physical State	Gel Liquid
Colour	Not available
Odour	Vinegar
Odour Threshold	Not available
pH	Not available
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	68°C
Flammability	Non-flammable
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity (water =1)	0.96
Water Solubility	Not available
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available
Particle Characteristics	Not available

Section 10. Stability and Reactivity

Stability of Substance	Stable under normal conditions of temperature and pressure.
Possibility of hazardous	Refer to Section 7

reactions	
Conditions to Avoid	Refer to Section 7
Incompatible Materials	Refer to Section 7.
Hazardous Decomposition Products	Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) sulfur oxides (SOx) other pyrolysis products typical of burning organic material. May emit poisonous fumes.

Section 11 Toxicological Information

Acute Effects:

Swallowed	**Harmful if swallowed.** Ingestion of acidic corrosives may produce circumoral burns with a distinct discolouration of the mucous membranes of the mouth, throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be evident. Oedema of the epiglottis may produce respiratory distress and possibly, asphyxia. Nausea, vomiting, diarrhoea and a pronounced thirst may occur. More severe exposures may produce a vomitus containing fresh or dark blood and large shreds of mucosa. Shock, with marked hypotension, weak and rapid pulse, shallow respiration and clammy skin may be symptomatic of the exposure. Circulatory collapse may, if left untreated, result in renal failure. Severe cases may show gastric and oesophageal perforation with peritonitis, fever and abdominal rigidity. Stricture of the oesophageal, gastric and pyloric sphincter may occur as within several weeks or may be delayed for years. Death may be rapid and often results from asphyxia, circulatory collapse or aspiration of even minute amounts. Delayed deaths may be due to peritonitis, severe nephritis or pneumonia. Coma and convulsions may be terminal. Swallowing of the liquid may cause aspiration of vomit into the lungs with the risk of haemorrhaging, pulmonary oedema, progressing to chemical pneumonitis; serious consequences may result. Signs and symptoms of chemical (aspiration) pneumonitis may include coughing, gasping, choking, burning of the mouth, difficult breathing, and bluish coloured skin (cyanosis). The material is not thought to produce adverse health effects following ingestion (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.
Dermal	**Not applicable.**
Inhalation	**Harmful if inhaled.** **May cause drowsiness or dizziness**. Repeated or prolonged exposure to mixed hydrocarbons may produce narcosis with dizziness, weakness, irritability, concentration and/or memory loss, tremor in the fingers and tongue, vertigo, olfactory disorders, constriction of visual field, paraesthesias of the extremities, weight loss and anaemia and degenerative changes in the liver and kidney. Chronic exposure by petroleum workers, to the lighter hydrocarbons, has been associated with visual disturbances, damage to the central nervous system, peripheral neuropathies (including numbness and paraesthesias), psychological and neurophysiological deficits, bone marrow toxicities (including hypoplasia possibly due to benzene) and hepatic and renal involvement. Chronic dermal exposure to petroleum hydrocarbons may result in defatting which produces localised dermatoses. Surface cracking and erosion may also increase susceptibility to infection by microorganisms. One epidemiological study of petroleum refinery

	workers has reported elevations in standard mortality ratios for skin cancer along with a dose-response relationship indicating an association between routine workplace exposure to petroleum or one of its constituents and skin cancer, particularly melanoma. Other studies have been unable to confirm this finding. Hydrocarbon solvents are liquid hydrocarbon fractions derived from petroleum processing streams, containing only carbon and hydrogen atoms, with carbon numbers ranging from approximately C5-C20 and boiling between approximately 35-370 deg C. Many of the hydrocarbon solvents have complex and variable compositions with constituents of 4 types, alkanes (normal paraffins, isoparaffins, and cycloparaffins) and aromatics (primarily alkylated one- and two-ring species). Despite the compositional complexity, most hydrocarbon solvent constituents have similar toxicological properties, and the overall toxicological hazards can be characterized in generic terms. Hydrocarbon solvents can cause chemical pneumonitis if aspirated into the lung, and those that are volatile can cause acute CNS effects and/or ocular and respiratory irritation at exposure levels exceeding occupational recommendations. Otherwise, there are few toxicologically important effects. The exceptions, n-hexane and naphthalene, have unique toxicological properties. **May cause respiratory irritation.** Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. Serious damage (clear functional disturbance or morphological change which may have toxicological significance) is likely to be caused by repeated or prolonged exposure. As a rule the material produces, or contains a substance which produces severe lesions. Such damage may become apparent following direct application in subchronic (90 day) toxicity studies or following sub-acute (28 day) or chronic (two-year) toxicity tests. Exposure to the material may cause concerns for human fertility, generally on the basis that results in animal studies provide sufficient evidence to cause a strong suspicion of impaired fertility in the absence of toxic effects, or evidence of impaired fertility occurring at around the same dose levels as other toxic effects, but which are not a secondary non-specific consequence of other toxic effects. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.
Eye	**Causes serious eye damage.** Direct eye contact with acid corrosives may produce pain, lachrymation, photophobia and burns. Mild burns of the epithelia generally recover rapidly and completely. Severe burns produce long-lasting and possible irreversible damage. The appearance of the burn may not be apparent for several weeks after the initial contact. The cornea may ultimately become deeply vascularised and opaque resulting in blindness. When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation. Irritation of the eyes may produce a heavy secretion of tears (lachrymation).
Skin	**Causes severe skin burns.** Skin contact with the material may produce toxic effects; systemic effects may result following absorption. 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. Solutions of 5% to 10% oxalic acid are irritating to the skin after

	prolonged contact; early gangrene may occur after hand immersion in oxalate solutions. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds 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. The liquid may be miscible with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives . The material may accentuate any pre-existing dermatitis condition Ethylene glycol monobutyl ether (2-butoxyethanol) penetrates the skin easily and toxic effects via this route may be more likely than by inhalation. Percutaneous uptake rate in the guinea pig was estimated to be 0.25 umole/min/cm2. There are indications that diethylene glycol monobutyl ether is absorbed through intact skin. Toxic effects only occur at very high doses.

Chronic Effects:

Carcinogenicity	**Not applicable.**
Reproductive Toxicity	**Not applicable.**
Germ Cell Mutagenicity	**Not applicable.**
Aspiration	**May be fatal if swallowed and enters airways.**
STOT/SE	**Not applicable.**
STOT/RE	**May cause damage to organs through prolonged or repeated exposure.** Repeated or prolonged exposure to acids may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Gastrointestinal disturbances may also occur. Chronic exposures may result in dermatitis and/or conjunctivitis. The impact of inhaled acidic agents on the respiratory tract depends upon a number of interrelated factors. These include physicochemical characteristics, e.g., gas versus aerosol; particle size (small particles can penetrate deeper into the lung); water solubility (more soluble agents are more likely to be removed in the nose and mouth). Given the general lack of information on the particle size of aerosols involved in occupational exposures to acids, it is difficult to identify their principal deposition site within the respiratory tract. Acid mists containing particIes with a diameter of up to a few micrometers will be deposited in both the upper and lower airways. They are irritating to mucous epithelia, they cause dental erosion, and they produce acute effects in the lungs (symptoms and changes in pulmonary function). AsthmatIcs appear to be at particular risk for pulmonary effects.

Individual component information:

Acute Toxicity:

Chemical Name	Oral – LD50	Dermal – LD50	Inhalation – LC50
Ethylene Glycol Monobutyl Ether	300 mg/kg (rat)	210mg/kg (guinea pig)	2.21mg/L/4hrs (Rat)
Diethylene Glycol Monobutyl Ether	5660mg/kg (rat)	4120 mg/kg (rabbit)	-
Formic Acid	700mg/kg(mouse)	>2000mg/kg (rat)	7.4mg/L/4hrs (rat)
Aromatic 150	>4500mg/kg (Rat)	>1900mg/kg(Rabbit)	>4.42mg/L/4hrs (Rat)
Oxalic Acid	475mg/kg (rat)	2000mg/kg (rabbit)	-

Water	>90000mg/kg (rat)	-	-

Section 12. Ecotoxicological Information

Toxic to aquatic life with long lasting effects.

Persistence and degradability	ethylene glycol monobutyl ether: LOW (Half-life = 56 days water/soil, 1.37 days air) diethylene glycol monobutyl ether: LOW formic acid: LOW (Half-life = 14 days water/soil, 55.46 days air oxalic acid: LOW
Bioaccumulation	ethylene glycol monobutyl ether: LOW (BCF = 2.51) diethylene glycol monobutyl ether: LOW (BCF = 0.46) formic acid: LOW (BCF = 0.22) aromatic 150: LOW (BCF = 159) oxalic acid: LOW (LogKOW = -1.7365)
Mobility in Soil	ethylene glycol monobutyl ether: HIGH (KOC = 1) diethylene glycol monobutyl ether: LOW (KOC = 10) formic acid: HIGH (KOC = 1) oxalic acid: HIGH (KOC = 1.895)
Other adverse effects	Not available.

<u>Individual component information :</u>

Ethylene Glycol Monobutyl Ether:

Species	**Duration**	Value LC50/EC50	Source
Algae or other aquatic plants	72 hr	623 mg/L	2
Crustacea	48 hr	164 mg/L	2
Crustacea	48 hr	7.2 mg/L	2
Fish	96 hr	1700 mg/l	Not available
Algae or other aquatic plants	96 hr	720 mg/L	2

Diethylene Glycol Monobutyl Ether:

Species	**Duration**	Value LC50/EC50	Source
Algae or other aquatic plants	72 hr	1101 mg/L	2
Crustacea	48 hr	>100 mg/L	1
Algae or other aquatic plants	96 hr	≥100 mg/L	1
Fish	96 hr	1300 mg/l	2
Algae or other aquatic plants	96 hr	>100 mg/L	1

Formic Acid:

Species	**Duration**	Value LC50/EC50	Source
Algae or other aquatic plants	96 hr	12.6 mg/L	-
Algae or other aquatic plants	72 hr	26.9 mg/L	-
Crustacea	48 hr	34.2 mg/L	-
Fish	96 hr	46 mg/l	-
Algae or other aquatic plants	96 hr	25 mg/L	-

Aromatic 150:

Species	**Duration**	Value LC50/EC50	Source
Crustacea	48 hr	0.95 mg/L	1
Algae or other aquatic plants	72 hr	<1 mg/L	1
Crustacea	48 hr	0.95 mg/L	1
Fish	96 hr	2 - 5 mg/l	Not available
Algae or other aquatic plants	96 hr	1 mg/L	2
Algae or other aquatic plants	96 hr	64 mg/L	2
Algae or other aquatic plants	72 hr	1 mg/L	1
Algae or other aquatic plants	72 hr	19 mg/L	1
Crustacea	48 hr	6.14 mg/L	1

Oxalic Acid:

Species	**Duration**	Value LC50/EC50	Source
Algae or other aquatic plants	72 hr	>18.39 <19.92 mg/L	2
Crustacea	48 hr	136.9 mg/L	-
Algae or other aquatic plants	72 hr	>5.14 <6.01 mg/L	-

Source:
Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

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.

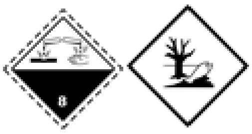
Section 13. Disposal Considerations

Disposal Method:
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. 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: Neutralisation with soda-ash or soda-lime followed by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus Decontaminate empty containers with 5% aqueous sodium hydroxide or soda ash, followed by water. Observe all label safeguards until containers are cleaned and destroyed.
Precautions or methods to avoid: Avoid release to the environment.

Section 14 Transport Information

Australia - This product is classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) (7th edition).

New Zealand - This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2020



Road, Rail, Sea and Air Transport

UN No	3265
Class – Primary	8
Packing Group	II
Proper Shipping Name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S
Marine Pollutant	Yes
Special Provisions	If the product's individual container is below 1L, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

Section 15 Regulatory Information

Australia:
Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as a **Schedule 5 Poison** according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

New Zealand:
This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval Code: **Metal Industry Products (Corrosive) – HSR002609**

HSW (HS) Regulations 2017 and EPA Notices	**Trigger Quantity**
Certified Handler	Not required
Location Certificate	250 L
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	250 L
Emergency Response Plan	1000 L
Secondary Containment	1000 L
Restriction of Use	Only use for the intended purpose.

Section 16 Other Information

Glossary

Cat	Category
EC_{50}	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC_{50}	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD_{50}	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:
Australia:

1. Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.
2. Standard for the Uniform Scheduling of Medicines and Poisons.
3. Australian Code for the Transport of Dangerous Goods by Road & Rail.
4. Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
5. Workplace exposure standards for airborne contaminants, Safe work Australia.
6. American Conference of Industrial Hygienists (ACGIH).
7. Globally Harmonised System of classification and labelling of chemicals.

New Zealand:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices April 2022 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer
This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

The information herein is given in good faith, but no warranty, express or implied is made.

Please contact the New Zealand Manufacturer or Australian supplier, if further information is required.

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