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	Get medical attention if irritation develops and persists
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician
Ingestion	Rinse mouth. Drink plenty of water. Get medical attention if symptoms occur.
Notes to Physician	In case of ingestion, monitor for acidosis and central nervous system changes. Exposed persons with previous kidney dysfunction may require special treatment.

5. FIRE-FIGHTING MEASURES

Hazchem Code	Not applicable
Flammable Properties	No information available.
Suitable Extinguishing Media	Dry chemical. Foam. Water. Carbon dioxide (CO ₂).
Unsuitable Extinguishing Media	No information available.
Specific hazards arising from the chemical	Heating of containers may cause pressure rise, with risk of bursting. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate personnel to safe areas. Any action only if without personal risk. Cool containers / tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Remove all sources of ignition. Use personal protective equipment. For personal protection see section 8. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Should not be released into the environment.
Methods for cleaning up	Take up mechanically and collect in suitable container for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Use only non-sparking tools.

7. HANDLING AND STORAGE

Handling	Handle in accordance with good industrial hygiene and safety practice. Keep away from heat, sparks and open flame. - No smoking. Do not eat, drink or smoke when using this product.
Storage	Keep in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Protect from moisture. Keep away from possible contact with incompatible substances.

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Type of Container/Package Store in original container

Handle and store according to AS/NZS Standards and the Responsible Care Management Systems: Managers Handbook.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical name	OSH (New Zealand, 1/2002)
Propylene Glycol	TWA: 150 ppm TWA: 474 mg/m ³ TWA: 10 mg/m ³

Engineering Controls Ensure adequate ventilation. Use only with adequate ventilation to keep exposures below recommended exposure limits.

Personal Protective Equipment

Eye/face Protection Safety glasses with side-shields. Eye wash bottle with pure water.

Skin Protection Protective gloves, Long sleeved clothing

Respiratory Protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. If the exposure limit is exceeded, a half-face respirator with an organic vapor cartridge and particulate filter (NIOSH type P95 or R95 filter) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece respirator with an organic vapor cartridge and particulate filter (NIOSH P100 or R100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. Please note that N series filters are not recommended for this material. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator: **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. .

General Hygiene Considerations

Keep away from food, drink, and animal feeding stuffs. When using, do not eat, drink, or smoke. Contaminated work clothing should not be allowed out of the work place. Avoid contact with skin, eyes, and clothing. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear
Physical state	Liquid
Odor	Odorless
pH	No data available
Vapor Pressure	= 0.129 mmHg @ 25 °C
Vapor Density	2.6 (Air = 1)
Flash Point	No data available
Autoignition Temperature	No data available
Upper flammability limit:	No data available
Lower flammability limit:	No data available
Boiling Point/Range	370 °F / 188.2 °C
Freezing Point/Range	No data available
Melting Point/Range	-74 °F / -59 °C

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Evaporation Rate 0.01 (BuAc = 1)
Solubility Miscible with water
Solubility in other solvents No data available
Specific Gravity 1.0361 @ 20°C

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions.
Conditions to Avoid Heat, flames and sparks. Keep away from open flames, hot surfaces and sources of ignition.
Incompatible Materials strong oxidizing agents
Hazardous decomposition products Carbon monoxide. Carbon dioxide (CO₂). aldehydes. Lactic, pyruvic or acitec acids.
Possibility of hazardous reactions Hazardous polymerisation does not occur

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Inhalation No information available.
Eye contact May cause transient eye and skin irritation.
Skin contact May cause transient eye and skin irritation.
Ingestion No information available.

Component Information

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Propylene Glycol	= 20000 mg/kg (Rat)	= 20800 mg/kg (Rabbit)	

Irritation May cause transient eye and skin irritation
Corrosivity No information available.
Sensitization No information available.
Mutagenic effects No information available.
Carcinogenicity There are no known carcinogenic chemicals in this product.
Reproductive Effects No information available.
Developmental Effects No information available.
STOT - single exposure No information available
STOT - repeated exposure No information available

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12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Microtox	Waterflea
Propylene Glycol	19000: 96 h Pseudokirchneriella subcapitata mg/L EC50	51600: 96 h Oncorhynchus mykiss mg/L LC50 static 41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50	EC50 = 710 mg/L 30 min	1000: 48 h Daphnia magna mg/L EC50 Static 10000: 24 h Daphnia magna mg/L EC50

Persistence and degradability Readily biodegradable

Bioaccumulation/Accumulation No information available.

Mobility No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of in accordance with local regulations.

Contaminated Packaging Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

UN-No Not regulated
Hazard Class Not regulated
Packing Group Not regulated
Hazchem Code Not applicable

15. REGULATORY INFORMATION

ERMA Reference ERMA User Guide to the HSNO Controls, which links to the Hazardous Substances Regulations 2001

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16. OTHER INFORMATION

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References Land Transport (Dangerous Goods) Rule 45001:2005
Hazardous Substances Regulations 2001:
- Minimum Degrees of Hazard
- Classification
- Classes 1 to 5 Controls
- Classes 6, 8 and 9 Controls
- Packaging Regulations
- Identification Regulations
- Disposal Regulations
- Emergency Management
- Identification Regulations
- Disposal Regulations
Health and Safety in Employment Regulations 1995
User Guide to the HSNO Thresholds and Classifications
OSH Workplace Exposure Standards January 2002
NZCIC Approved Code of Practice - Preparation of Safety Data Sheets
Signage for premises storing hazardous substances and dangerous goods

Disclaimer

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End of SDS