

Date of Issue/re-issue: 16/01/2019

Expiry: 01/02/2024

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name

ECP Limited

Address:

39 Woodside Ave, Northcote, Auckland , New Zealand

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Product	Ethylene Glycol				Code	2435.9
CAS#	HSNO#	UN #	DG Class/es	Packing group #	Tracking?	Handlers Certificate?
107-21-1	HSR006385	NA	NA	NA	No	No

Recommended use: Laboratory Investigations**2. Hazards identification****2.1 GHS Classification**

Acute toxicity, Oral (Category D)

Eye irritation (Category A)

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word **Warning**

Hazard statement(s)

H302 Harmful if swallowed.

H320 Causes eye irritation.

Precautionary statement(s)

Prevention

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P330 Rinse mouth.

P337 + P313 If eye irritation persists: Get medical advice/attention.

Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

2.3 Other hazards

Hazard classes NZ: 6.1E (All), 6.1E (O), 6.4A, 6.9A (All), 6.9A (O), 9.3C

3. Composition/information on ingredients

Synonyms: 1,2-Ethanediol

Formula: C₂H₆O₂

Molecular weight: 62.07 g/mol

Component	Concentration
Ethylene glycol	
CAS No.	107-21-1
	<=100%

4. First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

When ingested early symptoms mimic alcohol inebriation and are followed by nausea, vomiting, abdominal pain, weakness, muscle tenderness, respiratory failure, convulsions, cardiovascular collapse, pulmonary oedema, hypocalcemic tetany, and severe metabolic acidosis. Without treatment, death may occur in 8 to 24 hours. Victims who survive the initial toxicity period usually develop renal failure along with brain and liver damage. Exposure to and/or consumption of alcohol may increase toxic effects.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Hygroscopic.

7.3 Specific end use(s)

No data available

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits Table

Component	CAS No	Value	Control parameters	Basis
Ethylene Glycol	107-21-1	WES-Ceiling	50 ppm 127 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Body Protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance

Form: liquid

Colour: colourless

b) Odour

No data available

c) Odour Threshold

No data available

d) pH

No data available

e) Melting point/freezing point

Melting point/range: -13 °C

f) Initial boiling point and boiling range
196 - 198 °C
g) Flash point
111 °C - closed cup
h) Evaporation rate 1
i) Flammability (solid, gas)
No data available
j) Upper/lower flammability or explosive limits
Upper explosion limit: 15.3 %(V)
Lower explosion limit: 3.2 %(V)
k) Vapour pressure
0.11 hPa at 20 °C
l) Vapour density
2.14 - (Air = 1.0)
m) Relative density
1.113 g/mL at 25 °C
n) Water solubility
completely miscible soluble
o) Partition coefficient: n-octanol/water
log Pow: -1.36
p) Auto-ignition temperature
400 °C
Auto-flammability
q) Decomposition temperature
No data available
r) Viscosity
No data available

10. Stability and reactivity

10.1 Reactivity
No data available
10.2 Chemical stability
No data available
10.3 Possibility of hazardous reactions
No data available
10.4 Conditions to avoid
No data available
10.5 Incompatible materials
Strong acids, strong oxidizing agents, strong bases, aldehydes, aluminium
10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions
Carbon oxides
Other decomposition products
No data available

11. Toxicological information

11.1 Information on toxicological effects
Acute toxicity
LD50 Oral - Rat - 4,700 mg/kg
LD50 Dermal - Rabbit - 10,626 mg/kg
Skin corrosion/irritation

Skin - Rabbit - No skin irritation
Serious eye damage/eye irritation
Eyes - Rabbit - Mild eye irritation - 24 h
Respiratory or skin sensitisation
No data available
Germ cell mutagenicity
No data available
Carcinogenicity
This product is or contains a component that is probably not carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity
Laboratory experiments have shown teratogenic effects. Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.
Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure
Oral - May cause damage to organs through prolonged or repeated exposure - Kidney
Aspiration hazard
No data available
Potential health effects
Inhalation
Harmful if inhaled. May cause respiratory tract irritation.
Ingestion
Harmful if swallowed.
Skin
Harmful if absorbed through skin. May cause skin irritation.
Eyes
May cause eye irritation.
Signs and Symptoms of Exposure
When ingested early symptoms mimic alcohol inebriation and are followed by nausea, vomiting, abdominal pain, weakness, muscle tenderness, respiratory failure, convulsions, cardiovascular collapse, pulmonary oedema, hypocalcemic tetany, and severe metabolic acidosis. Without treatment, death may occur in 8 to 24 hours. Victims who survive the initial toxicity period usually develop renal failure along with brain and liver damage. Exposure to and/or consumption of alcohol may increase toxic effects.
Additional Information
RTECS: KW2975000

12. Ecological information

12.1 Toxicity

Toxicity to fish

LC50 - *Oncorhynchus mykiss* (rainbow trout) - 18,500 mg/l - 96 h

LC50 - *Leuciscus idus* (Golden orfe) - > 10,000 mg/l - 48 h

NOEC - *Pimephales promelas* (fathead minnow) - 32,000 mg/l - 7 d

NOEC - *Pimephales promelas* (fathead minnow) - 39,140 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - *Daphnia magna* (Water flea) - 74,000 mg/l - 24 h

NOEC - *Daphnia* (water flea) - 24,000 mg/l - 48 h

LC50 - *Daphnia magna* (Water flea) - 41,000 mg/l - 48 h

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Does not bioaccumulate.

Bioaccumulation other fish - 61 d -50 mg/l

Bioconcentration factor (BCF): 0.60

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

No data available

13. Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	-	-	-
14.2	UN Proper Shipping name	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.3	Transport Hazard Class	-	-	-
14.4	Packaging group	-	-	-
14.5	Environmental Hazards	No	Np	No
14.6	Special precautions for user	No data available		

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group
Standard 2006

Tracking Required: not required

Approved Handler Cert.: not required

16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please

contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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