

MATERIAL SAFETY DATA SHEET

Propylene Glycol



SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	Propylene Glycol
Other Names:	1,2-propylene glycol; 1,2-propanediol; Monopropylene glycol; Methyl glycol; Propane-1, 2-diol
Product Codes/Trade Names:	Propylene Glycol
Recommended Use:	Recommended for use in pharmaceutical, cosmetic, food and industrial applications. Used to make antifreeze and de-icing; to make polyester compounds; and as solvents in the paint and plastics industries. Recognised as safe for use in food products. Solvent for food colours and flavours Also used to create artificial smoke or fog used in fire-fighting training and in theatrical productions.
Applicable In:	Australia
Supplier:	Sucrogen BioEthanol Pty Ltd (ABN 85 009 660 191)
Address:	664 Lorimer St, Port Melbourne, Victoria, 3207, Australia
Telephone:	+61 3 9676 7200 or 1800 819 618 (applicable in Australia only)
Email Address:	bioethanol@sucrogen.com
Web Site:	www.sucrogen.com
Facsimile:	+61 3 9676 7220 or 1800 647 260 (applicable in Australia only)
Emergency Phone Number:	000 Fire Brigade and Police (available in Australia only)
Poisons Information Centre:	13 11 26 (available in Australia only)

This Material Safety Data Sheet (MSDS) is issued by the Supplier in accordance with National Standards and Guidelines from Safe Work Australia (SWA – formerly ASCC/NOHSC). The information in it must not be altered, deleted or added to. The Supplier will not accept any responsibility for any changes made to its MSDS by any other person or organization. The Supplier will issue a new MSDS when there is a change in product specifications and/or Standards, Codes, Guidelines, or Regulations.

SECTION 2: HAZARD IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE: Classified as **Non Hazardous** according to the Approved Criteria For Classifying Hazardous Substances [NOHSC:1008] 3rd Edition.

Propylene Glycol is classified as **Non Dangerous Goods** according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Risk Phrases	Safety Phrases
None Allocated	None Allocated

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name:	Synonyms	Proportion:	CAS Number:
Propylene Glycol		>99%	57-55-6

SECTION 4: FIRST AID MEASURES

Swallowed:	If poisoning occurs contact a doctor or Poisons Information Centre. If a minor amount has been accidentally swallowed, rinse mouth with water and then dilute stomach contents by giving large amounts of water. Do not attempt to induce vomiting or give anything by mouth to an unconscious person.
Eyes:	Flush eye with water for a minimum of 15 minutes. Seek medical attention promptly if irritation persists or any loss of vision occurs.
Skin:	Remove contaminated clothing. Wash contaminated skin with soap and water.
Inhaled:	Remove promptly to fresh air. If there are signs of respiratory irritation seek immediate medical attention. Treat unconsciousness by placing the person in the coma position. Apply artificial respiration if breathing stops.
First Aid Facilities:	Safety showers, eye wash stations and First Aid kits.
Advice to Doctor:	Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

Flammability:	Non-flammable. Combustible.
Suitable extinguishing media:	Use water fog or foam (or if unavailable fine water spray), dry chemical, or carbon dioxide.
Hazards from combustion products:	Burning can produce carbon monoxide and/or carbon dioxide.
Special protective precautions and equipment for fire fighters:	Use water to cool exposed containers. Heating can cause expansion or decomposition leading to violent rupture of containers. If safe to do so, remove containers from path of fire.
HAZCHEM Code:	None allocated.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedure:	All personnel involved in the containment and disposal procedures to wear protective equipment as described in Section 8 to prevent skin and eye contamination.
Containment Procedure:	Stop and contain the spill for salvage or absorb in inert absorbent material (e.g. soil, sand, vermiculite) for disposal by an approved method. Prevent run-off into drains and waterways. If contamination of sewers or waterways has occurred, advise the local emergency services.
Clean Up Procedure:	Wash the cleaned-up area with copious volumes of water to remove any trace amounts of product.

SECTION 7: HANDLING AND STORAGE

Handling:	Wear protective clothing when handling in the industrial setting.
Storage:	Store in tightly closed containers in cool, dry, and well-ventilated areas away from heat and sources of ignition. Keep containers closed at all times - check regularly for leaks. Classified as Class C1 combustible liquid, and storage should be in accordance with AS1940.
Incompatibilities:	Store away from oxidizing agents.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards:	National Occupational Exposure Standard (NES), Safe Work Australia (formerly ASCC/NOHSC).
	No exposure standard is applicable to this non-hazardous product.
Notes:	All occupational exposures should be kept to as low a level as is workable (practicable).
Biological Limit Values:	No biological limit allocated.
ENGINEERING CONTROLS	
<input type="checkbox"/> Ventilation:	No specific requirements.
<input type="checkbox"/> Special Consideration for Repair &/or Maintenance of Contaminated Equipment:	Recommendations on Exposure Control and Personal Protection should be followed.
PERSONAL PROTECTION	
<input type="checkbox"/> Personal Hygiene	Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.
<input type="checkbox"/> Skin Protection:	Protective clothing (gloves, coveralls, boots, etc.) should be worn where repeated or heavy skin contact is likely. Avoid skin contact by the use of approved chemical resistant gloves and aprons - PVC or Neoprene (AS 2161).
<input type="checkbox"/> Eye Protection:	Avoid eye contact by wearing chemical goggles with side-shields or face-shield (AS/NZS 1336) whenever exposed to vapour or mist or if there is a risk of splashing liquid in the eyes. Safety showers with eye-wash should be provided in all areas where product is handled.
<input type="checkbox"/> Respiratory Protection:	None needed under most circumstances, but if high levels of vapour or mist are generated a half-face respirator with an organic vapour cartridge and particulate filter should be used (AS/NZS 1715 and 1716).
<input type="checkbox"/> Thermal Protection:	None should be needed under normal circumstances.
<input type="checkbox"/> Smoking & Other Dusts	Smoking must be prohibited in all areas where this product is used. See safety information above.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear colourless viscous liquid
Odour:	Odourless
pH, at stated concentration:	Not available
Vapour Pressure:	0.08mm Hg @ 20°C
Vapour Density:	2.6
Boiling Point/range (°C):	188°C
Freezing/Melting Point (°C):	-59°C
Solubility:	Complete
Specific Gravity (H₂O = 1):	1.038 at 20/20°C

FLAMMABLE MATERIALS	
<input type="checkbox"/> Flash Point:	103°C
<input type="checkbox"/> Flash Point Method:	N/A
<input type="checkbox"/> Flammable (Explosive) Limit - Upper:	12.5%
<input type="checkbox"/> Flammable (Explosive) Limit - Lower:	2.6%
<input type="checkbox"/> Autoignition Temperature:	371°C
ADDITIONAL PROPERTIES	
<input type="checkbox"/> Evaporation Rate:	0.01
<input type="checkbox"/> Molecular Weight:	76
<input type="checkbox"/> Volatile Organic Compounds Content (VOC): (as specified by the Green Building Council of Australia)	Nil
<input type="checkbox"/> % Volatiles:	0%

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable
Incompatible Materials:	None known.
Conditions to avoid:	Elevated temperatures and exposure to UV-light can affect quality. Product can decompose at elevated temperatures. Avoid contact with oxidizing materials.
Hazardous Decomposition Products:	Combustion may form carbon monoxide and/or carbon dioxide.
Hazardous Reactions:	Hazardous polymerisation will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological Data:

Oral rat LD50: 20,000mg/kg
 Oral rabbit LD50: 18,500 mg/kg;
 Eye irritation rabbit/Draize: 500 mg/24h mild
 Draize Test: Administration onto the skin (human) = 500 mg/7 days (mild)

Health effects information is based on reported effects in use from overseas and Australian reports.

Effects: Acute

Swallowed:	Unlikely under normal occupational exposures but swallowing the product may cause nausea, vomiting and possible diarrhoea.
Eyes:	Liquid may cause irritation experienced as stinging, discomfort and pain. Redness and swelling of the conjunctive may occur.
Skin:	Brief skin contact may cause minor and transient irritation. Prolonged contact (e.g. clothing saturated with the product) may cause drying and cracking of the skin due to the defatting action.
Inhaled:	If exposure to mist or aerosol occurs at high levels this may be slightly irritating to mucous membranes and respiratory tract.

Effects: Chronic

There are no known specific chronic effects associated with this product.

Additional Notes

Propylene Glycol has been reported to have some teratogenic effects in laboratory animals. Animal studies have not shown these chemicals to be carcinogens.

SECTION 12: ECOLOGICAL INFORMATION

Eco-toxicity:	Low
Persistence and Degradability:	Biodegradable - if released, can be expected to biodegrade rapidly with half-life in air of a few days.
Mobility:	No data available, but may leach into groundwater.

SECTION 13: DISPOSAL CONSIDERATIONS

Suitable for incineration by approved agent under controlled conditions if permitted by local authorities, otherwise disposal must be in accordance with local waste authority requirements.

Product must be contained and not disposed to sewerage systems, drains or waterways.

Empty containers must be decontaminated by rinsing with water. Non-returnable containers should be de-gassed prior to disposal. Dispose of all waste containers and used drums in accordance with local authority guidelines.

SECTION 14: TRANSPORT INFORMATION

Proper Shipping Name:	None Allocated
UN number:	None Allocated
DG Class:	None Allocated
Subsidiary Risk 1:	None Allocated
Packaging Group:	None Allocated
HAZCHEM code:	None Allocated
Marine Pollutant:	No
Special Precautions for User:	Refer to incompatibilities in Section 7 and stability and reactivity information in Section 10.
ADDITIONAL TRANSPORT REQUIREMENTS:	
Nil	

SECTION 15: REGULATORY INFORMATION

Poisons Schedule:	Not scheduled
Other:	Nil

SECTION 16: OTHER INFORMATION**For further information on this product, please contact:**

Sucrogen BioEthanol Pty Ltd (ABN 85 009 660 191)
664 Lorimer St, Port Melbourne, Victoria, 3207, Australia

Phone: +61 3 9676 7200 or 1800 819 618 (applicable in Australia only)

Fax: +61 3 9676 7220 or 1800 647 260 (applicable in Australia only)

ADDITIONAL INFORMATION**Australian Standards References:**

AS/NZS 1336	Recommended Practices for Occupational Eye Protection
AS/NZS 1715	Selection, Use and Maintenance of Respiratory Protective Devices
AS/NZS 1716	Respiratory Protective Devices
AS 1940	The Storage and Handling of Flammable and Combustible Liquids
AS 2161	Industrial Safety Gloves and Mittens (excluding electrical and medical gloves)

Other References:

NOHSC: 2011 (2003)	National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition, April 2003, National Occupational Health and Safety Commission.
NOHSC: 2012 (1994)	National Code of Practice for the Labelling of Workplace Substances, March 1994, Australian Government Publishing Service, Canberra.
NES	National Occupational Exposure Standards for Workplace Atmospheric Contaminants (NES), Safe Work Australia (formerly ASCC/NOHSC) 1995 as amended.
ADG Code	Australian Dangerous Goods Code 7 th Edition.

AUTHORISATION

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END OF MSDS