

FOOD GRADE PROPYLENE GLYCOL

SAFETY DATA SHEET

MSDS No: Product Name:	FOOD GRADE PROPYLENE GLYCOL	QUICK SMART PRODUCTS 53 ASSEMBLY DRIVE TULLAMARINE VIC 3043 ABN: 40 959 725 049 Ph: (03) 9338 6655 (BH) Fax: (03) 9335 2598 Email: gsmart@bigpond.net.au Web: www.quicksmartproducts.com.au
Manufacturers Code:	PG20	
Date:	August 2017	

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	FOOD GRADE PROPYLENE GLYCOL
Company Name	QUICK SMART PRODUCTS
Address	53 Assembly Drive Tullamarine Vic 3043
Telephone	(03) 9338 6655 (BH) Poisons Information Centre 131126 (AH) (03) 9336 7945 (AH)
Recommended Use	

2. HAZARDS IDENTIFICATION

Poisons Schedule (Aust)	Not scheduled.
Globally Harmonised System (GHS)	
Hazard Classification	NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
GHS Label Elements	
Signal Word	No signal word
Symbol(s)	Not Applicable
Hazard Statements	Not Applicable
Precautionary Statements	
Prevention	Not Applicable
Response	Not Applicable
Storage	Not Applicable
Disposal	Not Applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Entity	CAS Number	Proportion
Propane-1,2-Diol	57-55-6	99.94 - 100%
Water	7732-18-5	0-0.05%
1-1'oxydipropan-2-ol	110-98-5	0-0.01%

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4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	No treatment necessary unless large quantities are swallowed. Rinse mouth with water. Do NOT induce vomiting. If symptoms develop, seek medical attention.
Eye	Immediately flush eyes with plenty of water for 15 minutes, holding eyelids open. If irritation persists, seek medical attention.
Skin	Remove contaminated clothing. Wash affected area with soap and plenty of water. If irritation persists, seek medical advice.
Inhaled	Remove victim from exposure to fresh air. If rapid recovery does not occur, seek medical advice.
First Aid Facilities	Eye wash station and safety showers are recommended in the area where the product is used.
Protection for First Aiders	No action shall be taken involving any personal risk or without suitable training.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of patient. Following cases of gross over-exposure, investigation of liver, kidney and eye function may be advisable. Records of such incidents should be maintained for future reference.
Medical Conditions Aggravated by Exposure	Indication of any immediate medical attention and special treatment needed: Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. It is only slightly irritating to mucous membranes and skin. It is also of low toxicity following acute ingestion. After absorption of high doses, systemic effects like CNS depression may occur. Hot vapours may cause lung damage.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, remove containers from the path of fire.
Flammability Conditions	Combustible. Will only burn if enveloped in a pre-existing fire. The vapour is heavier than air, spreads along the ground and distant ignition is possible.
Extinguishing Media	Suitable extinguishing media: Dry chemical, alcohol resistant foam, carbon dioxide, water spray. Unsuitable extinguishing media: Solid water stream.
Fire and Explosion Hazard	Heat from fire can generate flammable vapour. When mixed with air and exposed to ignition source, vapours can burn in open or explode if confined. Vapours may be heavier than air. May travel long distances along the ground before igniting and flash back to vapour source. Fine sprays/mists may be combustible at temperatures below normal flash point. Fight from a safe distance/protected location. Heat may build enough pressure to rupture closed containers/spreading fire/increasing risk of burns/injuries. Use water spray/fog for cooling. Avoid frothing/steam explosion. Burning liquid may float on water. Although water soluble, may not be practical to extinguish fire by water dilution. Notify authorities immediately if liquid enters sewer/public waters.
Hazardous Products of Combustion	CO ₂ , H ₂ O and CO (in the absence of oxygen). At high temperatures the product decomposes producing toxic and irritant fumes.

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Special Fire Fighting Instructions

Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low area. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.

Personal Protective Equipment

Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and full protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit.

Flash Point

99°C

Lower Explosion Limit

2.6%

Upper Explosion Limit

12.6%

Auto Ignition Temp

400°C

Hazchem Code

No data available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure

Eliminate all sources of ignition. Increase ventilation. Avoid walking through spilled product as it may be slippery. Use clean, non-sparking tools and equipment.

Clean Up Procedures

Extinguish all ignition sources. Stop release: prevent flow to sewers/public waters. Notify fire and environmental authorities. Impound/recover large land spill; soak up small spill with inert solids.
Soak up small spills with inert solids. Use suitable disposal containers. On water, material is soluble and may float or sink. Contain/collect rapidly to minimize dispersion. Disperse residue to reduce aquatic harm. Report per regulatory requirements.

Containment

Stop leak if safe to do so.

Environmental Precautionary Measures

Do not allow product to reach drains, sewers or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Authority.

Evacuation Criteria

Evacuate all unnecessary personnel.

Personal Precautionary Measures

Personnel involved in the clean up should wear full protective clothing as listed in Section 8.

7. HANDLING AND STORAGE

Handling

Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product vapours. Avoid prolonged or repeated exposure. Use local exhaust extraction over processing area.

For lines and fittings, avoid copper, copper alloys, zinc. Air-dry contaminated clothing in a well-ventilated area before laundering. Handling Temperature: Ambient. Prevent all contact with water and moist atmosphere. Drums should be stacked to a maximum of 3 high. Lines should be purged with nitrogen before and after product transfer. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire.

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Storage Store in a cool, dry, diked (bunded), well-ventilated area. Store away from heat. Do not store together with oxidizing and self-igniting products. Protect from moisture. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Protect from direct sunlight, heat and static discharges. Prevent all contact with water and moist atmosphere. Prevent ingress of water. Nitrogen blanket recommended for large tanks (capacity 100m³ or higher). Storage temperature: 40°C maximum. This product is classified as a 'C1' Combustible Liquid for the purpose of storage and handling in accordance with the requirements of AS1940.

Container Store in original packaging as approved by manufacturer.

8. EXPOSURE CONTROL

General The following exposure standard has been established by the Safe Work Australia (SWA):
Propane-1,2-diol: Total (vapour and particulates) CAS 57-55-6: TWA = 150ppm (474mg/m³)
Note: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.
These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Exposure Limits No data available.

Biological Limits No information available on biological limit values for this product.

Engineering Measures A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Adequate ventilation should be provided so that exposure limits are not exceeded.

Personal Protection Equipment

Respirator No respiratory protection is ordinarily required under normal conditions of use (AS1715/1716).

Eyes Chemical splash goggles (AS1336/1337).

Hands Use gloves approved to relevant standard made from neoprene, PVC (AS2161).

Clothing Long-sleeved protective clothing and safety footwear (AS3765/2210).

Work Hygienic Practices Good work practices and the adoption of good personal hygiene measures reduce unnecessary exposures. Hot showers should be used. Use soap and no other solvents. Grossly contaminated clothing and tools should be changed immediately. Gloves should be reviewed to prevent internal contamination. Use skin reconditioning cream after work.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Liquid

Appearance Liquid

Colour Colourless

Odour Odourless

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pH	No data available
Vapour Pressure	0.07mmHg Pa (@ 20°C)
Relative Vapour Density	2.62 Air = 1
Boiling Point	189°C
Melting Point	-60°C
Freezing Point	-60°C
Solubility	Soluble in water 25°C
Specific Gravity	No data available
Flash Point	99°C
Auto Ignition Temp	400°C
Evaporation Rate	No data available
Bulk Density	No data available
Corrosion Rate	No data available
Decomposition Temp	No data available
Density	1.0361g/cm ³
Specific Heat	No data available
Molecular Weight	No data available
Net Propellant Weight	No data available
Octanol Water Coefficient	-0.92
Particle Size	No data available
Partition Coefficient	No data available
Saturated Vapour Concentration	No data available
Vapour Temp	20°C
Viscosity	0.581 Poise (@ 20°C)
Volatile Percent	No data available
VOC Volume	No data available
Additional Characteristics	Surface tension: 40.1 dynes/cm at 25°C Water solubility: Soluble Molecular weight: 76.11g/mol Vaporization heat: 168.6 cal/g
Potential for Dust Explosion	Product is liquid
Fast or Intensely Burning Characteristics	No data available
Flam Propagation or Burning Rate of Solid Materials	No data available

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Non-Flammables that could Contribute Unusual Hazards to a Fire No data available

Properties that may Initiate or Contribute to Fire Intensity No data available

Reactions that Release Gases or Vapours No data available

Release of Invisible Flammable Vapours and Gases No Data Available

10. STABILITY AND REACTIVITY

General Information	Combustible liquid. Hygroscopic.
Chemical Stability	Product is stable under normal conditions of use, storage and temperature.
Conditions to Avoid	Avoid excessive heat, flame, sparks and temperatures above 40°C.
Materials to Avoid	Material can attack some forms of plastics. Do not store together with oxidizing and self-igniting products.
Hazardous Decomposition Products	Hazardous decomposition products may include noxious and toxic fumes of oxides of carbon, carbonyl and dioxolane derivatives may also be formed.
Hazardous Polymerisation	Hazardous polymerisation has not been reported.

11. TOXICOLOGICAL INFORMATION

General Information	Information given is based on product testing, and/or similar products, and/or components: Oral LD50 Rat: >2000mg/Kg Dermal LD50 Rabbit: >2000mg/Kg Inhalation Toxicity: LC50 greater than near saturated vapour concentration Skin: Not irritating to skin. Eyes: Essentially non-irritating to eyes. Respiratory: Not expected to be a respiratory irritant. Sensitisation: Not a skin sensitiser. Repeated Dose: Low systematic toxicity on repeated exposure. Cats given high doses of MPG in diet showed a decrease in red blood cell survival. Mutagenicity: Not a mutagenic. Carcinogenicity: Not carcinogenic in animal studies. Reproductive/Developmental: Not a developmental toxicant.
Ingestion	Ingestion/Aspiration: May cause adverse effects on central nervous system. Other effects may include excitation, euphoria, headache, dizziness, drowsiness, blurred vision, fatigue, tremors, convulsions, loss of consciousness, coma and even death by respiratory arrest. May also cause kidney damage and blood changes (hemoglobinuric nephrosis). Reduces intraocular pressure by raising osmotic pressure of blood. LD50: 20g/kg (oral-rat)

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Skin Irritant	In contact with skin may cause irritation, probably due to dehydration, reddening, itching and inflammation. May be absorbed through the skin. In some cases repeated contact may result in allergic skin reactions and severe irritation with appearance of vesicles and mild oedema, probably due to sweat retention. May cause slight irritation, tearing and a burning sensation in the eyes. LD50: 20.8 g/kg (skin-rabbit).
Eye Irritant	In some cases repeated contact may result in allergic skin reactions and severe irritation with appearance of vesicles and mild oedema, probably due to sweat retention. Mildly irritating when in contact with the eyes. May cause slight irritation, tearing and a burning sensation in the eyes. LD50: 20.8g/kg (skin-rabbit).
Inhalation	It is unlikely due to its low volatility, though prolonged exposures to saturated atmospheres may cause irritation of respiratory system.
Carcinogen Category	No data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Acute Toxicity Fish: Low toxicity: LC/EC/IC50 >100mg/L Aquatic Invertebrates: Low toxicity: LC/EC/IC50 >100mg/L Algae: Low toxicity: LC/EC/IC50 >100mg/L Micro-organisms: Expected to have low toxicity: LC/EC/IC50 >100mg/L
Persistence/ Degradability	This product is considered ready biodegradable.
Mobility	If the product enters soil, it will be highly mobile and may contaminate ground water.
Environmental Fate	Avoid contaminating waterways, drains and sewers.
Bioaccumulation Potential	In accordance with column 2 of REACH Annex IX, the bioaccumulation study does not need to be conducted as the substance can be expected to have a low potential for bioaccumulation.
Environmental Impact	No data available.

13. DISPOSAL CONSIDERATIONS

General Information	Recover or recycle if possible. Dispose of in accordance with all Local, State and Federal Regulations. All empty packaging should be disposed of in accordance with Local, State and Federal Regulations or recycled/reconditioned at an approved facility. Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Send to drum recoverer or metal reclaimer.
Special Precautions for Landfill	Contact a specialist disposal company or the local waste regulator for advice.

14. TRANSPORT INFORMATION

Land Transport (Aust) (ADG Code)	
Proper Shipping Name Class	PROPYLENE GLYCOL C2 Combustible Liquids - Flash Point >150°C
Subsidiary Risk(s)	No data available
UN Number	No data available
Hazchem	No data available
Pack Group	No data available
Special Provision	No data available

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Sea Transport

IMDG Code

Proper Shipping Name	PROPYLENE GLYCOL
Class	C1 Combustible Liquids - Flash Point 61-150°C
Subsidiary Risk(s)	No data available
UN Number	No data available
Hazchem	No data available
Pack Group	No data available
Special Provision	No data available
EMS	No data available
Marine Pollutant	No

Air Transport

IATA DGR

Proper Shipping Name	RROPYLENE GLYCOL
Class	No data available
Subsidiary Risk(s)	No data available
UN Number	No data available
Hazchem	No data available
Pack Group	No data available
Special Provision	No data available

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification

NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

15. REGULATORY INFORMATION

Standard Uniform Schedule of Medicine and Poisons (SUSMP)

Not scheduled

Australian Inventory (AICS)

Listed

16. OTHER INFORMATION

Contact Person/Point Technical Information: (03) 9338 6655.

Date of Preparation or last revision of SDS SDS prepared: 15 August 2017

Abbreviations

ADG Code	Australian Code for the Transport of Dangerous Goods by Road & Rail
AICS	Australian Inventory of Chemical Substances
CAS Number	Chemical Abstracts Service Registry Number
CO₂	Carbon Dioxide
COD	Chemical Oxygen Demand
GHS	Globally Harmonised System of Classification and Labelling
g/cm³	Grams per Cubic Centimetre
g/L	Grams per Litre
HAZCHEM Code	Emergency action code of numbers and letters which gives information to emergency services
IATA	International Air Transport Association

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MSDS No:		QUICK SMART PRODUCTS
Product Name:	FOOD GRADE PROPYLENE GLYCOL	53 ASSEMBLY DRIVE
Manufacturers Code:	PG20	TULLAMARINE VIC 3043
Date:	August 2017	ABN: 40 959 725 049
		Ph: (03) 9338 6655 (BH) Fax: (03) 9335 2598
		Email: gsmart@bigpond.net.au
		Web: www.quicksmartproducts.com.au

IMDG	International Maritime Dangerous Goods
LC	Lethal Concentration
LD	Lethal Dose
mg/m³	Milligrams per Cubic Metre
NOHSC	National Occupational Health and Safety Commission
ppm	Parts Per Million
SDS	Safety Data Sheet
STEL	Short Term Exposure Limit
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
TLV	Threshold Limit Value
TWA	Time Weighted Average

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user must review this SDS in the context of how the product will be handled in the workplace and in conjunction with other materials. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The Company accepts no responsibility for any injury, loss or damage, resulting from abnormal use of the material, or from any failure to adhere to recommendations. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

END OF SDS