

## MATERIAL SAFETY DATA SHEET

### 1. Product and Company Identification

Material name Star KPO Glycerin  
 Manufacturer The Procter & Gamble  
 Company Procter & Gamble  
 Chemicals Sharon Woods  
 Innovation Center  
 11530 Reed Hartman Highway  
 Cincinnati, Ohio 45241  
 1-800-477-8899 or 1-513-626-6882  
 PGChemMSDS.IM@pg.com  
 CHEMTREC: 1-800-424-9300 U.S. and Canada  
 CHEMTREC: 1-703-527-3887 For calls originating elsewhere

Version # 03  
 Revision date 02-12-2010  
 CAS # Mixture  
 MSDS Number GLYC326  
 Product Code 95711091

### 2. Hazards Identification

Emergency overview Harmful in contact with eyes. Prolonged exposure may cause chronic effects.  
 OSHA regulatory status This product is considered not hazardous under 29 CFR 1910.1200 (Hazard Communication).  
 Potential health effects  
 Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.  
 Eyes Contact with eyes may cause irritation.  
 Skin Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.  
 Inhalation Avoid contact with the skin. When it is heated, this material may cause thermal burns. Avoid breathing dust/fume/gas/mist/vapors/spray. High mist concentrations may cause irritation of respiratory tract.  
 Ingestion Components of the product may be absorbed into the body by ingestion. Do not ingest. Unlikely to be harmful unless excessive amount.  
 Specific hazards No hazards resulting from the material as supplied.  
 Potential environmental effects May cause long-term adverse effects in the environment. Product is biodegradable.

### 3. Composition / Information on Ingredients

Components	CAS #	Percent
WATER	7732-18-5	4 max
1,2,3-PROPANETRIOL	56-81-5	96

### 4. First Aid Measures

First aid procedures  
 Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Skin contact  
persists.

Wash off with warm water and soap. Get medical attention if irritation develops and

Inhalation  
breathing.

If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for

Get medical attention, if needed.

Ingestion	Rinse mouth thoroughly. If ingestion of a large amount does occur, call a poison control center immediately.
Notes to physician	Symptoms may be delayed.
General advice	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire Fighting Measures

Flammable properties	This product may react explosively when mixed with oxidizing agents
Extinguishing media	
Suitable extinguishing media	Water. Water spray. Foam. Dry powder. Carbon dioxide (CO2).
Special protective equipment for fire-fighters	Wear suitable protective equipment.
Specific methods	In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers.

## 6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Keep upwind. Keep out of low areas. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Should not be released into the environment.  Large Spills: Dike far ahead of spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Following product recovery, flush area with water.  Never return spills in original containers for re-use.

## 7. Handling and Storage

Handling	Use only with adequate ventilation. Wash thoroughly after handling. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not get this material in contact with eyes. Avoid contact with skin. Avoid prolonged exposure. Avoid release to the environment.
Storage	Keep away from heat, sparks and open flame. Store in a well-ventilated place. Keep container tightly closed. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children. Use care in handling/storage.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### ACGIH

Components	Type	Value	Form
1,2,3-PROPANETRIOL (56-81-5)	TWA	10.0000 mg/m3	Mist.

#### U.S. - OSHA

Components	Type	Value	Form
1,2,3-PROPANETRIOL (56-81-5)	PEL	5.0000 mg/m3	Respirable fraction.
		15.0000 mg/m3	Total dust.
	TWA	5.0000 mg/m3	Respirable fraction.
		10.0000 mg/m3	Total dust.

Engineering controls

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

## Personal protective equipment

Eye / face protection	Do not get in eyes. Chemical goggles are recommended.
Skin protection	Wear appropriate chemical resistant clothing. Chemical resistant gloves.
Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
General hygiene considerations	Do not get in eyes. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical & Chemical Properties

### Appearance

Clear.

Color Water

white.

Odor

Bland

Odor threshold Not

available.

Physical state Liquid.

Form Liquid.

pH Not

available. Melting point

Not available. Freezing point

Not available.

Boiling point 554 °F (290 °C)

estimated

Flash point > 374 °F (> 190 °C) Pensky-Martens

Closed Cup

Evaporation rate Not

available.

Flammability limits in air, upper, % by volume Not

Flammability limits in air, lower, % by volume available.

Not

available.

Vapor pressure < 0.1 mm Hg at 72 F (22.2 C)

Vapor density Not available.

Specific gravity 1.2613

estimated Relative density Not available.

Solubility (water) 100 % at 72° F

Partition coefficient (n-octanol/water) Not available

Auto-ignition temperature 739.4 °F (392.778 °C) estimated

Decomposition temperature Not available.

VOC 96 % estimated

Viscosity 1410 mPa·s 20°

C

## 10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Heat, flames and sparks. Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates).
Materials to avoid	Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates).
Hazardous decomposition products	Irritants. Toxic gas.
Hazardous polymerization	Hazardous polymerization does not occur.

## 11. Toxicological Information

Toxicological data	
Components	Test Results
1,2,3-PROPANETRIOL (56-81-5)	Acute Oral LD50 Rat: $\geq 2$ g/kg
Sensitization	Not available.
Local effects	Components of the product may be absorbed into the body through the skin. Contact may irritate or burn eyes.

Chronic effects Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood.

Prolonged exposure may cause chronic effects.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Skin corrosion/irritation Not available.

Mutagenicity Not available. Neurological effects

Not available. Reproductive effects

Not available. Teratogenicity

Not available.

Further information Symptoms may be delayed.

## 12. Ecological Information

Ecotoxicological data

Product	Test Results
Star KPO Glycerin (Mixture)	LC50 Fish: 53125 mg/l 96.00 Hours estimated
Components	Test Results
1,2,3-PROPANETRIOL (56-81-5)	LC50 Rainbow trout,donaldson trout (Oncorhynchus mykiss): 51000 - 57000 mg/l 96.00 Hours

\* Estimates for product may be based on additional component data not shown.

Ecotoxicity Components of this product have been identified as having potential environmental concerns. Environmental effects An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Persistence / degradability Even though this product is readily biodegradable, it must not be indiscriminately discarded into the environment.

## 13. Disposal Considerations

Disposal instructions Do not allow this material to drain into sewers/water supplies. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.

## 14. Transport Information

DOT

Not regulated as dangerous goods.

## 15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard

29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.

CERCLA (Superfund) reportable quantity

Material name: Star KPO Glycerin

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None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories            Immediate Hazard - Yes  
                                     Delayed Hazard - Yes  
                                     Fire Hazard - No  
                                     Pressure Hazard - No  
                                     Reactivity Hazard - No

Section 302 extremely hazardous substance    No

Section 311 hazardous chemical            Yes

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia (AICS)	Australian Inventory of Chemical Substances	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	s
China	Inventory of Existing Chemical Substances in China	No
(IECSC) Europe Substances	European Inventory of Existing Commercial Chemical (EINECS)	Yes Yes
Europe (ELINCS) Japan	European List of Notified Chemical Substances Inventory of Existing and New Chemical Substances	No Yes
(ENCS) Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS )	Yes Ye
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	s

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance  
Contains no California Prop 65 chemicals.

US - New Jersey Community RTK (EHS Survey): Reportable threshold

US - Pennsylvania RTK - Hazardous Substances: Listed substance  
1,2,3-PROPANETRIOL (CAS 56-81-5) Listed.

## 16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings Health: 2\*  
Flammability:  
1  
Physical hazard: 0

NFPA ratings Health: 2  
Flammability: 1  
Instability: 0

Disclaimer The submission of the MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied are for use only in connection with occupational safety and health. The information contained herein has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific product designated herein, and does not relate to use in combination with any other material of any other process. Procter & Gamble assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the controlled product.

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This data sheet contains changes from the previous version in section(s): This document has undergone significant changes and should be reviewed in its entirety