

SAFETY DATA SHEET

1. Identification

GHS product identifier	Moon K (Glycerin, USP, FCC)
MSDS Number	GLYC353
Version #	01
Issue date	12-16-2011
CAS #	56-81-5
Product use	Emulsifier, emollient, plasticizer, humectant, sweetener, anti-freeze, surface coatings, paints, and cosmetics. Intermediate for making glycerol derivatives.
Recommended Restrictions	Not available.
Synonym(s)	GLYCEROL
Manufacturer	P&G Chemicals Asia 238-A Thompson Road #21-01/10 Novena Square Tower A Singapore 307684 (65) 6824 5728 (day phone) PGChemMSDS.IM@pg.com CHEMTREC: +1-703-527-3887 Quality or Service Issues: 1-800-477-8899 or +1-513-626-6882

2. Hazards identification

GHS classification		
Physical hazards	Explosives	Classification not possible
	Flammable gases	Not applicable
	Flammable aerosols	Not applicable
	Oxidizing gases	Not applicable
	Gases under pressure	Not applicable
	Flammable liquids	Not classified
	Flammable solids	Not applicable
	Self-reactive substances and mixtures	Classification not possible
	Pyrophoric liquids	Classification not possible
	Pyrophoric solids	Not applicable
	Self-heating substances and mixtures	Classification not possible
	Substances and mixtures which, in contact with water, emit flammable gases	Classification not possible
	Oxidizing liquids	Classification not possible
	Oxidizing solids	Not applicable
	Organic peroxides	Classification not possible
	Corrosive to metals	Classification not possible
Health hazards	Acute toxicity, oral	Not classified
	Acute toxicity, dermal	Classification not possible
	Acute toxicity, inhalation	Not applicable
	Skin corrosion/irritation	Not classified
	Serious eye damage/eye irritation	Not classified
	Sensitization, respiratory	Classification not possible
	Sensitization, skin	Classification not possible

	Germ cell mutagenicity	Classification not possible
	Carcinogenicity	Classification not possible
	Reproductive toxicity	Classification not possible
	Specific target organ toxicity, single exposure	Classification not possible
	Specific target organ toxicity, repeated exposure	Classification not possible
	Aspiration hazard	Classification not possible
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Classification not possible
	Hazardous to the aquatic environment, long-term hazard	Classification not possible
	Hazardous to the ozone layer	Not classified
Precautionary statement		
Storage	Store in accordance with local/regional/national/international regulation.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Specific hazards	No hazards resulting from the material as supplied.	

3. Composition/information on ingredients

Components	CAS #	Percent
1,2,3-PROPANETRIOL	56-81-5	99-100

4. First aid measures

First aid procedures

Inhalation	Remove to fresh air.
Skin	Get medical attention if irritation develops or persists.
Eye	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops or persists.
Ingestion	Drink plenty of water. Call a POISON CENTER or doctor/physician if you feel unwell.

Notes to physician Not applicable.

5. Fire-fighting measures

Suitable extinguishing media	Water. Water spray. Foam. Dry powder. Carbon dioxide (CO2).
Specific hazards arising from the chemical	Not available.
Protective equipment and precautions for firefighters	In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers. Cool containers exposed to flames with water until well after the fire is out.

6. Accidental release measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material.
Environmental precautions	Prevent further leakage or spillage if safe to do so.
Methods for containment	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.
Methods for cleaning up	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. Avoid contact with skin. Avoid contact with eyes. Wash hands thoroughly after handling. Use care in handling/storage.
Storage	Keep container tightly closed. Keep out of the reach of children. Use care in handling/storage.

8. Exposure controls / personal protection

Control parameters

US. ACGIH Threshold Limit Values

Material	Type	Value	Form
1,2,3-PROPANETRIOL (56-81-5)	TWA	10 mg/m3	Mist.

Recommended monitoring procedures Not available.

Recommended monitoring procedures Not available.

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

Personal protective equipment

General Eye wash fountain is recommended.

Eye/face protection Wear eye/face protection. Wear chemical protective equipment that is specifically recommended by the manufacturer.

Skin protection Wear suitable protective clothing. Wear protective gloves. No special protective equipment required.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection Wear protective gloves.

9. Physical and chemical properties

Appearance

Clear.

Physical state	Liquid.
Color	Water white.
Form	Liquid.
Odor	Bland
Odor threshold	Not available.
pH	Not available.
Melting point/Freezing point	68 °F (20 °C)
Boiling point	>= 550.4 °F (>= 288 °C) at 760 mm Hg (101.3232 kPa)
Flash point	>= 390.2 °F (>= 199 °C) Pensky-Martens Closed Cup
Evaporation rate	Not available.
Flammability (Train fire)	Not available.
Flammability limits in air, lower, % by volume	Not available.
Flammability limits in air, upper, % by volume	Not available.
Vapor pressure	<= 0.008 mm Hg at 68 F (20 C)
Vapor density	3.17
Relative density	1.262 at 25/25 C
Solubility (H2O)	100 % Miscible
Auto-ignition temperature	739 °F (392.8 °C)
Decomposition temperature	Not available.
Viscosity	1300 mPa·s at 20° C

Specific gravity 1.2613 at 20 °C
Percent volatile 100 %

10. Stability and reactivity

Chemical stability Material is stable under normal conditions.
Possibility of hazardous reactions Hazardous polymerization does not occur.
Conditions to avoid 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 Does not decompose up to 400° F (204° C). Thermal decomposition may release acrolein.

11. Toxicological information

Toxicological data

Product	Test Results
1,2,3-PROPANETRIOL (56-81-5)	Acute Oral LD50 Rat: >= 2 g/kg
Routes of exposure	Skin contact. Eye contact.
Skin corrosion/irritation	Causes irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Other information	Not available.

12. Ecological information

Ecotoxicological data

Product	Test Results
1,2,3-PROPANETRIOL (56-81-5)	LC50 Rainbow trout,donaldson trout (Oncorhynchus mykiss): 51000 - 57000 mg/l 96 hours
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.
Bioaccumulation	Not established.
Mobility	Not established.
Other adverse effects	Not established.

13. Disposal considerations

Disposal methods Dispose of contents/container in accordance with local/regional/national/international regulations.

14. Transport information

ADR

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

15. Regulatory information

Inventory status

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

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

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

16. Other information

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.

Revision date

12-16-2011