Safety Data Sheet

Section 1 Product and Company Identification

Common Name Glycerine & Water	**Product Model Number** Not applicable.
Product File Number Not applicable.	**Product Use** Case Fill Fluid
Manufacturer's Name Meriam	**Emergency Phone Numbers** 1-800-255-3924 (US), + 01 813 248 0585 (International)
Address 10920 Madison Ave.	**Engineering Control Data** MSDS - A35811, Rev. M, EO 7519 Drawing – A34047
City, State, Zip Cleveland, Ohio 44102	**Date Prepared** 13-Nov-2015

Section 2 Hazards Identification

GHS Classification:

Physical hazards:	Not classified.
Health hazards:	Not classified.
Environmental hazards:	Not classified.

GHS label elements

Signal words:	None.
Symbols:	None.
Hazard element:	None.

Precautionary statements

Prevention:	None.
Response:	None.
Storage:	None.
Disposal:	None.

Section 3 Composition/Information on Ingredients

Components:	CAS No.	Percent
1,2,3-Propanetriol	56-81-5	99.7 % to 100 %
Water	7732-18-5	4 %

Section 4 First Aid Measures

First aid procedures

Eye:	• Rinse cautiously with water for several minutes. • Remove contact lens, if present and easy To do. • Get medical attention if irritation develops or persists.
Skin:	• Wash skin thoroughly with soap and water.
Inhalation:	• If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. • Get medical attention if needed.
Ingestion:	• Seek medical attention. • Do not induce vomiting without advice from poison control center or doctor.
Notes to physician:	• Not applicable.

Section 5 Fire Fighting Measures

Flammable Properties:	This product may react explosively when mixed with oxidizing agents.
Extinguishing media — suitable extinguishing Media:	• Water fog. • Water spray. • Foam. • Dry powder. • Carbon dioxide (CO2). • Alcohol resistant foam.
Unsuitable extinguishing Media:	Do not use water jet as an extinguisher, as this will spread the fire.
Protection of firefighters — specific hazards arising from the chemical	Combustion causes toxic fumes.
Protective equipment and precautions for firefighters:	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Firefighting Equipment/instructions:	Evacuate area.

Section 6 Accidental Release Measures

Personal precautions:	• Keep unnecessary personnel away. • Wear appropriate protective equipment and clothing during clean-up.
Environmental precautions:	• Prevent runoff from entering drains, sewers, or streams. • Avoid discharge onto the ground.
Methods for containment:	• Dike the spilled material, where this is possible.
Methods for cleaning up:	Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Section 7 Handling and Storage

Handling:	Handle in accordance with good industrial hygiene and safety practice.
Storage:	Store in a cool, dry place.

Section 8 Exposure Controls/Personal Protection

Control parameters

U.S. – OSHA

Material	Type	Value	Form
1,2,3-Propanetriol (56-81-5)	PEL	5 mg/m³	Respirable fraction.
		15 mg/m³	Total dust.

U.S. – OSHA Table z-1 Limits for air contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
1,2,3-Propanetriol (56-81-5)	PEL	5 mg/m³	Respirable fraction.
		15 mg/m³	Total dust.

Engineering controls:	Adequate ventilation should be provided so that exposure limits are not exceeded.

Personal protective equipment

General:	Use personal protective equipment as required.
Eye/face protection:	Safety glasses.
Skin protection:	• Wear suitable protective clothing. • Use protective gloves made of neoprene, nitrile, Polyethylene or PVC.
Respiratory protection:	• No personal respiratory protective equipment normally required. • In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment with combination filter (type A2/P2).

General hygiene considerations:	• Handle in accordance with good industrial hygiene and safety practice. • Keep away from food and drink. • Wash hands after handling and before eating.

Section 9 Physical and Chemical Properties

Appearance	
Physical state:	Liquid.
Color:	Water. White.
Form:	Liquid.
Odor:	Mild.
Odor Threshold:	Not available.
pH:	Not available.
Melting point/Freezing point:	64.4 °F (18 °C)
Boiling point:	554 °F (290 °C)
Flash point:	390.20 °F (199.0 °C) Pensky-Martens Closed Cup
Evaporation rate:	Not available.
Flammability (solid, gas):	Not available.
Flammability limits in air, Lower, % by volume:	Not available.
Flammability limits in air, Upper, % by volume:	Not available.
Vapor pressure:	< 0.2 mmHg at 100 °C
Relative density:	1.261 g/mL at 20 °C
Solubility (H_2O):	Miscible at 25 °C
Partition coeffiecient (n-Octanol/water):	–1.8
Autoignition temperature:	698 °F (370 °C)
Decomposition temperature:	Not available.
Specific gravity:	1.261326133

Other data	
Dynamic viscosity:	1412 mPa.a at 20 °C
Surface tension:	> 60 mN/m

Section 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 temperatures exceeding the decomposition temperature.

Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition products:	• Will decompose at temperatures exceeding 200 °C. • Decomposition may yield acrotein.

Section 11 Toxicological Information

Toxicological data

1,2,3-Propanetriol (56-81-5)

Components	Species	Test results
Acute		
Dermal LD50	Guinea pig	45 mL/kg, bw, OECD GHS
Inhalation	Rat	4655, 7 hours, mg/min/L; L(C)t)50, OECD GHS
Oral LD50	Mouse	23 000 mg/kg, bw, ca. OECD GHS
General information	Not available.	

Information on likely routes of exposure

Ingestion:	Not classified.
Inhalation:	Not classified.
Skin contact:	Not classified.
Eye contact:	Not classified.
Sensilization:	Not classified.
Carcinogenicity	• Not classified. • This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

1,2,3-Propanetriol	**in vivo:**	Oral.
	Result:	No effects.
	Species:	Rat.
	Test Duration:	2 years.

Mutagenicity: Not classified.

Germ cell mutagenicity: Ames test

1,2,3-Propanetriol	**in vitro:**	OECD 471
	Result:	Negative.
	Species:	Salmonella Typhimirium (Salmonella enterica)

Germ cell mutagenicity: Chromosome aberration

1,2,3-Propanetriol	**in vitro:**	Chinese Hamster Ovary, OECD 473
	Result:	No effects

Reproductive effects:	Not classified.	
Fertility effects – Males and Females		
1,2,3-Propanetriol	**2000 mg/kg bw/day in vivo:**	Oral.2 generation study.
	Result:	No effects
	Species:	Rat.

Teratogenicity:	Not classified.	
Development effects		
1,2,3-Propanetriol	**1310 mg/kg bw/day in vivo:**	Oral, NOAEL. Study followed intent of OECD 414.
	Result:	No effects.
	Species:	Rat.

Skin corrosion/irritation:	Not classified.	
Irritation Corrosion – Skin		
1,2,3-Propanetriol	**0.5 ml in vivo**	
	Result:	No effects.
	Species:	Rabbit.
	Test Duration:	24 hours.

Serious eye damage / eye irritation:	Not classified.	
Irritation Corrosion – Eye		
1,2,3-Propanetriol	**0.1 ml in vivo**	
	Result:	No effects.
	Species:	Rabbit.
	Test Duration:	7 days.

Specific target organ toxicity — single exposure	Not classified.

Specific target organ toxicity — repeated exposure	Not classified.	
1,2,3-Propanetriol	**167 mg/m³ inhalation, NOAEL:**	Study followed intent of OECD 413.
	Result:	No effects.
	Species:	Rat.
	Test Duration:	13 weeks
	5040 mg/kg bw/day Dermal, NOEL	
	Result:	No effects.
	Species:	Rabbit.
	Test Duration:	45 weeks.
	8000-10000 mg/kg bw/day Oral, NOAEL,	Study followed Intent of OECD 452.
	Result:	No effects.
	Species:	Rat.
Other Information	Not available.	

Section 12 Ecological Information

Ecotoxicological data

Components		Species	Test Results
1,2,3-Propanetriol (56-81-5)	EC3 (TT)	Pseudomonas putida	> 10 000 mg/L, 16 hours
Aquatic - Algae	EC3 (TT)	Green algae (Scenedesmus quadricauda)	> 10 000 mg/L, 8 days
Aquatic - Crustacea	LC50	Water flea (Daphnia magna)	> 10 000 mg/L, 24 hours
Aquatic - Fish	LC50	Rainbow trout, Donaldson trout (Oncorhynchus mykiss)	54 000 mg/L, 96 hours

Ecotoxicity:	Not classified as an environmental hazard.
Persistence & degradability:	Even though this product is readily biodegradable, it must not be indiscriminately discarded into the environment.

Biodegradability			
Percent degradation (Aerobic biodegradation-ready)	1,2,3-Propanetriol	• **Result:** • **Species:** • **Test Duration:**	• Readily biodegradable • Activated sludge, • Industrial 24 hours
Bioaccumulative potential	The product is not bioaccumulating.		
Octanol/water partition coefficient log Kow:	1,2,3-Propanetriol	–1.75	
Mobility in soil:	Not available.		
Volatility — Henry's law	1,2,3-Propanetriol	**Calculation result:**	0.000000006 atm m^3/mol at 25 °C
Other adverse effects:	None known.		

Section 13 Disposal Considerations

Disposal methods:	• Do not allow this material to drain into sewers/water supplies. • Dispose of contents/ container in accordance with local/regional/national/international regulations.
Waste from residue/unused products:	Dispose of in accordance with local regulations.
Contaminated packaging:	Offer rinsed packaging material to local recycling facilities.

Section 14 Transport Information

DOT	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.

Section 15 Regulatory Information

US federal regulations

Federal regulations:	• This product is not known to be 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:	None.

Superfund Amendments and Reauthorization Act of 1988 (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	No.

Inventory status

Countries or regions	Inventory Name	On inventory: Yes/No*
Australia	Australian inventory of Chemical Substances (AICS).	Yes
Canada	Domestic Substances List (DSL).	Yes
Canada	Non-Domestic Substances List (NDSL).	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
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 countries.**

State regulations

US – California:	This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.	
US – Minnesota **Haz Sub: Hazardous substance**	1,2,3-PROPANETRIOL (CAS 56-81-5)	Hazardous substance.
US – New Jersey **RTK –Substances: Listed substance**	1,2,3-PROPANETRIOL (CAS 56-81-5)	Listed.
US – Pennsylvania **RTK – Hazardous Substances**	1,2,3-PROPANETRIOL (CAS 56-81-5)	Listed.

Section 16 Other Information

Further information:	HMIS® is a registered trade and service mark of the NPCA.
	Meets the criteria of Paragraph 9 of Annex V of the REACH EC Regulation No. 987/2008 and is therefore exempted from the obligation to register under REACH.
HMIS® ratings:	Health: 0
	Flammability: 1
	Physical hazard: 0
NFPA ratings:	Health: 0
	Flammability: 1
	Instability: 0

Disclaimer of Liability

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of the results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. User of any chemical should satisfy themselves that the conditions and methods of use assure that the chemical is used safely. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO THE INFORMATION CONTAINED HEREIN OR THE CHEMICAL TO WHICH THE INFORMATION REFERS. It is the responsibility of the user to comply with all applicable federal, state, local laws and regulations.

10920 Madison Avenue | Cleveland | Ohio | 44102 | (216) 281-1100 | Fax (216) 281-0228