

MATERIAL SAFETY DATA SHEET

Poly(ethylene glycol), average M.W. 400

Section 1 - Chemical Product and Company Identification

MSDS Name:	Poly(ethylene glycol), average M.W. 400
Synonyms:	PEG
Company Identification: (INDIA)	Veritas House, 70 Mint Road, Fort, Mumbai - 400 001. INDIA
For information in the INDIA, call:	Tel: +91 - 22 - 2275 5555 / 6184 0000, Fax: +91 - 22 - 2275 5556 / 6184 0001

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#	Hazard Symbols:	Risk Phrases:
25322-68-3	Polyethylene glycol		unlisted		

Text for R-phrases: see Section 16

Hazard Symbols:	None listed
Risk Phrases:	None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Not available

Potential Health Effects

Eye:	Causes mild eye irritation.
Skin:	Causes mild skin irritation.
Ingestion:	May cause irritation of the digestive tract.
Inhalation:	May cause respiratory tract irritation. May be harmful if inhaled.
Chronic:	

Section 4 - First Aid Measures

Eyes:	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin:	Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion:	Get medical aid. Wash mouth out with water.
Inhalation:	Remove from exposure and move to fresh air immediately. Get medical aid.
Notes to Physician:	Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
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Extinguishing Media:	Use water spray, dry chemical, carbon dioxide, or chemical foam.
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Section 6 - Accidental Release Measures

General Information:	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:	Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling:	Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Avoid ingestion and inhalation.
Storage:	Store in a cool, dry place. Store in a tightly closed container. Store under an inert atmosphere.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:	Use adequate ventilation to keep airborne concentrations low.
Exposure Limits	
	CAS# 107-21-1:
	United Kingdom, WEL - TWA: 20 ppm TWA (vapor); 52 mg/m ³ TWA (vapor); 10 mg/m ³ TWA (particulate) United Kingdom, WEL - STEL: 40 ppm STEL (vapor); 104 mg/m ³ STEL (vapor); 30 mg/m ³ STEL (particulate)
	Belgium - TWA: 20 ppm VLE; 52 mg/m ³ VLE Belgium - STEL: 40 ppm VLE; 104 mg/m ³ VLE
	France - VME: 20 ppm VME; 52 mg/m ³ VME France - VLE: 40 ppm VLE (vapor); 104 mg/m ³ VLE (vapor)
	Germany: 10 ppm TWA; 26 mg/m ³ TWA Germany: skin notation
	Malaysia: 39.4 ppm Ceiling (aerosol); 100 mg/m ³ Ceiling (aerosol)
	Netherlands: 40 ppm STEL; 104 mg/m ³ STEL Netherlands: 20 ppm MAC (fume); 52 mg/m ³ MAC (fume); 10 mg/m ³ MAC (droplets)
	Russia: 5 mg/m ³ TWA (aerosol)
	Spain: 20 ppm VLA-ED; 52 mg/m ³ VLA-ED Spain: 40 ppm VLA-EC; 104 mg/m ³ VLA-EC
	CAS# 25322-68-3:
	Germany: 1000 mg/m ³ TWA (inhalable fraction)
	Netherlands: 1000 mg/m ³ MAC

Personal Protective Equipment	
Eyes:	Wear chemical splash goggles.
Skin:	Wear appropriate protective gloves to prevent skin exposure.
Clothing:	Wear appropriate protective clothing to prevent skin exposure.
Respirators:	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State:	Clear liquid
Color:	APHA: 15 max
Odor:	mild odor
pH:	5.0-7.0 (10% in water)
Vapor Pressure:	<0.01mmHg @20 deg C
Viscosity:	110-125 mPa.s @20 deg C
Boiling Point:	> 200 deg C @760mmHg (> 392.00°F)
Freezing/Melting Point:	4 - 8 deg C
Autoignition Temperature:	Not available
Flash Point:	235 deg C (455.00 deg F)
Explosion Limits: Lower:	Not available
Explosion Limits: Upper:	Not available
Decomposition Temperature:	Not available
Solubility in water:	Soluble
Specific Gravity/Density:	1.128
Molecular Formula:	--
Molecular Weight:	--

Section 10 - Stability and Reactivity

Chemical Stability:	Hygroscopic: absorbs moisture or water from the air.
Conditions to Avoid:	Incompatible materials, exposure to moist air or water.
Incompatibilities with Other Materials	Strong oxidizing agents, strong acids, strong bases.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide.
Hazardous Polymerization	Will not occur.

Section 11 - Toxicological Information

RTECS#:	CAS# 107-21-1: KW2975000 CAS# 25322-68-3: TQ3500000 TQ3520000 TQ3560000 TQ3580000 TQ3600000 TQ3610000 TQ3620000 TQ3630000 TQ3650000 TQ3675000 TQ3700000 TQ3800000 TQ3850000 TQ4025000 TQ4026000 TQ4027000 TQ4028000 TQ4030000 TQ4040000 TQ4041000 TQ4050000 TQ4070000 TQ4100000 TQ4105000 TQ4110000 TQ4950000 TQ5090000 TR1579850 ZD2465300
LD50/LC50:	RTECS: CAS# 107-21-1: Draize test, rabbit, eye: 500 mg/24H Mild; Draize test, rabbit, eye: 100 mg/1H Mild; Draize test, rabbit, eye: 0.012 ppm/3D; Draize test, rabbit, eye: 1440 mg/6H Moderate; Oral, mouse: LD50 = 5500 mg/kg; Oral, rat: LD50 = 4700 mg/kg; Skin, rabbit: LD50 = 9530 uL/kg; RTECS: CAS# 25322-68-3: Draize test, rabbit, eye: 500 mg/24H Mild;

	<p>Draize test, rabbit, eye: 100 uL Mild; Draize test, rabbit, eye: 500 mg Mild; Draize test, rabbit, eye: 500 mg/24H Mild; Draize test, rabbit, eye: 500 mg/24H Mild; Draize test, rabbit, eye: 500 mg Mild; Draize test, rabbit, eye: 500 mg/24H Mild; Draize test, rabbit, skin: 500 mg/24H Mild; Draize test, rabbit, skin: 500 mg/24H Mild; Draize test, rabbit, skin: 500 mg Mild; Oral, mouse: LD50 = 34 gm/kg; Oral, mouse: LD50 = 31 gm/kg; Oral, mouse: LD50 = 28915 mg/kg; Oral, mouse: LD50 = 36 gm/kg; Oral, rabbit: LD50 = 17300 mg/kg; Oral, rabbit: LD50 = 76 gm/kg; Oral, rabbit: LD50 = 14 gm/kg; Oral, rabbit: LD50 = 17300 mg/kg; Oral, rabbit: LD50 = 26800 mg/kg; Oral, rabbit: LD50 = 19 gm/kg; Oral, rabbit: LD50 = 28900 mg/kg; Oral, rabbit: LD50 = 76 gm/kg; Oral, rat: LD50 = 28 gm/kg; Oral, rat: LD50 = 31640 mg/kg; Oral, rat: LD50 = 27500 mg/kg; Oral, rat: LD50 = 22 gm/kg; Oral, rat: LD50 = 30200 mg/kg; Oral, rat: LD50 = 600 mg/kg; Oral, rat: LD50 = 30 gm/kg; Oral, rat: LD50 = 32 gm/kg; Oral, rat: LD50 = 1054 Other:</p>
Carcinogenicity:	<p>Ethylene glycol - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65. Polyethylene glycol - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.</p>
Other:	<p>The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.</p>

Section 12 - Ecological Information

Ecotoxicity:	<p>Daphnia: Daphnia: EC50 >53000 mg/l; .; . Fish: Fathead Minnow: LC50 = 87000 mg/l; .; . Fish: Bluegill/Sunfish: LC50 = 1700 mg/l; 96H; .</p>
Other:	<p>Do not empty into drains. Biodegradation: >80% (OECD 301E)</p>

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
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Shipping Name:	Not regulated.	Not regulated.	Not regulated.
Hazard Class:			
UN Number:			
Packing Group:			

USA RQ: CAS# 107-21-1: 5000 lb final RQ; 2270 kg final RQ

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phrases:

Safety Phrases:

- S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

- CAS# 107-21-1: 0
- CAS# 25322-68-3: 1

Canada

- CAS# 107-21-1 is listed on Canada's DSL List
- CAS# 25322-68-3 is listed on Canada's DSL List

US Federal

- TSCA
- CAS# 107-21-1 is listed on the TSCA Inventory.
- CAS# 25322-68-3 is listed on the TSCA Inventory.

Section 16 - Other Information

Text for R-phrases from Section 2

R 22 Harmful if swallowed.

MSDS Creation Date:	July 24, 2015
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Revision #0 Date	
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