

Material Safety Data Sheet

GLYCERIN / GLYCEROL 99.7% MIN.

MSDS No. 01-GLY997

Date of Preparation: 02/01

Revision: 1.4

Section 1 - Chemical Product and Company Identification

Product / Chemical Name: GLYCERIN / GLYCEROL 99.7% MIN. PURITY
Chemical Formula: C₃H₅(OH)₃
CAS Number: 56-81-5
HTS Code Number: 2905.45.0000
Other Designations: 1,2,3-TRIHIDROXYPROPANE, 1,2,3-PROPANETRIOL
Supplier: KIC Chemicals, Inc.
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New Paltz, NY 12561 U.S.A.
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CHEMTREC 24-HOUR EMERGENCY PHONE NUMBER: (800)-424-9300

Section 2 - Composition / Information on Ingredients

Ingredient:	CAS Number	% wt or % vol
GLYCEROL	56-81-5	99.7 % MINIMUM
WATER	7732-18-5	0.3% MAXIMUM

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
GLYCEROL	10 MG/M ³ (GLYCERIN MIST – TOTAL DUST) 5 MG/M ³ (GLYCERIN MIST - RESPIRAB LE FRACTION)	NDA	10 MG/M ³ (GLYCERIN MIST)	NDA	NDA	NDA	NDA

Section 3 - Physical and Chemical Properties

Physical State: LIQUID

Appearance and Odor: CLEAR, SWEET ODOR

Oxidizing Properties: CONTACT WITH STRONG OXIDIZING AGENTS SUCH AS CHROMIUM TRIOXIDE, POTASSIUM CHLORATE, OR POTASSIUM PERMANGANATE MAY PRODUCE AN EXPLOSION

Water Solubility at 25 °C: MISCIBLE WITH ALL PROPORTIONS

Ethanol Solubility at 25 °C: EASILY SOLUBLE

Boiling Point at 760 mm Hg: APPROX. 290 °C

Freezing/Melting Point: APPROX. 18 °C

Specific Gravity at 25 °C (H₂O=1, at 4 °C): 1.2606

pH: NEUTRAL TO LITMUS

Section 4 - Fire-Fighting Measures

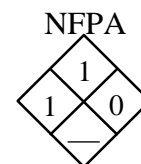
Flash Point: APPROX. 349 °F (176 °C)

Flash Point Method: OPEN CUP

Autoignition Temperature: 698 °F (370 °C)

Flammability Classification: NON-FLAMMABLE

Extinguishing Media: FOAM, CARBON DIOXIDE, WATER, OR DRY CHEMICAL



Unusual Fire or Explosion Hazards: KEEP AWAY FROM STRONG ACIDS OR OXIDIZING MATERIALS

Fire-Fighting Instructions: INDIVIDUALS SHOULD PERFORM ONLY THOSE FIRE-FIGHTING PROCEDURES FOR WHICH THEY HAVE BEEN TRAINED. WATER OR FOAM MAY CAUSE FROTHING WHEN APPLIED TO FLAMMABLE LIQUIDS HAVING FLASH POINTS ABOVE 212 °F (100 °C). THE REMARK IS INCLUDED ONLY AS A PRECAUTION AND DOES NOT MEAN THAT WATER OR FOAM SHOULD NOT OR COULD NOT BE USED IN FIGHTING FIRES IN SUCH LIQUIDS. THE FROTHING MAY BE QUITE VIOLENT AND COULD ENDANGER THE LIFE OF THE FIREFIGHTER PARTICULARLY WHEN SOLID STREAMS ARE DIRECTED INTO THE HOT BURNING LIQUID. ON THE OTHER HAND, WATER SPRAY CAREFULLY APPLIED HAS FREQUENTLY BEEN USED WITH SUCCESS IN EXTINGUISHING SUCH FIRES BY CAUSING THE FROTHING TO OCCUR ONLY ON THE SURFACE AND THIS FOAMING ACTION BLANKETS AND EXTINGUISHES THE FIRE. (NFPA 325M-1984)

Fire-Fighting Equipment: BECAUSE FIRE MAY PRODUCE TOXIC THERMAL DECOMPOSITION PRODUCTS, WEAR A SELF-CONTAINED BREATHING APPARATUS (SCBA) WITH A FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR POSITIVE-PRESSURE MODE.

Section 5 - Stability and Reactivity

Stability: STABLE

Polymerization: WILL NOT OCCUR

Chemical Incompatibilities: STRONG OXIDIZERS AND STRONG ACIDS.

Conditions to Avoid: AVOID EXCESSIVE HEAT AND OPEN FLAMES.

Hazardous Decomposition Products: CORROSIVE FUMES OF ACROLEIN, CARBON MONOXIDE, AND CARBON DIOXIDE.

Section 6 - Health Hazard Information

Health Protection

Primary Entry Routes: EYES, MOUTH

Eyes: WEAR SAFETY GLASSES WHICH MEET THE SPECIFICATIONS OF ANSI STANDARD Z87.1 WHENEVER THERE IS THE POSSIBILITY OF SPLASHING OR OTHER CONTACT WITH THE EYES.

Mouth: NONE

Skin: WEAR GLOVES AND PROTECTIVE CLOTHING WHICH ARE IMPERVIOUS TO GLYCERIN DURING THE PERIOD OF EXPOSURE IF THERE IS POTENTIAL FOR REPEATED SKIN CONTACT.

Respiratory: USE OSHA.NIOSH APPROVED EQUIPMENT WHEN EXPOSED TO MIST.

Carcinogenicity: IARC, NTP, AND OSHA DO NOT LIST GLYCERIN AS A CARCINOGEN.

Emergency and First Aid Procedures

Eye Contact: FLUSH THE CONTAMINATED EYE (S) WITH COOL WATER FOR AT LEAST 15 MINUTES, HOLDING THE EYELID OPEN.

Skin Contact: WASH SKIN WITH PLENTY OF WATER.

Ingestion: GIVE 3-4 GLASSES OF WATER & INDUCE VOMITING UNTIL VOMITUS IS CLEAR. DO NOT INDUCE VOMITING IF VICTIM IS UNCONSCIOUS OR CONVULSING. SEEK IMMEDIATE MEDICAL ATTENTION.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Section 7 - Spill, Leak, and Disposal Procedures

Spill /Leak Procedures: WIPE UP WITH CLOTH AND WASH AREA WITH WATER

Regulatory Requirements: FOLLOW APPLICABLE OSHA REGULATIONS (29 CFR 1910.120). LISTED IN TSCA INVENTORY.

Disposal: FOLLOW APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS FOR PROPER DISPOSAL.

Container Cleaning and Disposal: CONTAINER IS HAZARDOUS WHEN EMPTIED – ALL PRECAUTIONS ON THIS MSDS MUST BE OBSERVED.

Ecological Information: KEEP GLYCERIN AWAY FROM WATERWAYS AND SEWERS.

EPA Regulations:

RCRA Hazardous Waste Classification: Not classified

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not Listed

Section 8 - Exposure Controls / Personal Protection

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or nonroutine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA.

Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Special Precautions and Comments

Handling Precautions: ASSUME GENERAL SAFE HANDLING PRECAUTIONS.

Storage Requirements: HYGROSCOPIC IN CHARACTER – AVOID EXPOSURE TO AIR.

DOT Transportation Data (49 CFR 172.101): Not regulated

Prepared By: ERIC KORT

Revision Notes: 1.0 – Initial release

- 1.1 – Reviewed, updated address info (06/2007)
- 1.2 – Reviewed, added HTS code # (06/2008)
- 1.3 - Updated No Change – DRK (June 2010)
- 1.4 - Updated No Change –BTM (September 2013)

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***** NDA = No Data Available *****