MATERIAL SAFETY DATA SHEET

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GLYCEROL (GLYCERINE), AR GRADE

SECTION 1: PRODUCT IDENTIFICATION

Product Name: GLYCEROL (Glycerine), AR Grade.
Product Code: 597.
CAS#: 56-81-5.
Synonym: 1,2,3-Propanetriol; 1,2,3-Trihydroxypropane; Glyceritol.
Chemical Name: 1,2,3-Propanetriol.
Chemical Formula: C₃H₈O₃.
Formula Weight: 92.09.

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Composition: Name: Glycerol. Toxicological Data on Ingredients: Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. This substance is not classified as dangerous according to Directive 67/548/EEC.

SECTION 3: HAZARDS IDENTIFICATION

Potential Acute Health Effects: Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Potential Chronic Health Effects: CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated exposure to this product may result in damage to the vascular

systems.

SECTION 4: FIRST AID MEASURES

Eye Contact: Flush eyes with water as a precaution.
Skin Contact: Wash off with soap and plenty of water.
Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration.
Serious Inhalation: Not Available.
Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water.
Serious Ingestion: Not available.

SECTION 5: FIRE FIGHTING MEASURES

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Special hazards arising from the substance or mixture Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Sodium oxides Advice for firefighters Wear self contained breathing apparatus for firefighting if necessary

SECTION 6: ACCIDENTAL RELEASE MEASURES

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Personal precautions and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas. **Environmental precautions** Do not let product enter drains. **Methods and materials for containment and cleaning up** Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Precautions: Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust. **Storage:** Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls

Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance Form	: Liquid, viscous
Odour	: Not available
Taste	: Not available
Molecular Weight	: Not available
Colour	: Not available
pH	: Not available
Boiling Point	: Not available
Melting Point	: Not available
Critical Temperature	: Not available
Specific Density	: Not Available
Vapor Pressure	: Not Available
Vapor Density	: Not available
Volatility	: Not Available
Odor Threshold	: Not Available
Water/Oil Dist. Coeff.	: Not Available
lonicity (in Water)	: Not Available

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Dispersion Properties Solubility : Not Available : Freely soluble in water.

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Avoid excessive heat and light.
Incompatibility with various substances: Strong oxidizing agents.
Corrosivity: Non-corrosive in presence of glass.
Special Remarks on Reactivity: Not Available.
Special Remarks on Corrosivity: Not Available.
Polymerization: Not Available.

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Entry: Ingestion, Inhalation. Toxicity to Animals: LD₅₀: Oral - Rat – 12,600 mg/kg. LD₅₀: Dermal - rabbit - > 10,000 mg/kg Chronic Effects on Humans: Not Available. Other Toxic Effects on Humans: Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of inhalation. Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not Available. Special Remarks on other Toxic Effects on Humans: Not Available.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not available.
BOD and COD: Not available.
Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: Not Available.
Special Remarks on the Products of Biodegradation: Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

UN number:			
ADR/RID:	IMDG:	IATA:	
UN proper shipping name			
ADR/RID:			
IMDG:			
IATA:			
Transport hazard class (es):			
ADR/RID:	IMDG:		IATA:
Packaging group:			
ADR/RID:	IMDG:		IATA:



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Environmental hazards: ADR/RID:	IMDG Marine pollutant:	ΙΑΤΑ:		
SECTION 15: OTHER REGULATORY INFORMATION				
Other Regulations: Not avail Other Classifications: WHMIS (Canada): Not contro DSCL (EEC): Not Applicable.	olled under WHMIS (Canada). according to the EU regulations. Not ap	plicable.		
Gloves, Lab coat, Safety glass	ses, Dust respirator - be sure to use an a	pproved/certified respirator or equiv	alent	

SECTION 16: OTHER INFORMATION

References: Not available. Other Special Considerations: Not available.

The information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. The information is offered solely for user's obligation to investigate and determine the suitability of the information for their particular purpose.