

Safety Data Sheet

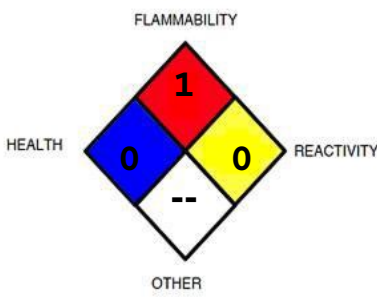
Section 1: Product & Company Identification

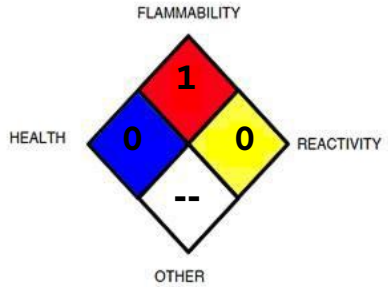
Product Name:	Glycerol, USP Grade
Product #:	G-1228
Synonyms:	-
Supplier:	AG Scientific Holdings, LLC 9950 Scripps Lake Drive, Suite 104 San Diego, CA 92131 Tele# + 858-452-9925
Emergency Tele#:	ChemTel, Tele# in USA 1-800-255-3924, International 1-813-248-0585

Section 2: Composition / Information on Ingredients

Component	CAS#	EC #	% Composition
Glycerol	56-81-5	200-289-5	≥ 99

Section 3: Hazards Identification

Symbols	N/A
HMIS Classification	<p style="text-align: center;">FLAMMABILITY</p>  <p style="text-align: center;">HEALTH REACTIVITY</p> <p style="text-align: center;">OTHER</p>

NFPA Classification	
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Section 4: First Aid Measures

General Overview:	Consult a doctor and show this safety data sheet.
Inhalation:	Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
Skin:	Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.
Eyes:	Flush with copious amounts of water for at least 15 minutes. Consult a doctor.
Ingestion:	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.
	See section 11 for more detailed information on health effects & symptoms.

SECTION 5: Fire Fighting Measures

Flammability of the product:	No data available
Extinguishing Media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Hazardous thermal (de)composition products:	Carbon oxides
Special Fire Fighting Procedures:	Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.
Flash Point:	160°C

Section 6: Accidental Release Measures




Personal Precautions:	Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust, or gas.
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Environmental Precautions:	Do not let product enter drains.
Methods for Clean-up:	Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

SECTION 7: Handling & Storage

Storage:	Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Keep in a dry place. Hygroscopic. Store at room temperature.
Handling:	Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

SECTION 8: Exposure controls / Personal Protection

Respiratory Protection:	 <p>Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.</p>
Skin and Body:	  <p>Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Wear appropriate protective clothing. Complete suit protecting against chemicals, the type of protective equipment must be selected according to the</p>

	concentration and amount of the dangerous substance at the specific workplace.
Eyes:	 <p>Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).</p>
Ventilation/Engineering Measures:	Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.
Hygiene:	Handle in accordance with good industrial hygiene and safety practice.
Other:	Components with control parameters: Glycerol TWA: 10 mg/m ³ OSHA PEL: 10 mg/m ³

SECTION 9: Physical and Chemical Properties

Appearance & Odor:	Colorless liquid
Formula	C ₃ H ₈ O ₃
Molecular Wt.	92.1
Melting Pt.	18°C
Boiling Pt.	290°C
Relative Density:	1.25 g/mL
Vapor Pressure:	No data available
Evaporation Rate:	No data available
Vapor Density:	No data available
Solubility:	Water
Flash Point:	160°C
Autoignition Temp:	No data available

SECTION 10: Stability and Reactivity

Stability:	Stable under recommended storage conditions.
Hazardous decomposition products:	No data available

Materials to Avoid:	Strong oxidizing agents
Conditions to avoid:	No data available

SECTION 11: Toxicological Information

RTECS#:	N/A
ACUTE Toxicity:	LD50 Oral = 12,600 mg/kg (Rat) LD50 Dermal = >10,000 mg/kg (Rabbit) LD50 Inhalation = 570 mg/m ³ 1h (Rat)
CHRONIC Toxicity:	N/A
Chronic Exposure: Carcinogen: Mutagen: Teratogen: Reproductive:	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC. AGGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, potential human carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated human carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as known or potential human carcinogen by OSHA. EPA: No classification on carcinogenic data is available from EPA

SECTION 12: Ecological Information

Ecotoxicity:	Freshwater Fish: 51 -57 mL/L LC50 96h Water Flea: 500 mg/L EC50 > 24h
Mobility:	Log Pow = -1.76
Persistence and degradability:	No data available
Bioaccumulative potential:	No data available
Other adverse effects:	No data available
Corrosivity Characteristic:	No data available
General Notes:	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

SECTION 13: Disposal Considerations

Residue Waste or Unused product:	Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management
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	options. State and local disposal regulations may differ from federal disposal regulations.
Contaminated Packaging:	Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14: Transportation Information

UN ID#:	N/A
ADR / RID (LAND):	Not regulated
DOT regulations:	Not regulated
IMDG/IMO (SEA):	Not regulated
IATA/DGR (AIR):	Not regulated
Special Provisions:	N/A

SECTION 15: Regulatory Information

Health Phrases:	Not hazardous
Risk Phrases:	P101 If medical advice is needed, have product container or label at hand P102 Keep out of reach of children. P501 Dispose of contents/ container to an approved waste disposal plant
Safety Phrases:	N/A
EU Regulations:	N/A
US Regulations:	TSCA: Listed California Proposition 65: No products were found Massachusetts State Right to Know: Listed New Jersey State Right to Know: Listed Pennsylvania State Right to Know: Listed Rhode Island State Right to Know: Listed
U.S. Federal Regulations:	SARA 302/304 emergency planning and notification: No products were found. SARA 311/312 MSDS distribution-chemical inventory-hazard identification: Acute Health Hazard, Chronic Health Hazard SARA 313 toxic chemicals notification and release reporting: No products were found. Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found. Clean Air Act (CAA) 112 accidental release prevention: No products were found. Clean Air Act (CAA) 112 regulated flammable substances: No products were found. Clean Air Act (CAA) 112 regulated toxic substances: No products were found. OSHA: No products were found.
WHMIS (Canada):	DSL: Listed



SECTION 16: Other Information

LIABILITY STATEMENT: *The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. AG Scientific shall not be held liable for any damages resulting from handling or from contact with the above product. AG Scientific products are for research purposes only. Not for human use or consumption.*