



Material Safety Data Sheet

WHMIS (Pictograms)	WHMIS (Classification)	Protective Clothing
	Not controlled under WHMIS (Canada).	

Section 1. Chemical Product and Company Identification

Product Name/ Trade name	Glycerine USP FCC 99.5%	Code	283801
Supplier	Saffire Blue Inc. 1444 Bell Mill Road Tillsonburg, ON N4G 4G9 Canada Tel: 519-286-0295 • Toll Free: 877-248-1115 Order Online: SaffireBlue.ca	CAS #	56-81-5
Synonym	Glycerin, Glycerol, 1,2,3-Propanetriol	DSL	C E P A D S L : 1,2,3-Propanetriol; Water
Chemical Name	Not applicable.	CI#	Not available.
Chemical Family	Not available.	Validation Date	1/24/2003
Chemical Formula	C3-H8-O3	Print Date	9/1/2005
Manufacturer		In Case of Emergency	CHEMTREC: 1-800-424-9300
Material Uses	Not available.		

Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits	LC ₅₀ /LD ₅₀
No hazardous ingredient.				

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 (lung irritant).
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys. Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact	Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

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Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Have conscious person drink several glasses of water or milk. Seek medical attention immediately.
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Section 5. Fire Fighting Measures

Products of Combustion	These products are carbon oxides (CO, CO ₂). aldehydes acrolein
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet. Qualified persons wearing full fire-fighting suits and approved/certified self-contained breathing apparatus.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Contact with CrO ₃ , potassium chlorate or potassium permanganate may produce an explosive mixture Flammable in presence of open flames and sparks.

Section 6. Accidental Release Measures

Small Spill and Leak	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill and Leak	Combustible material. Keep away from heat. Keep away from sources of ignition. Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

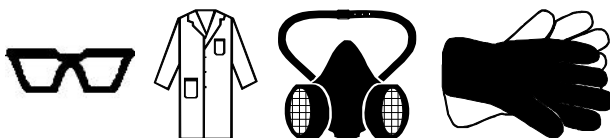
Section 7. Handling and Storage

Precautions	Keep away from heat. Keep away from sources of ignition. Do not breathe gas, fumes, vapor or spray. Keep away from incompatibles such as oxidizing agents.
Incompatibility	Reactive with oxidizing agents.
Storage	Keep container dry. Keep in a cool place. 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

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	
<i>Eyes</i>	Safety glasses.
<i>Body</i>	Lab coat.
<i>Respiratory</i>	No special protective clothing is required. Avoid inhalation of product.
<i>Hands</i>	Gloves.
<i>Feet</i>	Not applicable.

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Protective Clothing
(Pictograms)

Exposure Limits

1,2,3-PropanetriolTWA: 10 (mg/m³) from ACGIH (TLV) [United States] Inhalation Respirable.TWA: 10 (mg/m³) from OSHA (PEL) [United States] Inhalation Respirable.

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid. (Viscous liquid.)	Odor	Odorless.
Molecular Weight	Not applicable.	Taste	Sweet.
pH (1% Soln/Water)	Not available.	Color	Colorless.
Boiling/Condensation Point	290°C (554°F)		
Melting/Freezing Point	18°C (64.4°F)		
Critical Temperature	The lowest known value is 452°C (845.6°F) (1,2,3-Propanetriol).		
Instability Temperature	Not available.		
Specific Gravity	1.2636 (Water = 1)		
Vapor Pressure	The highest known value is <0 kPa (@ 20°C) (1,2,3-Propanetriol).		
Vapor Density	The highest known value is 3.17 (Air = 1) (1,2,3-Propanetriol).		
Volatility	Not available.		
Evaporation Rate	Not available.		
Odor Threshold	Not available.		
Viscosity	Not available.		
LogK _{ow}	Not available.		
Ionicity (in Water)	Amphoteric.		
Dispersion Properties	See solubility in water, methanol, acetone.		
Solubility	Easily soluble in cold water, hot water, methanol, acetone.		
The Product is:	May be combustible at high temperature.		
Auto-ignition Temperature	370°C (698°F)		
Flash Points	CLOSED CUP: 199°C (390.2°F).		
Flammable Limits	Not available.		
Fire Hazards in Presence of Various Substances	Flammable in presence of open flames and sparks, of heat, of oxidizing materials. Non-flammable in presence of shocks, of reducing materials, of combustible materials, of organic materials, of metals, of acids, of alkalis, of moisture.		
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. Explosive in presence of oxidizing materials.		

Section 10. Stability and Reactivity

Stability	The product is stable.
Conditions of Instability	Not available.
Incompatibility with Various Substances	Reactive with oxidizing agents.
Corrosivity	Not available.
Hazardous Decomposition Products	Carbon dioxide Carbon monoxide Aldehydes Acrolein
Special Remarks on Reactivity	Sodium hypochlorite
Special Remarks on Corrosivity	Not available.

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 4090 mg/kg [Mouse]. Acute dermal toxicity (LD50): 10946 mg/kg (Rabbit) (Calculated value for the mixture).
Acute Effects on Humans	<p><i>Eyes</i> Slightly hazardous in case of eye contact (irritant).</p> <p><i>Skin</i> Sensitization of the product: Not available. Slightly hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.</p> <p><i>Inhalation</i> Slightly hazardous in case of inhalation (lung irritant).</p> <p><i>Ingestion</i> Hazardous in case of ingestion.</p>
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys. Repeated or prolonged exposure to the substance can produce target organs damage.
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.
BOD5 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	The product itself and its products of degradation are not toxic.
Special Remarks on the Products of Biodegradation	Not available.

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Section 13. Disposal Considerations

Waste Information	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Waste Stream	Not available.

Section 14. Transport Information

TDG Classification Not controlled under TDG (Canada).



PIN Not applicable.

Maritime Transportation Not available.

Special Provisions for Transport Not applicable.

Section 15. Other Regulatory Information and Pictograms

WHMIS (Classification) Not controlled under WHMIS (Canada).



Regulatory Lists CEPA DSL: 1,2,3-Propanetriol; Water

Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications

HCS (U.S.A.) Class: Target organ effects.

USA Regulatory Lists

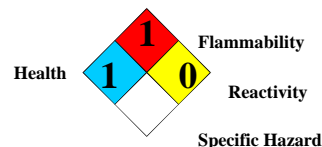
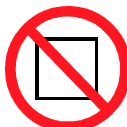
TSCA 8(d) H and S data reporting: 1,2,3-Propanetriol

DSCL (EEC) R16- Explosive when mixed with oxidizing substances.

International Regulations Lists No products were found.

Hazardous Material Information System (U.S.A.)

Health	*	0
Flammability		0
Reactivity		0
Personal Protection		g

National Fire Protection Association (U.S.A.)**DOT (U.S.A) (Pictograms)****DSCL (Europe) (Pictograms)**

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ADR (Europe)
(Pictograms)**Section 16. Other Information****References** -Manufacturer's Material Safety Data Sheet.**Other Special
Considerations** Not available.**Validated by Regulatory affairs on 1/24/2003.****Verified by Regulatory affairs.****Printed 9/1/2005.****Information Contact** Saffire Blue Inc.
1444 Bell Mill Road
Tillsonburg, ON N4G 4G9 Canada
Tel: 519-286-0295 • Toll Free: 877-248-1115**Notice to Reader**

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