



a xylem brand

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product identifier Glycerol Standard - All Concentrations
Version # 01
Issue date 07-April-2014
Revision date -
Supersedes date -
CAS # Mixture
Product code 7141, 7142
Product use Analysis Standard/Reagent
Manufacturer information YSI, Inc
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 CHEMTREC (US/Canada) (800) 424-9300
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 (Collect calls accepted)

2. Hazards Identification

Potential health effects

Eyes Health injuries are not known or expected under normal use.
Skin Health injuries are not known or expected under normal use.
Inhalation Health injuries are not known or expected under normal use.
Ingestion Health injuries are not known or expected under normal use.

Potential environmental effects Ecological injuries are not known or expected under normal use.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Sodium Benzoate	532-32-1	< 1
Dipotassium EDTA	25102-12-9	< 1
Glycerin	56-81-5	< 1
Water	7732-18-5	97 - 100

4. First Aid Measures

First aid procedures

Eye contact Rinse with water. Get medical attention if irritation develops and persists.
Skin contact Rinse skin with water/shower. Get medical attention if irritation develops and persists.
Inhalation If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Ingestion Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.

General advice If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable properties No unusual fire or explosion hazards noted. Not flammable by WHMIS criteria.

Extinguishing media

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Protection of firefighters	
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Protective equipment for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
Explosion data	
Sensitivity to static discharge	Not available.
Sensitivity to mechanical impact	Not available.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. For personal protection, see section 8 of the MSDS.
Environmental precautions	Do not contaminate water.
Methods for containment	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.
Methods for cleaning up	Should not be released into the environment. This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the MSDS.

7. Handling and Storage

Handling	Use care in handling/storage. Handle and open container with care. Observe good industrial hygiene practices.
Storage	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the MSDS).

8. Exposure Controls / Personal Protection

Occupational exposure limits

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Glycerin (CAS 56-81-5)	TWA	10 mg/m ³	Mist.

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Glycerin (CAS 56-81-5)	TWA	3 mg/m ³ 10 mg/m ³	Respirable mist. Mist.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Glycerin (CAS 56-81-5)	TWA	10 mg/m ³	Mist.

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Glycerin (CAS 56-81-5)	TWA	10 mg/m ³	Mist.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Glycerin (CAS 56-81-5)	PEL	5 mg/m ³ 15 mg/m ³	Respirable fraction. Total dust.

Engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

Eye / face protection If contact is likely, safety glasses with side shields are recommended.

Skin protection Wear suitable protective clothing.

Respiratory protection No personal respiratory protective equipment normally required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

9. Physical & Chemical Properties

Appearance Not available.

Physical state Liquid.

Form Liquid.

Color Not available.

Odor Not available.

Odor threshold Not available.

pH 6.5 - 7.5

Vapor pressure Equivalent to water

Vapor density Equivalent to water vapor

Boiling point 212 °F (100 °C)

Melting point/Freezing point Not available.

Solubility (water) Infinitely soluble

Specific gravity 1

Flash point Not available.

Flammability limits in air, upper, % by volume Not available.

Flammability limits in air, lower, % by volume Not available.

Auto-ignition temperature Not available.

10. Chemical Stability & Reactivity Information

Chemical stability Material is stable under normal conditions.

Conditions to avoid Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products No hazardous decomposition products are known.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

11. Toxicological Information

Acute effects Not classified.

Local effects Direct contact with eyes may cause temporary irritation. Prolonged skin contact may cause temporary irritation.

Chronic effects Not expected to be hazardous by WHMIS criteria.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Reproductive effects This product is not expected to cause reproductive or developmental effects.

Symptoms and target organs Direct contact with eyes may cause temporary irritation.

12. Ecological Information

Ecotoxicological data

Components	Species	Test Results
Sodium Benzoate (CAS 532-32-1)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) > 100 mg/l, 96 hours
Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.	
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.	
Persistence and degradability	Not available.	
Partition coefficient		
Glycerin (CAS 56-81-5)		-1.76
Mobility in environmental media	This product is miscible in water.	

13. Disposal Considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

TDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

Canadian regulations	This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.
WHMIS status	Non-controlled

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information

NFPA ratings

Health: 0
Flammability: 0
Instability: 0

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.