



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product identifier YSI 2785 Glucose-Galactose Standard
Version # 01
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Revision date -
Supersedes date -
CAS # Mixture
Product code 2785
Product use Analysis Standard/Reagent
Manufacturer information YSI, Inc
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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.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Water	7732-18-5	60 - 100
D-Galactose	59-23-4	1 - 5
Glucose	50-99-7	0.5 - 1.5
Benzoic acid	65-85-0	0.1 - 1
Ethylenediamine tetraacetic acid	60-00-4	0.1 - 1

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 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	
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 sensitive.
Sensitivity to mechanical impact	Not sensitive.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. For personal protection, see section 8 of the MSDS.
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	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. 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.
Storage	DO NOT FREEZE. 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	No exposure limits noted for ingredient(s).
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	In case of insufficient ventilation, wear suitable respiratory equipment.

9. Physical & Chemical Properties

Appearance	Not available.
Physical state	Liquid.
Form	Liquid.
Color	Clear.
Odor	Odorless
Odor threshold	No data available.
pH	6.5 - 7.5
Vapor pressure	No data available.
Vapor density	No data available.
Boiling point	212 °F (100 °C)
Melting point/Freezing point	32 °F (0 °C) No data available.
Solubility (water)	Soluble.

Specific gravity	1
Flash point	No data available.
Flammability limits in air, upper, % by volume	No data available.
Flammability limits in air, lower, % by volume	No data available.
Auto-ignition temperature	No data available.
VOC	0.9
Evaporation rate	No data available.
Viscosity	No data available.
Partition coefficient (n-octanol/water)	No data available.
Other data	
Decomposition temperature	No data available.
Density	No data available.
Explosive limit - lower (%)	No data available.
Explosive limit - upper (%)	No data available.
Explosive properties	No data available.
Flammability (solid, gas)	Not applicable.
Oxidizing properties	No data available.

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	None known.
Hazardous decomposition products	No hazardous decomposition products are known.
Possibility of hazardous reactions	Polymerization will not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
Benzoic acid (CAS 65-85-0)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 0.026 mg/l, 1 Hours
<i>Oral</i>		
LD50	Rat	1700 mg/kg
Glucose (CAS 50-99-7)		
Acute		
<i>Other</i>		
LD	Rabbit	35 g/kg
Sensitization	Not classified.	
Local effects	Direct contact with eyes 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.	

12. Ecological Information

Ecotoxicological data

Components	Species	Test Results
Benzoic acid (CAS 65-85-0)		
Aquatic		
Fish	LC50	Western mosquitofish (<i>Gambusia affinis</i>) 180 mg/l, 96 hours
Ethylenediamine tetraacetic acid (CAS 60-00-4)		
Aquatic		
Crustacea	EC50	Water flea (<i>Daphnia magna</i>) 113 mg/l, 48 hours
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>) 34 - 62 mg/l, 96 hours
Persistence and degradability	Not available.	
Partition coefficient		
Benzoic acid (CAS 65-85-0)	1.87	
Glucose (CAS 50-99-7)	-3.24	
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.
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

Country(s) or region	Inventory name	On inventory (yes/no)*
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

HMIS® ratings

Health: 0
Flammability: 0
Physical hazard: 0

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.