



a xylem brand

# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Material name** YSI Dual Standard - Glucose and Lactate, All Concentrations  
**Version #** 01  
**Issue date** 15-January-2014  
**Revision date** -  
**Supersedes date** -  
**Product code** 2747, 2748, 7147  
**Manufacturer information** YSI, Inc  
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 CHEMTREC (International) 011 703-527-3887  
 (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
Glycine, N,N'-1,2-ethanediybis(N-carboxymethyl) dipotassium salt, dihydrate	25102-12-9	< 1
Glucose	50-99-7	< 1
Lithium (S) Lactate	27848-80-2	< 1
Sodium Benzoate	532-32-1	< 1
Water	7732-18-5	> 96

## 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

### Extinguishing media

**Suitable extinguishing media** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).  
**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Protective equipment for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Explosion data</b>	
<b>Sensitivity to static discharge</b>	Not available.
<b>Sensitivity to mechanical impact</b>	Not available.

## 6. Accidental Release Measures

<b>Personal precautions</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see Section 8 of the MSDS.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
<b>Methods for containment</b>	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.
<b>Methods for cleaning up</b>	Should not be released into the environment.  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 in original containers for re-use. For waste disposal, see section 13 of the MSDS.

## 7. Handling and Storage

<b>Handling</b>	Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear personal protective equipment. Wash thoroughly after handling.
<b>Storage</b>	Store in accordance with local/regional/national/international regulation. Store away from incompatible materials (See Section 10).

## 8. Exposure Controls / Personal Protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Engineering controls</b>	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.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	If contact is likely, safety glasses with side shields are recommended.
<b>Skin protection</b>	Wear suitable protective clothing. For prolonged or repeated skin contact use suitable protective gloves.
<b>Respiratory protection</b>	No personal respiratory protective equipment normally required.

## 9. Physical & Chemical Properties

<b>Appearance</b>	Not available.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Clear and colorless.
<b>Odor</b>	None.
<b>Odor threshold</b>	Not available.
<b>pH</b>	6.5 - 7.5

<b>Vapor pressure</b>	Equal to water.
<b>Vapor density</b>	Equal to water vapor.
<b>Boiling point</b>	212 °F (100 °C)
<b>Melting point/Freezing point</b>	Not available.
<b>Solubility (water)</b>	Infinitely soluble.
<b>Specific gravity</b>	Not available.
<b>Flash point</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Other data</b>	
<b>Explosive properties</b>	Not explosive.
<b>Flammability (solid, gas)</b>	Not applicable.

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	None known.
<b>Incompatible materials</b>	None known.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological Information

### Toxicological data

Components	Species	Test Results
Glucose (CAS 50-99-7)		
<b>Acute</b>		
OTHER		
LD	Rabbit	35 g/kg
<b>Acute effects</b>	Not classified.	
<b>Local effects</b>	May cause temporary irritation on skin or eye contact.	
<b>Chronic effects</b>	Not expected to be hazardous by WHMIS criteria.	
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Based on available data, the classification criteria are not met.	
<b>Mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Reproductive effects</b>	Based on available data, the classification criteria are not met.	
<b>Symptoms and target organs</b>	None known.	

## 12. Ecological Information

### Ecotoxicological data

Components	Species	Test Results
Sodium Benzoate (CAS 532-32-1)		
<b>Aquatic</b>		
Fish	LC50 Fathead minnow ( <i>Pimephales promelas</i> )	> 100 mg/l, 96 hours
<b>Ecotoxicity</b>	Not expected to be harmful to aquatic organisms.	
<b>Environmental effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.	
<b>Persistence and degradability</b>	Not available.	
<b>Partition coefficient</b>		
Glucose (CAS 50-99-7)		-3.24

### 13. Disposal Considerations

<b>Disposal instructions</b>	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.
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport Information

<b>TDG</b>	Not regulated as dangerous goods.
<b>IATA</b>	Not regulated as dangerous goods.
<b>IMDG</b>	Not regulated as dangerous goods.

### 15. Regulatory Information

<b>Canadian regulations</b>	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.
<b>WHMIS status</b>	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)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
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)	No
Korea	Existing Chemicals List (ECL)	No
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	No

\*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

<b>HMIS® ratings</b>	Health: 0 Flammability: 0 Physical hazard: 0
<b>NFPA ratings</b>	Health: 0 Flammability: 0 Instability: 0
<b>Disclaimer</b>	The information in the sheet was written based on the best knowledge and experience currently available.