

SAFETY DATA SHEET

1. Identification

1. Identification		
Product identifier	Dextrose/Lactate Calibration Standard – all concentrations	
Other means of identification		
Product code	2776; 2777	
Recommended use	Analysis Standard/Reagent	
Recommended restrictions	None known.	
Manufacturer / Importer / Supplie	er / Distributor information	
Company name	YSI, Inc	
Address	1700/1725 Brannum Lane	
Telephone	(937) 767-7241 MCD Sinta @usi com	
E-mail	MSDSinfo@ysi.com	
Emergency phone number	CHEMTREC (US/Canada)(800) 424-9300CHEMTREC (International)011 703-527-3887(Collect calls accepted)	
2. Hazard(s) identification		
Physical hazards	Not classified.	
Health hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		
Hazard symbol	None.	
Signal word	None.	
Hazard statement	The mixture does not meet the criteria for classification.	
Precautionary statement		
Prevention	Observe good industrial hygiene practices.	
Response	Wash hands after handling.	
Storage	Store away from incompatible materials.	
Disposal	Dispose of waste and residues in accordance with local authority requirements.	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information		

Not applicable.

3. Composition/information on ingredients

Mixtures

chemical name	CAS number	%
Dextrose	50-99-7	< 1
Glycine, N,N'-1,2-ethanediybis(N-carbo xymethyl) dipotassium salt, dihydrate	25102-12-9	< 1
Lithium (S) Lactate	27848-80-2	< 1
Sodium Benzoate	532-32-1	< 1
Water	7732-18-5	> 96

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.	
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.	
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.	

Ingestion	Rinse mouth. Get medical attention if symptoms occur.	
Most important symptoms/effects, acute and delayed	May cause temporary irritation on skin or eye contact.	
Indication of immediate medical attention and special treatment needed	Treat symptomatically.	
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.	
5. Fire-fighting measures		
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.	
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.	
Special protective equipment and precautions 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.	
General fire hazards	No unusual fire or explosion hazards noted.	
6. Accidental release meas	sures	
Personal precautions, protective equipment and	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out o low areas. Do not touch damaged containers or spilled material unless wearing appropriate	

Personal precautions, protective equipment and emergency procedures	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 SDS.
Methods and materials for containment and cleaning up	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. Prevent entry into waterways, sewer, basements or confined areas. 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.
Environmental precautions	Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS. Prevent further leakage or spillage if safe to do so. Do not contaminate water.
7. Handling and storage	

Precautions for safe handling	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.
Conditions for safe storage, including any incompatibilities	Store in accordance with local/regional/national/international regulation. Store away from incompatible materials (See Section 10).

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).		
Biological limit values	No biological exposure limits noted for the ingredient(s).		
Appropriate 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.		
Individual protection measures	s, such as personal protective equipment		
Eye/face protection	If contact is likely, safety glasses with side shields are recommended.		
Skin protection			
Hand protection	For prolonged or repeated skin contact use suitable protective gloves.		
Other	Wear suitable protective clothing.		
Respiratory protection	No personal respiratory protective equipment normally required.		
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.		
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.		

9. Physical and chemical properties

Appearance

Physical state Liquid.

Dextrose/Lactate Calibration Standard – all concentrations 918969 Version #: 01 Revision date: - Issue date: 13-February-2014

Form	Liquid.			
Color	Clear and colorless.			
Odor	None.			
Odor threshold	Not available.			
рН	6.5 - 7.5			
Melting point/freezing point	Not available.			
Initial boiling point and boiling range	212 °F (100 °C)			
Flash point	Not available.			
Evaporation rate	Not available.			
Flammability (solid, gas)	Not applicable.			
Upper/lower flammability or explosive limits				
Flammability limit - lower (%)	Not available.			
Flammability limit - upper (%)	Not available.			
Explosive limit - lower (%)	Not available.			
Explosive limit - upper (%)	Not available.			
Vapor pressure	(Equivalent to water)			
Vapor density	Not available.			
Relative density	1			
Solubility(ies)				
Solubility (water)	Infinitely soluble			
Partition coefficient (n-octanol/water)	Not available.			
Auto-ignition temperature	Not available.			
Decomposition temperature	Not available.			
Viscosity	(= water vapor)			
Other information				
Explosive properties	Not explosive.			

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	None known.
Incompatible materials	None known.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Do not ingest.		
Inhalation	Do not inhale this material.		
Skin contact	Direct contact may irritate.		
Eye contact	Direct contact with eyes may cause temporary irritation.		
Symptoms related to the physical, chemical and toxicological characteristics	None known.		
Information on toxicological offects			

Information on toxicological effects

Acute toxicity

Not classified.

Components	Species	Test Results	
Dextrose (CAS 50-99-7)			
Acute			
Other			
LD	Rabbit	35 g/kg	
Skin corrosion/irritation	Based on available data, the classification criteria a	are not met.	
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.		
Respiratory or skin sensitization	1		
Respiratory sensitization	Due to lack of data the classification is not possible		
Skin sensitization	Due to lack of data the classification is not possible.		
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.		
Carcinogenicity	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.		
Reproductive toxicity	Based on available data, the classification criteria a	are not met.	
Specific target organ toxicity - single exposure	Due to lack of data the classification is not possible	ı.	
Specific target organ toxicity - repeated exposure	Due to lack of data the classification is not possible.		
Aspiration hazard	Due to lack of data the classification is not possible		
Further information	This product has no known adverse effect on huma	an health.	
12. Ecological information			

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Ecotoxicity	Not expected to be harmful to aquatic organisms.			
Components		Species	Test Results	
Sodium Benzoate (CAS 532	32-32-1)			
Aquatic				
Fish	LC50	Fathead minnow (Pimephales promelas)> 100 mg/l, 96 hours	
Persistence and degradability	y No data is available on the degradability of this product.			
Bioaccumulative potential	No data available for this product.			
Partition coefficient n-octa Dextrose (CAS 50-99-7)	tanol / water (log Kow) -3.24			
Mobility in soil	Not available.			
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.			
13. Disposal considerations				
Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.			

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
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.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Not available. Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory information

US federal regulations

- TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
 - Not regulated.
- US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous No

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act Not regulated.

(SDWA)

US state regulations

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

- US. Pennsylvania Worker and Community Right-to-Know Law Not listed.
- US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

International Inventories

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)	No
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

16. Other information, including date of preparation or last revision

Issue date Revision date Version # NFPA Ratings 13-February-2014 -01

Disclaimer

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