



SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation of the mixture	YSI 2747-2748-7147 Dual Standard Glucose and Lactose
Registration number	-
Synonyms	None.
Product code	YSI 2747-2748-7147
Issue date	20-March-2015
Version number	01
Revision date	-
Supersedes date	-

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Analysis Standard/Reagent
Uses advised against	None known.

1.3. Details of the supplier of the safety data sheet

Supplier

Company name	YSI, a Xylem brand
Address	1700/1725 Brannum Lane Yellow Springs, Ohio 45387 United States

Division

Telephone (937) 767-7241

e-mail MSDSinfo@ysi.com

Contact person Not available.

1.4. Emergency telephone number	CHEMTREC (US/Canada)	(800) 424-9300
	CHEMTREC (International) (Collect calls accepted)	011 703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

This preparation does not meet the criteria for classification according to Directive 1999/45/EC as amended.

Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

Hazard summary

Physical hazards	Not classified for physical hazards.
Health hazards	Not classified for health hazards. However, occupational exposure to the mixture or substance(s) may cause adverse health effects.
Environmental hazards	Not classified for hazards to the environment.
Specific hazards	No hazards resulting from the material as supplied.
Main symptoms	May cause temporary irritation on skin or eye contact.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms	None.
Signal word	None.
Hazard statements	The mixture does not meet the criteria for classification.

Precautionary statements

Prevention	Observe good industrial hygiene practices.
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Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Supplemental label information	Not applicable.
2.3. Other hazards	Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Glycine, N,N'-1,2-ethanediybis(N-carboxymethyl) dipotassium salt, dihydrate	< 1	25102-12-9 217-895-0	-	-	
Classification:					
DSD:	-				
CLP:	-				
Glucose	< 1	50-99-7 200-075-1	-	-	
Classification:					
DSD:	-				
CLP:	-				
Lithium (S) Lactate	< 1	27848-80-2 248-692-5	-	-	
Classification:					
DSD:	-				
CLP:	-				
Sodium Benzoate	< 1	532-32-1 208-534-8	-	-	
Classification:					
DSD:	Xi;R36				
CLP:	Eye Irrit. 2;H319				
Water	> 96	7732-18-5 231-791-2	-	-	
Classification:					
DSD:	-				
CLP:	-				

List of abbreviations and symbols that may be used above

CLP: Regulation No. 1272/2008.
DSD: Directive 67/548/EEC.
vPvB: very persistent and very bioaccumulative substance.
PBT: persistent, bioaccumulative and toxic substance.

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of 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.

4.2. Most important symptoms and effects, both acute and delayed May cause temporary irritation on skin or eye contact.

4.3. Indication of any immediate medical attention and special treatment needed Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards	No unusual fire or explosion hazards noted.
5.1. Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
5.2. Special hazards arising from the substance or mixture	During fire, gases hazardous to health may be formed.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Special fire fighting procedures	Move containers from fire area if you can do so without risk.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel	Keep people away from and upwind of spill/leak. Keep out of low areas.
For emergency responders	Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
6.2. Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
6.3. Methods and material 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. 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.
6.4. Reference to other sections	For personal protection, see section 8. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation.
7.2. Conditions for safe storage, including any incompatibilities	Store in accordance with local/regional/national/international regulation. Store away from incompatible materials (See Section 10).
7.3. Specific end use(s)	Analysis Standard/Reagent

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Sweden. Occupational Exposure Limit Values

Components	Type	Value	Form
Lithium (S) Lactate (CAS 27848-80-2)	Ceiling	0,02 mg/m ³	Inhalable dust.

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no-effect level (DNEL) Not available.

Predicted no effect concentrations (PNECs) Not available.

8.2. Exposure controls

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, such as personal protective equipment

General information	Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the 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.
Hygiene measures	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.
Environmental exposure controls	For good industrial practise contain spills and prevent releases and observe national regulations on emissions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Colour	Clear and colorless.

Odour None.

Odour threshold Not available.

pH 6,5 - 7,5

Melting point/freezing point Not available.

Initial boiling point and boiling range 100 °C (212 °F)

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.

Vapour pressure Equal to water.

Vapour density Equal to water vapor.

Relative density 1 (Water=1)

Solubility(ies) Infinitely soluble in water.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Explosive properties Not explosive.

Oxidizing properties Not available.

9.2. Other information No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability Material is stable under normal conditions.

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

10.4. Conditions to avoid None known.

10.5. Incompatible materials None known.

10.6. Hazardous decomposition products No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation Do not inhale this material.
Skin contact Direct contact may irritate.
Eye contact Direct contact with eyes may cause temporary irritation.
Ingestion Do not ingest.

Symptoms May cause temporary irritation on skin or eye contact.

11.1. Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.
Skin corrosion/irritation Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation Based on available data, the classification criteria are not met.
Respiratory sensitisation Due to lack of data the classification is not possible.
Skin sensitisation 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 Based on available data, the classification criteria are not met.
Reproductive toxicity Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure Due to lack of data the classification is not possible.
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.
Mixture versus substance information Not available.
Other information This product has no known adverse effect on human health.

SECTION 12: Ecological information

12.1. Toxicity Not expected to be harmful to aquatic organisms.
12.2. Persistence and degradability No data is available on the degradability of this product.
12.3. Bioaccumulative potential No data available for this product.
Partition coefficient n-octanol/water (log Kow)
Glucose (CAS 50-99-7) -3,24
Bioconcentration factor (BCF) Not available.
12.4. Mobility in soil This product is water soluble and may disperse in soil.
12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.
12.6. 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.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste 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.
EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

SECTION 14: Transport information

ADR

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

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

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations**

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work

Not listed.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not listed.

Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances

Not listed.

Directive 94/33/EC on the protection of young people at work

Not listed.

Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations

Follow national regulation for work with chemical agents.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations	Not available.
References	Not available.
Information on evaluation method leading to the classification of mixture	The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.
Full text of any statements or R-phrases and H-statements under Sections 2 to 15	R36 Irritating to eyes. H319 Causes serious eye irritation.
Training information	Follow training instructions when handling this material.
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.