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

1.1. Product identifier

| Trade name or designation of the mixture | YSI 1531-2355-2356-2367-2368-2714-2715-2716-2801 Glucose Standards - all concentration |
| Registration number | - |
| Synonyms | 1531 Glucose Standard 50 mmol/L * 2355 Glucose Standard 200 mg/dL * 2356 Glucose Standard 500 mg/dL * 2367 Glucose Standard 10 mmol/L * 2368 Glucose Standard 25 mmol/L * 2714 Glucose Standard 100 mg/dL * 2715 Glucose Standard 400 mg/dL * 2716 Glucose Standard 700 mg/dL * 2801 Glucose Standard 50 mg/dL |
| Product code | YSI 1531-2355-2356-2367-2368-2714-2715-2716-2801 |
| 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 | YSI, a Xylem brand |
| 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. |
| CHEMTREC (US/Canada) | (800) 424-9300 |
| CHEMTREC (International) | 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 | Direct contact with eyes may cause temporary irritation. |

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.
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.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>%</th>
<th>CAS-No. / EC No.</th>
<th>REACH Registration No.</th>
<th>INDEX No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>&lt;1</td>
<td>50-99-7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>200-075-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classification:</td>
<td>DSD:</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CLP:</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDTA</td>
<td>&lt;1</td>
<td>25102-12-9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classification:</td>
<td>DSD:</td>
<td>Xn;R20</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CLP:</td>
<td>Acute Tox. 4;H332</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Benzoate</td>
<td>&lt;1</td>
<td>532-32-1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>208-534-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classification:</td>
<td>DSD:</td>
<td>Xi;R36</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CLP:</td>
<td>Eye Irrit. 2;H319</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>&gt;97</td>
<td>7732-18-5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>231-791-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classification:</td>
<td>DSD:</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CLP:</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Direct contact with eyes may cause temporary irritation.

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 (CO2).
- 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
Wear appropriate protective equipment and clothing during clean-up.
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
Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities
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
No exposure limits noted for ingredient(s).
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
In case of insufficient ventilation wear suitable respiratory equipment.
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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Form</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Colour</td>
<td>Clear. Colourless.</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>6.5 - 7.5</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>100 °C (212 °F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td></td>
</tr>
<tr>
<td>Flammability limit - lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>equivalent to water</td>
</tr>
<tr>
<td>Vapour density</td>
<td>=water vapor</td>
</tr>
<tr>
<td>Relative density</td>
<td>1 (Water=1)</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Infinitely soluble in water</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>9.2. Other information</strong></td>
<td>No relevant additional information available.</td>
</tr>
</tbody>
</table>

### 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

Contact with incompatible materials.

#### 10.5. Incompatible materials

Strong oxidising agents.

#### 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

<table>
<thead>
<tr>
<th>Route</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No adverse effects due to inhalation are expected. High mist concentrations may cause irritation of respiratory tract.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No adverse effects due to skin contact are expected. Contact with skin may cause slight skin irritation.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Direct contact with eyes may cause temporary irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Expected to be a low ingestion hazard. Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhoea.</td>
</tr>
</tbody>
</table>

#### Symptoms

Direct contact with eyes may cause temporary irritation.

#### 11.1. Information on toxicological effects

**Acute toxicity**

Not expected to be acutely toxic.
Skin corrosion/irritation: Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation: Direct contact with eyes may cause temporary irritation.

Respiratory sensitisation: Not a respiratory sensitiser.

Skin sensitisation: This product is not expected to cause skin sensitisation.

Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity: Not classifiable as to carcinogenicity to humans.

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

Specific target organ toxicity - single exposure: Not classified.

Specific target organ toxicity - repeated exposure: Not classified.

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: 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.

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): Not available.

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.
  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.

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

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

R20 Harmful by inhalation.
R36 Irritating to eyes.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.

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
R20 Harmful by inhalation.
R36 Irritating to eyes.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.

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.