



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 2357 Buffer Concentrate Kit
Registration number -
Synonyms None.
Product code 2357
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) 011 703-527-3887
(Collect calls accepted)

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

Classification Xi;R36

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

Health hazards

Serious eye damage/eye irritation Category 2 H319 - Causes serious eye irritation.

Hazard summary

Physical hazards Not classified for physical hazards.
Health hazards Irritating to eyes.
Environmental hazards Not classified for hazards to the environment.
Specific hazards No hazards resulting from the material as supplied.
Main symptoms Causes serious eye irritation. Symptoms include itching, burning, redness, and tearing of eyes.

2.2. Label elements

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

Hazard pictograms



| | |
|---------------------------------------|---|
| Signal word | Warning |
| Hazard statements | |
| H319 | Causes serious eye irritation. |
| Precautionary statements | |
| Prevention | |
| P264 | Wash thoroughly after handling. |
| Response | |
| P337 + P313 | If eye irritation persists: Get medical advice/attention. |
| Storage | |
| P405 | Store locked up. |
| Disposal | |
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| 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 |
|--|---------|---|------------------------|-----------|-------|
| Sodium phosphate dibasic | 50 - 55 | 7558-79-4 231-448-7 | - | - | |
| Classification: | | DSD: Xi;R36 CLP: Eye Irrit. 2;H319 | | | |
| Sodium chloride | 16 - 22 | 7647-14-5 231-598-3 | Exempted by Annex V(8) | - | |
| Classification: | | DSD: Xi;R36 CLP: Eye Irrit. 2;H319 | | | |
| Sodium acid phosphate | 10 - 15 | 7558-80-7 231-449-2 | - | - | |
| Classification: | | DSD: Xi;R36 CLP: Eye Irrit. 2;H319 | | | |
| Glycine, N,N'-1,2-ethanediybis(N-carboxymeth yl) dipotassium salt, dihydrate | < 10 | 25102-12-9 217-895-0 | - | - | |
| Classification: | | DSD: - CLP: - | | | |
| Sodium Benzoate | < 10 | 532-32-1 208-534-8 | - | - | |
| Classification: | | DSD: Xi;R36 CLP: Eye Irrit. 2;H319 | | | |
| Gentamicin, sulfate (salt) | < 1 | 1405-41-0 215-778-9 | - | - | |
| Classification: | | DSD: - CLP: Repr. 2;H361, STOT SE 1;H370 | | | |

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.

Composition comments The full text for all R- and H-phrases is displayed in section 16.

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 Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed Causes serious eye irritation. Symptoms include itching, burning, redness, and tearing of eyes.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Alcohol resistant foam. Water fog. 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 Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate personal protective equipment. Avoid inhalation of vapours or mists. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

For emergency responders Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

6.2. Environmental precautions Avoid discharge into drains, water courses or onto the ground.

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 Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapour. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment.

7.2. Conditions for safe storage, including any incompatibilities Store locked up. Store in a cool, dry, well-ventilated place. Keep container tightly closed. 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

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

| Components | Type | Value |
|---------------------------------|------|---------------------|
| Sodium chloride (CAS 7647-14-5) | TWA | 5 mg/m ³ |

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements (Hygiene Norm HN 23:2007)

| Components | Type | Value |
|---------------------------------|------|---------------------|
| Sodium chloride (CAS 7647-14-5) | TWA | 5 mg/m ³ |

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. Provide eyewash station.

Individual protection measures, such as personal protective equipment

General information Eye wash fountain is recommended. 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 Wear safety glasses with side shields (or goggles).

Skin protection

- Hand protection For prolonged or repeated skin contact use suitable protective gloves.

- Other Wear suitable protective clothing.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

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 Contain spills and prevent releases and observe national regulations on emissions. Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Solid.

Form Powder.

Colour White

Odour Mild odor.

Odour threshold No data available.

pH 6,5 - 7,5

Melting point/freezing point > 260 °C (> 500 °F)

Initial boiling point and boiling range No data available.

Flash point Not applicable.

Evaporation rate No data available.

Flammability (solid, gas) No data available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) No data available.

Flammability limit - upper (%) No data available.

| | |
|--|--------------------|
| Explosive limit - lower (%) | No data available. |
| Explosive limit – upper (%) | No data available. |
| Vapour pressure | Not applicable. |
| Vapour density | Not applicable. |
| Relative density | > 1 (Water=1) |
| Solubility(ies) | Soluble in water. |
| Partition coefficient (n-octanol/water) | Not determined. |
| Auto-ignition temperature | No data available. |
| Decomposition temperature | No data available. |
| Viscosity | Not applicable. |
| Explosive properties | No data available. |
| Oxidizing properties | No data available. |
| 9.2. Other information | |
| Density | No data available. |
| VOC (Weight %) | Not applicable. |

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 | Polymerization will not occur. |
| 10.4. Conditions to avoid | None known. |
| 10.5. Incompatible materials | Strong acids. Strong oxidising agents. |
| 10.6. Hazardous decomposition products | Phosphorus oxides. |

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 | Avoid contact with skin. |
| Eye contact | Causes serious eye irritation. |
| Ingestion | Do not ingest. |
| Symptoms | Causes serious eye irritation. Symptoms include itching, burning, redness, and tearing of eyes. |
| 11.1. Information on toxicological effects | |
| Acute toxicity | Not expected to be acutely toxic. |

| Components | Species | Test results |
|--|--|--------------------|
| Sodium chloride (CAS 7647-14-5) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | > 10000 mg/kg |
| <i>Inhalation</i> | | |
| LC50 | Rat | > 42 mg/l, 1 Hours |
| <i>Oral</i> | | |
| LD50 | Rat | 3550 mg/kg |
| Skin corrosion/irritation | Not classified. | |
| Serious eye damage/eye irritation | Causes serious eye irritation. | |
| Respiratory sensitisation | No data available. | |
| Skin sensitisation | Not a skin sensitiser. | |
| 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 | No data available. |
| Mixture versus substance information | Not available. |
| Other information | No other specific acute or chronic health impact noted. |

SECTION 12: Ecological information

12.1. Toxicity Not expected to be harmful to aquatic organisms.

| Components | Species | Test results |
|---------------------------------|---------|--------------------------------|
| Sodium chloride (CAS 7647-14-5) | | |
| Aquatic | | |
| Crustacea | EC50 | Water flea (Daphnia magna) |
| Fish | LC50 | Bluegill (Lepomis macrochirus) |
| | | 340,7 - 469,2 mg/l, 48 hours |
| | | 1294,6 mg/l, 96 hours |

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. Since emptied containers may retain product residue, follow label warnings even after container is emptied. |
| 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. Dispose of in accordance with local regulations. |

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.
R39 Danger of very serious irreversible effects.
R62 Possible risk of impaired fertility.
R63 Possible risk of harm to the unborn child.
H319 Causes serious eye irritation.
H361 Suspected of damaging fertility or the unborn child.
H370 Causes damage to organs.

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.