



a xylem brand

SAFETY DATA SHEET

1. Product and company identification

Material name YSI 1515 Cell Lysing Agent
Version No. 01
Issue date 05-December-2013
Revision date -
Supersedes date -
CAS No. Mixture
Manufacturer information YSI, Inc
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 Yellow Springs, Ohio 45387
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 (Collect calls accepted)

2. Hazards Identification

Emergency overview WARNING
 Causes eye irritation.

Potential health effects

Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.

Eyes Causes eye irritation. Do not get this material in contact with eyes.

Skin Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Avoid contact with the skin.

Inhalation Do not breathe dust/fume/gas/mist/vapors/spray.

Ingestion Ingestion may cause irritation and stomach discomfort. Do not ingest.

Chronic effects None known.

Signs and Symptoms Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Potential environmental effects May cause long-term adverse effects in the environment.

3. Composition/Information on Ingredients

| Components | CAS No. | Percent |
|---------------------------------------|-----------|---------|
| POLYETHYLENE GLYCOL OCTYLPHENOL ETHER | 9002-93-1 | 38 - 44 |
| 1,2-PROPYLENE GLYCOL | 57-55-6 | 58 - 64 |

4. First aid measures

First aid procedures

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.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Inhalation Move to fresh air. Oxygen or artificial respiration if needed. Call a physician if symptoms develop or persist.

Ingestion Rinse mouth. Do not induce vomiting without advice from poison control centre. Get medical attention if symptoms occur.

Notes to physician Provide general supportive measures and treat symptomatically.

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

5. Fire Fighting Measures

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.

Protection of firefighters

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.

Protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting

equipment/instructions

Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk.

Explosion data

Sensitivity to static discharge Not established.

Sensitivity to mechanical impact Not established.

6. Accidental release measures

Personal precautions

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Be aware of potential for surfaces to become slippery. For personal protection, see section 8.

Environmental precautions

Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground.

Methods for containment

Use water spray to reduce vapours or divert vapour cloud drift. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

Methods for cleaning up

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.

7. Handling and storage

Handling

Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear personal protective equipment. Wash thoroughly after handling.

Storage

Keep container tightly closed. Store in a cool, dry place out of direct sunlight. Keep away from incompatible material.

8. Exposure controls / personal protection

Occupational exposure limits

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

| Components | Type | Value | Form |
|--------------------------------|------|-----------------------|--|
| Propylene glycol (CAS 57-55-6) | TWA | 155 mg/m ³ | Vapor and aerosol, inhalable fraction. |
| | | 10 mg/m ³ | Aerosol |
| | | 50 ppm | Vapor and aerosol, inhalable fraction. |

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.

Personal protective equipment

| | |
|-------------------------------|--|
| Eye / face protection | Wear safety glasses with side shields (or goggles). |
| Skin protection | Wear suitable protective clothing. For prolonged or repeated skin contact use suitable protective gloves. |
| Respiratory protection | When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. |

9. Physical & Chemical Properties

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|---|-------------------------|
| Appearance | Not available. |
| Physical state | Liquid. |
| Form | Liquid. |
| Colour | Clear green. |
| Odour | Odourless. |
| Odour threshold | Not available. |
| pH | 6.5 - 7.5 |
| Vapour pressure | < 1 mm Hg @ 20°C |
| Vapour density | > 1 |
| Boiling point | 104.44 °C (220 °F) |
| Melting point/freezing point | Not available. |
| Solubility (water) | Infinitely soluble |
| Specific gravity | Not available. |
| Flash point | > 100.0 °C (> 212.0 °F) |
| Flammability limits in air, upper, % by volume | Not available. |
| Flammability limits in air, lower, % by volume | Not available. |
| Auto-ignition temperature | Not available. |

10. Chemical Stability & Reactivity Information

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|---|--|
| Chemical stability | Material is stable under normal conditions. |
| Conditions to avoid | Contact with active metals (copper, aluminum, zinc) can generate explosive hydrocarbons. |
| Incompatible materials | Strong oxidising agents. |
| Hazardous decomposition products | Carbon dioxide. Carbon monoxide. Hydrocarbons. |
| Possibility of hazardous reactions | Polymerization will not occur. |

11. Toxicological information

Toxicological data

| Components | Species | Test results |
|------------------------------------|---|--------------|
| 1,2-PROPYLENE GLYCOL (CAS 57-55-6) | | |
| Acute | | |
| ORAL | | |
| LD50 | Rat | 30 g/kg |
| Local effects | Irritating to eyes. | |
| Chronic effects | Not expected to be hazardous by WHMIS criteria. | |
| Carcinogenicity | No information available on the mixture. However, none of the components are classified in respect of this hazard (or are present at a level below the concentration threshold for classification). | |
| Mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. | |
| Reproductive effects | Due to lack of data the classification is not possible. | |

Symptoms and target organs Causes serious eye irritation. Symptoms include itching, burning, redness, and tearing of eyes.

12. Ecological information

Ecotoxicological data

| Components | | Species | Test results |
|---|---|--------------------------------------|--------------------------|
| 1,2-PROPYLENE GLYCOL (CAS 57-55-6) | | | |
| Aquatic | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | > 10000 mg/l, 48 hours |
| Fish | LC50 | Fathead minnow (Pimephales promelas) | 710 mg/l, 96 hours |
| POLYETHYLENE GLYCOL OCTYLPHENOL ETHER (CAS 9002-93-1) | | | |
| Aquatic | | | |
| Fish | LC50 | Bluegill (Lepomis macrochirus) | 2.8 - 3.2 mg/l, 96 hours |
| Ecotoxicity | Contains a substance which causes risk of hazardous effects to the environment. | | |
| Environmental effects | An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. | | |
| Persistence and degradability | Not available. | | |
| Partition coefficient | | | |
| 1,2-PROPYLENE GLYCOL (CAS 57-55-6) | | -0.92 | |

13. Disposal considerations

| | |
|--|--|
| Disposal instructions | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Waste from residues / unused products | 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. |

14. Transport information

TDG

Not regulated as dangerous goods.

IATA

| | |
|-------------------------------------|---|
| UN number | UN3082 |
| UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s. (POLYETHYLENE GLYCOL OCTYLPHENOL ETHER) |
| Transport hazard class(es) | 9 |
| Packing group | III |
| Environmental hazards | Yes |
| ERG code | 9L |
| Special precautions for user | Read safety instructions, MSDS and emergency procedures before handling. |

IMDG

| | |
|-------------------------------------|---|
| UN number | UN3082 |
| UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (POLYETHYLENE GLYCOL OCTYLPHENOL ETHER) |
| Transport hazard class(es) | 9 |
| Packing group | III |
| Environmental hazards | |
| Marine pollutant | Yes |
| EmS | F-A, S-F |
| Special precautions for user | Read safety instructions, MSDS and emergency procedures before handling. |

15. Regulatory information

| | |
|-----------------------------|---|
| Canadian regulations | 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. |
| WHMIS status | Controlled |
| WHMIS Classification | D2B - Other Toxic Effects-TOXIC |

WHMIS labeling



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) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| 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) | Yes |
| 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 | Yes |

*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

HMIS® ratings

Health: 1
Flammability: 1
Physical Hazard: 0

NFPA ratings

Health: 1
Flammability: 1
Instability: 0

Disclaimer

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