



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product identifier** YSI 2787 Ethanol Buffer Kit  
**Version #** 01  
**Issue date** 11-July-2014  
**Revision date** -  
**Supersedes date** -  
**Product code** 2787  
**Product use** Analysis Standard/Reagent  
**Manufacturer information** YSI, Inc  
1700/1725 Brannum Lane  
Yellow Springs, Ohio 45387  
MSDSinfo@ysi.com  
(937) 767-7241  
CHEMTREC (US/Canada) (800) 424-9300  
CHEMTREC (International) 011 703-527-3887  
(Collect calls accepted)  
**Supplier** Not available.

## 2. Hazards Identification

**Emergency overview** WARNING  
Causes serious eye irritation. Exposure to powder or dusts may be irritating to eyes, nose and throat. Possible reproductive hazard.

**Potential health effects**  
**Routes of exposure** Inhalation. Ingestion. Skin contact. Eye contact.  
**Eyes** Causes eye irritation. Avoid contact with eyes.  
**Skin** Dust or powder may irritate the skin. Avoid contact with the skin.  
**Inhalation** Dust may irritate respiratory system. Do not breathe dust.  
**Ingestion** Do not ingest.

**Chronic effects** May cause adverse reproductive effects - such as birth defects, miscarriages, or infertility based on animal data.

**Signs and symptoms** May cause eye irritation. Dust may irritate skin and the respiratory system.

**Potential environmental effects** Ecological injuries are not known or expected under normal use.

## 3. Composition / Information on Ingredients

| Components                | CAS #      | Percent   |
|---------------------------|------------|-----------|
| Sodium phosphate dibasic  | 7558-79-4  | 60 - 65   |
| Sodium chloride           | 7647-14-5  | 16 - 22   |
| Potassium EDTA            | 25102-12-9 | < 10      |
| Sodium Benzoate           | 532-32-1   | < 10      |
| Sodium acid phosphate     | 7558-80-7  | 3 - 4     |
| Gentamicin sulfate (salt) | 1405-41-0  | 0.5 - 1.5 |

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

|                       |  |
|-----------------------|--|
| <b>Inhalation</b>     | If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.  |
| <b>Ingestion</b>      | Rinse mouth. Get medical attention if symptoms occur.  |
| <b>General advice</b> | If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. |

## 5. Fire Fighting Measures

|   |   |
|---|---|
| <b>Flammable properties</b>                       | Not flammable by WHMIS criteria.  |
| <b>Extinguishing media</b>                        |   |
| <b>Suitable extinguishing media</b>               | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).                                   |
| <b>Unsuitable extinguishing media</b>             | Do not use water jet as an extinguisher, as this will spread the fire.                        |
| <b>Protection of firefighters</b>                 |   |
| <b>Specific hazards arising from the chemical</b> | During fire, gases hazardous to health may be formed.   |
| <b>Protective equipment for firefighters</b>      | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| <b>Fire fighting equipment/instructions</b>       | Use water spray to cool unopened containers.  |
| <b>Specific methods</b>                           | Use standard firefighting procedures and consider the hazards of other involved materials.    |
| <b>Explosion data</b>                             |   |
| <b>Sensitivity to static discharge</b>            | Not available.  |
| <b>Sensitivity to mechanical impact</b>           | Not available.  |
| <b>Hazardous combustion products</b>              | Phosphorus oxides.  |

## 6. Accidental Release Measures

|                                  |  |
|----------------------------------|--|
| <b>Personal precautions</b>      | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. For personal protection, see section 8 of the MSDS. |
| <b>Environmental precautions</b> | Prevent further leakage or spillage if safe to do so. Do not contaminate water.  |
| <b>Methods for containment</b>   | Stop leak if you can do so without risk. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Prevent entry into waterways, sewer, basements or confined areas.   |
| <b>Methods for cleaning up</b>   | Minimize dust generation and accumulation. Should not be released into the environment. This product is miscible in water. Collect dust using a vacuum cleaner equipped with HEPA filter. Avoid the generation of dusts during clean-up. Following product recovery, flush area with water. Clean up in accordance with all applicable regulations. For waste disposal, see section 13 of the MSDS.  |
| <b>Other information</b>         | Clean up in accordance with all applicable regulations.  |

## 7. Handling and Storage

|                 |  |
|-----------------|--|
| <b>Handling</b> | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Provide appropriate exhaust ventilation at places where dust is formed. Minimize dust generation and accumulation. Avoid breathing dust. Avoid contact with eyes. Should be handled in closed systems, if possible. Pregnant or breastfeeding women must not handle this product. Observe good industrial hygiene practices. |
| <b>Storage</b>  | Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the MSDS).  |

## 8. Exposure Controls / Personal Protection

|                                     |   |
|-------------------------------------|---|
| <b>Occupational exposure limits</b> | No exposure limits noted for ingredient(s).   |
| <b>Engineering controls</b>         | 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. |

## Personal protective equipment

|                               |   |
|-------------------------------|---|
| <b>Eye / face protection</b>  | Safety glasses with side-shields.   |
| <b>Skin protection</b>        | Wear suitable protective clothing. Use of an impervious apron is recommended.   |
| <b>Respiratory protection</b> | If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. |

## 9. Physical & Chemical Properties

### Appearance

|   |                     |
|---|---------------------|
| <b>Physical state</b>                                 | Solid.              |
| <b>Form</b>   | Powder.             |
| <b>Color</b>  | White.              |
| <b>Odor</b>   | Mild odor.          |
| <b>Odor threshold</b>                                 | Not available.      |
| <b>pH</b>   | 6.5 - 7.5           |
| <b>Vapor pressure</b>                                 | Not applicable.     |
| <b>Vapor density</b>                                  | Not applicable.     |
| <b>Boiling point</b>                                  | Not available.      |
| <b>Melting point/Freezing point</b>                   | > 500 °F (> 260 °C) |
| <b>Solubility (water)</b>                             | Soluble.            |
| <b>Specific gravity</b>                               | > 1                 |
| <b>Flash point</b>                                    | Not applicable.     |
| <b>Flammability limits in air, upper, % by volume</b> | Not available.      |
| <b>Flammability limits in air, lower, % by volume</b> | Not available.      |
| <b>Auto-ignition temperature</b>                      | Not available.      |
| <b>Evaporation rate</b>                               | Not available.      |
| <b>Partition coefficient (n-octanol/water)</b>        | Not available.      |

## 10. Chemical Stability & Reactivity Information

|   |   |
|---|---|
| <b>Chemical stability</b>                 | Material is stable under normal conditions.   |
| <b>Conditions to avoid</b>                | Contact with incompatible materials. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). |
| <b>Incompatible materials</b>             | Strong oxidizing agents.  |
| <b>Hazardous decomposition products</b>   | Phosphorus oxides.  |
| <b>Possibility of hazardous reactions</b> | Not available.  |

## 11. Toxicological Information

### Toxicological data

| Components                            | Species | Test Results |
|---------------------------------------|---------|--------------|
| Sodium acid phosphate (CAS 7558-80-7) |         |              |
| <b>Acute</b>                          |         |              |
| <i>Dermal</i>                         |         |              |
| LD50                                  | Rabbit  | > 7940 mg/kg |
| <i>Oral</i>                           |         |              |
| LD50                                  | Mouse   | > 2000 mg/kg |
|                                       | Rat     | 8290 mg/kg   |

| Components                               | Species   | Test Results |
|--|---|--------------|
| Sodium chloride (CAS 7647-14-5)          |   |              |
| <b>Acute</b>                             |   |              |
| <i>Oral</i>                              |   |              |
| LD50                                     | Rat   | 3000 mg/kg   |
| Sodium phosphate dibasic (CAS 7558-79-4) |   |              |
| <b>Acute</b>                             |   |              |
| <i>Oral</i>                              |   |              |
| LD50                                     | Rat   | 17 g/kg      |
| <b>Acute effects</b>                     |   |              |
| <b>Sensitization</b>                     | Not classified.   |              |
| <b>Local effects</b>                     | Irritating to eyes.   |              |
| <b>Chronic effects</b>                   | May cause adverse reproductive effects - such as birth defects, miscarriages, or infertility.   |              |
| <b>Carcinogenicity</b>                   | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.   |              |
| <b>Skin corrosion/irritation</b>         | Not classified.   |              |
| <b>Serious eye damage/irritation</b>     | Causes serious eye irritation.  |              |
| <b>Mutagenicity</b>                      | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.  |              |
| <b>Reproductive effects</b>              | Suspected of damaging fertility or the unborn child.  |              |
| <b>Teratogenicity</b>                    | Not available.  |              |
| <b>Symptoms and target organs</b>        | Symptoms include itching, burning, redness, and tearing of eyes. May cause adverse reproductive effects - such as birth defects, miscarriages, or infertility based on animal data. |              |
| <b>Synergistic materials</b>             | Not available.  |              |

## 12. Ecological Information

### Ecotoxicological data

| Components                            | Species   | Test Results  |
|---------------------------------------|---|---|
| Sodium acid phosphate (CAS 7558-80-7) |   |   |
| <b>Aquatic</b>                        |   |   |
| Fish                                  | LC50  | Western mosquitofish ( <i>Gambusia affinis</i> ) 186 mg/l, 96 hours |
| Sodium Benzoate (CAS 532-32-1)        |   |   |
| <b>Aquatic</b>                        |   |   |
| Fish                                  | LC50  | Fathead minnow ( <i>Pimephales promelas</i> ) > 100 mg/l, 96 hours  |
| Sodium chloride (CAS 7647-14-5)       |   |   |
| <b>Aquatic</b>                        |   |   |
| Crustacea                             | EC50  | Water flea ( <i>Daphnia magna</i> ) 340.7 - 469.2 mg/l, 48 hours    |
| <b>Ecotoxicity</b>                    | Not expected to be harmful to aquatic organisms.  |   |
| <b>Environmental effects</b>          | An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. |   |
| <b>Aquatic toxicity</b>               | The product is not expected to be hazardous to the environment.                                 |   |
| <b>Persistence and degradability</b>  | No data is available on the degradability of this product.                                      |   |

## 13. Disposal Considerations

|  |  |
|--|--|
| <b>Disposal instructions</b>                 | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.      |
| <b>Waste from residues / unused products</b> | 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). |
| <b>Contaminated packaging</b>                | 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

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

## 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



### 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)             | Yes                    |
| Europe                      | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes                    |
| Europe                      | European List of Notified Chemical Substances (ELINCS)                 | No                     |
| Japan                       | Inventory of Existing and New Chemical Substances (ENCS)               | Yes                    |
| 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                          | 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 country(s).

## 16. Other Information

### Disclaimer

YSI, Inc cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

### Prepared by

Not available.