

1. IDENTIFICATION**Product Name:** HALYARD* Multi-Enzyme Detergent**Product Number:** 65201

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|---|---|
| Date Prepared: | 3/25/15 |
| Manufacturer: | Halyard Health Inc. 5405 Windward Parkway Alpharetta, Georgia 30004 |
| Telephone: MEDICAL EMERGENCY: TRANSPORTATION EMERGENCY: INFORMATION: | Call 911 or your local Emergency Room or Poison Control Services Chemtrec 1-800-424-9300 or 1-703-527-3887 (collect calls accepted) 1-844-HALYARD |

Product Use: Used as a detergent.**2. HAZARDS IDENTIFICATION****GHS Classification:**

Respiratory Sensitization Category 1

GHS Labeling:**DANGER!**

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

P261 Avoid breathing dust, fume, gas, mist, vapors or spray.

P285 In case of inadequate ventilation wear respiratory protection.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

P501 Dispose of contents and container in accordance with local and national regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS-No./ EINECS-No | % | GHS Classification: |
|-------------------------------|--------------------------|-------|---|
| Glycerin (Glycerol) | 56-81-5 / 200-289-5 | 5-15% | Not Hazardous |
| Octanoic acid, potassium salt | 764-71-6 / 212-130-7 | 1-5% | Not hazardous |
| Subtilisins | 9014-01-1 / 204-854-7 | 0.1-1 | Acute Tox 4 H302 Skin Irrit 2 H315 Eye Dam 1 H318 Resp Sens 1 H334 STOT SE 3 H335 |
| Amalase, Alpha | 9000-90-2 / 232-565-6 | 0.1-1 | Acute Tox 4 H302 Resp Sens 1 H334 |

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If difficulty in breathing or other allergic symptoms develop, get immediate medical attention.

Skin contact: Wash off with soap and water. Seek medical advice if redness, swelling, itching or burning occurs.

Eye contact: Rinse immediately with plenty of water, also under the eyelids. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Obtain medical attention if irritation persists.

Ingestion: If victim is conscious, rinse mouth with a small amount of water. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Centre.

Most Important symptoms and effects, both acute and delayed: May cause eye irritation. May cause skin irritation. Subtilisins and amalase, alpha causes respiratory sensitization (asthma) by inhalation. This product is a dilute solution and under normal conditions of use would not be expected to present an inhalation hazard.

Indication of any immediate medical attention and special treatment needed: If allergic respiratory symptoms develop, get immediate medical attention.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) Extinguishing Media: Use media suitable for surrounding materials.

Specific Hazards Arising from the Chemical: None known.

Hazardous Combustion Products: Carbon monoxide and carbon dioxide.

Special Protective Equipment and Precautions for Fire-fighters: Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment, and Emergency Procedures:**

Wear protective clothing as described in Section 8.

Environmental Precautions: Report releases as required by local and federal regulations.

Methods and Materials for Containment and Cleaning Up: Contain and collect with inert absorbent material and place in a suitable container for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes, skin and clothing. Do not breathe vapors or mists. Use only with adequate ventilation.

Conditions for Safe Storage, including any Incompatibilities: Store in a cool, dry, well ventilated area. Keep container tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Exposure limit(s)**

| Chemical Name | Exposure limit(s) |
|-------------------------------|--|
| Glycerin (Glycerol) | 5 mg/m ³ (respirable), 15 mg/m ³ PEL-TWA (total particulate) |
| Octanoic acid, potassium salt | None established |
| Subtilisins | 0.00006 mg/m ³ Ceiling ACGIH TLV |
| Amalase, Alpha | None established |

Appropriate Engineering Controls: Use process enclosure, local exhaust ventilation or other engineering controls as needed to maintain exposures below occupational exposure limits.

Individual Protection Measures, such as Personal Protective Equipment:

Respiratory Protection: No personal respiratory protective equipment normally required. Avoid breathing vapors or mists.

Protective Gloves: Impervious gloves recommended as good industrial hygiene practice. Avoid prolonged contact with skin.

Eye Protection: Safety glasses or goggles if needed to prevent eye contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

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|---|--|
| Appearance and Odor | Blue liquid with a fresh odor. |
| Odor Threshold: | Not available |
| Boiling point/range | Not available |
| Melting point/range | Not available |
| Relative Density (water=1) | 1.11 |
| Vapor pressure | Not available |
| Vapor density (air=1) | Not available |
| Solubility | Not available |
| pH | 8.7 |
| Partition coefficient (n-octanol/water): | Not available |
| Evaporation Rate (Butyl acetate=1) | Not available |
| Viscosity: | Not available |
| Volatile Organic Carbon Compounds (VOC) (g/L) | Not available |
| Flashpoint: | Not applicable |
| Flammable Limits in Air % by Volume: | LEL (Lower): Not applicable UEL (Upper): Not applicable |
| Autoignition temperature: | Not available |
| Decomposition temperature: | Not available |
| Flammability (solid, gas): | Not applicable |

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical Stability: Stable.

Possibility of Hazardous Reactions: None currently known.

Conditions to Avoid: None known.

Incompatible Materials: None known.

Hazardous Decomposition Products: Oxides of carbon.

11. TOXICOLOGICAL INFORMATION**Symptoms/Effects of Overexposure:**

Inhalation: Inhalation of vapors or mists may cause mucous membrane and respiratory irritation. May cause respiratory sensitization (asthma) by inhalation. This product is a dilute solution of subtilisins and amalase, alpha. Under normal conditions of use this product would not be expected to present an inhalation hazard.

Skin contact: May cause skin irritation with redness and drying of the skin.

Eye contact: May cause eye irritation with redness, tearing and swelling.

Ingestion: Swallowing may cause gastrointestinal irritation with nausea and vomiting.

Chronic toxicity: None currently known.

Carcinogenicity Data: None of the components of this product is listed as a carcinogen by IARC, NTP, US OSHA or the EU CLP Annex VI.

Reproductive Toxicity: None of the components have been shown to cause reproduction or developmental toxicity.

Numerical Measures of Toxicity:

Glycerin: Oral rat LD50 27,200 mg/kg, Dermal guinea pig 56, 750 mg/kg

Octanionic acid, potassium salt: No toxicity data available

Subtilisins: Oral rat LD50 1800 mg/kg,

Amalase, Alpha: Oral rat LD50 >1911 mg/kg, Inhalation rat LC50 >4.96 mg/kg/4 hr,

12. ECOLOGICAL INFORMATION**Ecotoxicity:**

Glycerin: 96 hr LC50 *Oncorhynchus mykiss* 54000 mg/L, 48 hr EC50 *daphnia magna* 1955 mg/L

Octanionic acid, potassium salt: No data available

Subtilisins: 96 hr LC50 *Oncorhynchus mykiss* 8.2 mg/L, 48 hr EC50 *daphnia magna* 0.868 mg/L, 72 hr EC50 *Pseudokirchnerella subcapitata* 1.48 mg/L

Amalase, Alpha: 96 NOEC *Oncorhynchus mykiss* 100 mg/L, 48 hr EC50 2000 mg/L, 72 hr EC50 *Desmodesmus subspicatus* 49 mg/L

Persistence and Degradability: Glycerin, subtilisins and amalase, alpha are readily biodegradable.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available

Other Adverse Effects: None currently known.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all state, local and federal regulations.

14. TRANSPORT INFORMATION

US DOT Shipping Description: Not Regulated

IATA Shipping Description (Air): Not Regulated

IMDG Shipping Description (Vessel): Not Regulated

15. REGULATORY INFORMATION**US Regulations**

EPA Toxic Substances Control Act (TSCA): All of the components of this product are listed on the TSCA Inventory or exempted from TSCA.

SARA 302 Listed Chemicals: None.

SARA 311/312 Hazard Categories: Acute Health, Chronic Health, Fire Hazard

SARA 313 This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under the SARA Section 313 (40 CFR 372): None.

California Proposition 65: This product does not contain chemicals listed per the Safe Drinking Water and Toxic Enforcement Act of 1986.

16. OTHER INFORMATION

Date Prepared: 3/2/15

GHS Classification Hazard Statements seen in Section 3 for Reference:

Acute Tox 4 Acute Toxicity Category 4

Skin Irrit 2 = Skin Irritation Category 2

Eye Dam 1 = Eye Damage Category 1

Resp Sens 1 Respiratory Sensitization Category 1

STOT SE 3 = Specific Target Organ Toxicity Single Exposure Category 3

H302 Harmful if swallowed

H315 Causes skin irritation

H318 Causes serious eye damage

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335 May cause respiratory irritation

HMIS Rating: Health 2 Fire 0 Reactivity 0

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