# Safety Data Sheet

**Issue Date:** 10-Nov-2015 **Revision Date:** 22-Nov-2015 **Version** 1

## 1. IDENTIFICATION

**Product Identifier**

**Product Name** Stress Master

**Other means of identification**

**SDS #** VLS-157

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Fertilizer.

**Details of the supplier of the safety data sheet**

**Supplier Address**
Quest Products
11712 230th St.
Linwood, KS 66052

**Company Phone Number** Business Phone: (785) 542-2577
Fax Phone: (785) 542 2531

**Emergency Telephone (24 hr)** INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** Clear liquid **Physical State** Liquid

**Classification**

| | |
|---|---|
| Acute toxicity - Oral | Category 4 |

**Signal Word**
**Warning**

**Hazard Statements**
Harmful if swallowed

**Precautionary Statements - Prevention**
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

**Precautionary Statements - Response**

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

**Precautionary Statements - Disposal**
Dispose of contents/container to an approved waste disposal plant

**Other Hazards**
Harmful to aquatic life with long lasting effects

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% |
|---|---|---|
| Phosphorous acid | 13598-36-2 | 30-40 |
| Potassium hydroxide | 1310-58-3 | 20-30 |

**If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.**

## 4. FIRST-AID MEASURES

**First Aid Measures**

**Eye Contact** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation occurs.

**Skin Contact** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Get medical attention if irritation occurs.

**Inhalation** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

**Ingestion** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a poison center or doctor/physician if you feel unwell.

**Most important symptoms and effects**

**Symptoms** May cause irritation to the eyes, skin, gastrointestinal, and respiratory systems.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**
Product is not flammable or combustible.

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Wear protective clothing as described in Section 8 of this safety data sheet.

**Environmental Precautions** See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so. Soak up and contain spill with an inert (i.e. vermiculite, dry sand or earth) absorbent material.

**Methods for Clean-Up** Sweep up absorbed material and shovel into suitable containers for disposal. Flush spill area with water. For waste disposal, see section 13 of the SDS.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on Safe Handling** Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed and store in a cool, dry and well-ventilated place. Store away from combustible materials, herbicides and fungicides.

**Incompatible Materials** Strong bases. Strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines**

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---|---|---|---|
| Potassium hydroxide<br>1310-58-3 | Ceiling: 2 mg/m$^3$ | (vacated) Ceiling: 2 mg/m$^3$ | Ceiling: 2 mg/m$^3$ |

**Appropriate engineering controls**

**Engineering Controls** Apply technical measures to comply with the occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Goggles. Refer to 29 CFR 1910.133 for eye and face protection regulations.

**Skin and Body Protection** Rubber gloves. Long sleeve shirt and long pants. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

**Respiratory Protection** Refer to 29 CFR 1910.134 for respiratory protection requirements.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

| | | | |
|---|---|---|---|
| **Physical State** | Liquid | | |
| **Appearance** | Clear liquid | **Odor** | Not determined |
| **Color** | Clear | **Odor Threshold** | Not determined |

| Property | Values | Remarks • Method |
|---|---|---|
| **pH** | 7.0-7.5 | |
| **Melting Point/Freezing Point** | Not applicable | |
| **Boiling Point/Boiling Range** | > 100 °C / > 212 °F | |
| **Flash Point** | Not determined | |
| **Evaporation Rate** | Not determined | |
| **Flammability (Solid, Gas)** | Not applicable | |
| **Upper Flammability Limits** | Not applicable | |
| **Lower Flammability Limit** | Not applicable | |
| **Vapor Pressure** | Not applicable | |
| **Vapor Density** | Not determined | |
| **Specific Gravity** | 1.50-1.54 | |
| **Water Solubility** | Soluble | |
| **Solubility in other solvents** | Not determined | |
| **Partition Coefficient** | Not determined | |
| **Auto-ignition Temperature** | Not determined | |
| **Decomposition Temperature** | Not determined | |
| **Kinematic Viscosity** | Not determined | |
| **Dynamic Viscosity** | Not determined | |
| **Explosive Properties** | Not determined | |
| **Oxidizing Properties** | Not determined | |

## 10. STABILITY AND REACTIVITY

**Reactivity**
Not reactive under normal conditions.

**Chemical Stability**
Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**
None under normal processing.

**Conditions to Avoid**
Keep out of reach of children.

**Incompatible Materials**
Strong bases. Strong oxidizing agents.

**Hazardous Decomposition Products**
Phosphorus oxides. Ammonia.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product Information**

**Eye Contact** Avoid contact with eyes.

**Skin Contact** Avoid contact with skin.

**Inhalation** Do not inhale.

**Ingestion** Harmful if swallowed.

**Component Information**

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|---|---|---|
| Phosphorous acid<br>13598-36-2 | = 1500 mg/kg ( Rat ) | - | - |
| Potassium hydroxide<br>1310-58-3 | = 284 mg/kg ( Rat ) | - | - |

**Information on physical, chemical and toxicological effects**

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Carcinogenicity** Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Numerical measures of toxicity**
Not determined

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**
Harmful to aquatic life with long lasting effects.

**Component Information**

| Chemical Name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|---|---|---|---|---|
| Phosphorous acid<br>13598-36-2 | | 6980 - 9784: 96 h Brachydanio rerio mg/L LC50 static | | |
| Potassium hydroxide<br>1310-58-3 | | 80: 96 h Gambusia affinis mg/L LC50 static | | |

**Persistence/Degradability**
Not determined.

**Bioaccumulation**
Not determined.

**Mobility**

| Chemical Name | Partition Coefficient |
|---|---|
| Potassium hydroxide<br>1310-58-3 | 0.65<br>0.83 |

**Other Adverse Effects**
Not determined

## 13. DISPOSAL CONSIDERATIONS

**Waste Treatment Methods**

**Disposal of Wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste

| Chemical Name | California Hazardous Waste Status |
|---|---|
| Potassium hydroxide<br>1310-58-3 | Toxic<br>Corrosive |

## 14. TRANSPORT INFORMATION

**Note** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

## 15. REGULATORY INFORMATION

**International Inventories**

| Chemical Name | TSCA | DSL | NDSL | EINECS | ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|---|---|---|---|---|---|---|---|---|---|---|
| Phosphorous acid | Present | X | | Present | | Present | X | Present | X | X |
| Potassium hydroxide | Present | X | | Present | | Present | X | Present | X | X |

**Legend:**

***TSCA*** *- United States Toxic Substances Control Act Section 8(b) Inventory*

***DSL/NDSL*** *- Canadian Domestic Substances List/Non-Domestic Substances List*

***EINECS/ELINCS*** *- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

***ENCS*** *- Japan Existing and New Chemical Substances*

***IECSC*** *- China Inventory of Existing Chemical Substances*

***KECL*** *- Korean Existing and Evaluated Chemical Substances*

***PICCS*** *- Philippines Inventory of Chemicals and Chemical Substances*

***AICS*** *- Australian Inventory of Chemical Substances*

**US Federal Regulations**

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical Name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|---|---|---|---|
| Potassium hydroxide<br>1310-58-3 | 1000 lb | | RQ 1000 lb final RQ<br>RQ 454 kg final RQ |

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---|---|---|---|---|
| Potassium hydroxide | 1000 lb | | | X |

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|---|---|---|---|
| Phosphorous acid<br>13598-36-2 | X | | |
| Potassium hydroxide<br>1310-58-3 | X | X | X |

## 16. OTHER INFORMATION

| | | | | |
|---|---|---|---|---|
| **NFPA** | **Health Hazards** | **Flammability** | **Instability** | **Special Hazards** |
| | Not determined | Not determined | Not determined | Not determined |
| **HMIS** | **Health Hazards** | **Flammability** | **Physical Hazards** | **Personal Protection** |
| | Not determined | Not determined | Not determined | Not determined |

**Issue Date:** 10-Nov-2015
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**Revision Note:** New format

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

**End of Safety Data Sheet**