

MATERIAL SAFETY DATA SHEET

PRO-ZYME

Date Updated: 11/30/2009

SECTION 1 – MATERIAL AND MANUFACTURER IDENTIFICATION

Product Identifier: Pro-Zyme
Product Use: Carpet cleaning enzyme pre-spray.

MANUFACTURER

CTI (Chemical Technologies International Inc.)
PO BOX 968
Rancho Cordova, CA 95741
Phone: (916) 638-1315 Fax: (916) 638-1315
Emergency Assistance Calls: Chemtrec (800) 424-9300

SECTION 2 – COMPOSITION / INFORMATION ON REPORTABLE HAZARDOUS INGREDIENTS

| <u>COMPONENT</u> | <u>CAS #</u> |
|------------------------|--------------|
| 1. STPP | 7758-29-4 |
| 2. SODIUM METASILICATE | 6834-92-0 |
| 3. NONIONIC | 9002-93-1 |
| 4. D-Limonene | 94266-47-4 |

(SEE SECTION 8 FOR EXPOSURE GUIDELINES)

SECTION 3 – Hazards Identification

Emergency Overview

White powder with clean fragrance
Irritating to respiratory and digestive tract, eyes and skin, harmful if swallowed.

Potential Health Effects

Routes of entry: (skin: yes) (inhalation: yes) (ingestion: yes) (eye: yes)

Inhalation:

Excessive inhalation may cause irritation of the respiratory tract.

Eye Contact:

Dust may irritate eyes. Direct or prolonged contact with eyes will be painful and irritating may also cause possible permanent damage.

Skin Contact:

Repeated exposure may cause skin irritation, drying, chapping.

Ingestion:

If swallowed can cause GI irritation.

Chronic effects: Not established.

NFPA GUIDE

| | | |
|---------------------|----------|---|
| HEALTH HAZARD | (BLUE) | 2 |
| FLAMMABILITY HAZARD | (RED) | 0 |
| REACTIVITY HAZARD | (YELLOW) | 0 |
| OTHER HAZARD | (WHITE) | |

MATERIAL SAFETY DATA SHEET

SECTION 4 – FIRST AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If breathing stops administer artificial respiration. Get medical attention immediately.

Eye Contact: Immediately flush eyes with a directed stream of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes within several seconds is essential to achieve maximum effectiveness. Get medical attention immediately.

Skin Contact: Flush thoroughly with cool water while removing any contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation persists after washing.

Ingestion: Get medical attention immediately.

Do not induce vomiting. Never give anything by mouth to an unconscious person. If directed by medical professional, Give large quantities of water or milk. If vomiting occurs spontaneously, keep airway clear.

SECTION 5 – Firefighting Measures

Flashpoint: N/A

Flammable Limits: Not Available

Auto ignition Temperature: Not Available

General Hazard:

During a fire smoke may contain the original material in addition to toxic and or irritating compounds. Avoid heat sparks or open flame contains combustible liquid.

Fire Fighting Instructions:

Use dry chemical or CO2. Use water (only to cool) nearby containers and structures exposed to fire. Keep people away from fire, isolate fire area and deny unnecessary entry.

Fire fighting equipment:

Fire fighters should wear a self contained, positive pressure breathing apparatus and full protective clothing (NICSH/MSHA APPROVED).

Hazardous combustion products:

Not Established

SECTION 6 – Accidental Release Measures

Small Spills: Sweep up and dispose of in DOT approved waste container.

Large Spills: Same method as small spills, then dispose into DOT approved waste container. Comply with all applicable governmental regulations on spill reporting, handling and disposal of waste.

Contain all spills to prevent discharge into the environment. All spills or releases should be reported to the appropriate local, state and federal agencies.

SECTION 7 – PRECAUTIONS FOR SAFE HANDLING

Work and hygiene:

This product is professional strength product to be used by professionals only.

As with all chemicals, practice good industrial hygiene when handling this product. In other words, always work in a well-ventilated area and avoid inhalation of product dust, vapor or mist, do not ingest or have contact with your eyes or skin.

Storage and handling:

Employees should be trained to handle this product safely. Store the product in a cool dry area away from ignition sources.

MATERIAL SAFETY DATA SHEET

Loosen closures cautiously.

Storage temperature: store in cool dry place

Storage pressure: Atmospheric

Avoid excessive heat.

The manufacturer and seller warrants that this product conforms to its standard specifications when used according to directions. As the conditions of method of its use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for use of this product. Information contained herein is believed to be true but all statements and suggestions are made without any warranty, expressed or implied, regarding accuracy of the information. The hazards connected with the use of this material and the results to be obtained from the use thereof.

SECTION 8 – Exposure/ Personal Protection

EXPOSURE LIMITS

Exposure limits have not been established for this mixture. However limits for individual ingredients at 100% concentration by number listed in section 2 are listed below:

| <u>COMPONENT #</u> | <u>OSHA PEL TWA STEL</u> | <u>ACGIH TLV TWA STEL</u> | <u>NIOSH TWA STEL</u> |
|------------------------|------------------------------|-------------------------------|---------------------------|
| 1. STPP | N/A | N/A | N/A |
| 2. Sodium Metasilicate | N/A | N/A | N/A |
| 3. Nonionic | N/A | N/A | N/A |
| 4. D-Limonene | 165.5 Mg/M3 | | |

Personal Protection:

To minimize exposure to all chemicals, including this product, use good industrial hygiene and common sense:

Ventilation and engineering controls: Use only in well ventilated area. If necessary, use exhaust ventilation to insure adequate ventilation. Insure that water is readily available and that you are prepared to properly wash out your eyes should the need arise. (Refer to section 4).

Respiratory: Wear NIOSH/MSHA approved organic respirator when ventilation is not adequate or when the sufficiency of ventilation to maintain concentrations below exposure limits is in question.

Eye Protection: Wear safety goggles to protect against eye contact. See OSHA 29 CFR 1910.33

Skin: Wear chemical impervious gloves. Wear protective clothing appropriate for the task to prevent skin contact.

Other: One should always use chemicals with an awareness of the potential hazard of the effect on the human system.

SECTION 9 – Physical and Chemical properties

PH: at 1% aqueous solution = 10.0

Vapor pressure: not available

Vapor density: not available

Boiling point: not available

Freezing/Melting point: N/A

Solubility in water: soluble

Density: N/A

Flammability: not established

Particle size: N/A

Evaporation rate: not available

MATERIAL SAFETY DATA SHEET

SECTION 10 – Stability and Reactivity

Chemical Stability: Stable under ambient temperature and atmospheric pressure. Stable under recommended storage and handling conditions.

Conditions to avoid: Keep away from heat or excessive pressure.

Incompatibility with other materials: Although the mixture has no known incompatibilities, some components of this mixture are not compatible with strong acids, oxidizing or reducing materials.

Hazardous decomposition products: There are no known hazardous decomposition materials of this mixture.

Hazardous polymerization: Major components of this mixture show no hazardous polymerization.

Section 11- Toxicological Information

Toxicological information has not been established on this mixture. However information for 100% concentrate of individual ingredients by number from section 2 are given here.

| <u>Component #</u> | <u>Information</u> |
|------------------------|--|
| 1. STPP | Acute oral toxicityLD50 Mouse: 3100 mg/kg |
| 2. SODIUM METASILICATE | Acute oral toxicityLD50 Rat: 1,153 mg/kg |
| 3. NONIONIC | Acute oral toxicity LD50 Rat: 500 mg/kg Rabbit - 8,000 mg/kg |
| 4. D-Limonene | Acute oral toxicityLD50 Rat: 4400 mg/kg Rabbit: 5g/kg |

SECTION 12 – SPECIAL PRECAUTIONS

One should always use chemicals with an awareness of the potential hazard of the effect on the human system. We urge users to minimize employee exposure to all chemicals, including this product.

SECTION 13 – Disposal Practices

Dispose of all waste, empty bottles and contaminated equipment in accordance with all applicable federal, state and local health and environmental regulations.

Do not dump into storm drains or any body of water. All disposal methods must be in compliance with all federal, State/ Provincial and local laws and regulations. Regulations may vary in different locations.

Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. The vendor has no control over the management practices or the processes by which the party who handles or uses this material. The information presented here pertains only to the product as shipped in its intended condition and recommended usage.

Section 14 - Transport information

No Information Available

Section 15- Regulatory Information

No Information Available

MATERIAL SAFETY DATA SHEET

Section 16 - Other Information

All information appearing herein is based upon data obtained from the manufacturer and /or recognized technical sources of each individual component. While the information is believed to be accurate, CTI makes no representations as to its accuracy or sufficiency. Conditions of use are beyond CTI's control and therefore users are responsible to verify this data under their own operating conditions to determine whether this product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance on information contained herein. This information relates only to the product-designated herein, and does not relate to its use in combination with any other material or in any other process.

Legend:

References:

ACGIH
Science Lab 11/6/08, 11/6/08
Sigma-Aldrich 1/11/08
Science Lab 11/6/08