

# MATERIAL SAFETY DATA SHEET

PRODUCT NAME: CHEMFREE

## SECTION 1: COMPANY AND PRODUCT IDENTIFICATION

PRODUCT NAME: CHEMFREE

### Distributed By:

Zerorez Systems, Inc.,  
4123 South 420 West,  
Murray, UT 84123  
Emergency Phone Number: 1-801-443-1034  
Date Prepared: 12/13/2010

Hazard Rating (Zero=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme)  
Fire: 0 Health: 1 Reactivity: 0

## SECTION 2: INGREDIENTS

### HAZARDOUS INGREDIENTS:

	<u>TLV</u>	<u>OSHA PEL</u>
Sodium Carbonate Peroxyhydrate (CAS # 15630-89-4)	See section 8	See section 8
DeLimonene (CAS # 5989-27-5)	N/E	N/E

## SECTION 3: HEALTH HAZARD INFORMATION

### IMMEDIATE HEALTH EFFECTS

- Eyes:** Overexposure may cause irritation to eyes.  
**Skin:** Prolonged and repeated contact may cause irritation to skin.  
**Inhalation:** Inhalation may cause irritation of upper respiratory passages.  
**Ingestion:** Single dose oral toxicity is low. Swallowing large amounts may be harmful.

**PRIMARY ROUTES OF ENTRY:** Eyes, skin contact/absorption, inhalation or ingestion.

**SIGNS/SYMPTOMS OF OVEREXPOSURE:** Gastrointestinal irritation (nausea, vomiting, diarrhea), and/or irritation to the skin, eyes, nose, throat, and respiratory tract.

**TARGET ORGAN EFFECTS:** Irritation of the skin and eyes. Irritation of lungs possible if mists/aerosols are inhaled.

**REPRODUCTIVE/DEVELOPMENTAL INFORMATION:** No data available.

### CARCINOGENICITY:

**NTP:** Known – No; Anticipated – No **OSHA:** No **IARC:** Not classifiable as to carcinogene to humans.

**LONG TERM EFFECTS:** No data available.

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## **SECTION 4: EMERGENCY AND FIRST AID PROCEDURES**

**EYES:** Flush eyes with water for at least 15 minutes. If irritation persists, consult a physician.

**SKIN:** If irritation occurs, flush skin with water for at least 15 minutes. If irritation persists, consult a physician

**INHALATION:** If symptoms of overexposure develop, remove to fresh air. If symptoms persist, consult a physician.

**INGESTION:** Give 8 to 16 ounces of water to dilute substance. Do not induce vomiting. Consult a physician or local Poison Control Center. Never give anything by mouth to an unconscious person.

## **SECTION 5: FIRE, EXPLOSION & REACTIVITY DATA**

**FLASH POINT:** >200°F

**EXPLOSIVE LIMITS:** No data available.

**AUTOIGNITION TEMPERATURE:** No data available.

**HAZARDOUS PRODUCTS OF COMBUSTION:** Product is not flammable. Use after, carbon dioxide, dry powder or other media appropriate for materials actually involved in fire.

**EXTINGUISHING MEDIA:** Water spray, foam, dry chemical powder of carbon dioxide.

**FIRE FIGHTING INSTRUCTIONS:** None.

## **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

Sweep up for reuse when possible. Larger quantities should be collected for reuse or consigned to a licensed hazardous waste hauler for disposal in accordance with federal, state and local regulations.

## **SECTION 7. PRECAUTIONS FOR HANDLING AND STORAGE**

Store out of reach of children. Keep container closed. Store in a cool, dry location. Avoid freezing or extended storage in high temperatures and away from strong oxidizers and acid products.

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Ventilation System..... Room ventilation is normally satisfactory. Mechanical assist may be required when vapors or mist are generated.

Personal Respirators..... Respirator recommended if product is misted. Use NIOSH/MSHA approved respiratory protection.

Skin Protection..... Rubber gloves are recommended & other clothing that will prevent contact with this product.

Eye Protection..... Use safety glasses.

Exposure Limit Values:

Authorized limit Values: Particulates not otherwise classified (PNOC)

TLV deg ACGIH-USA (2002): Inhalable 10 mg/m<sup>3</sup> TWA Respirable 3 mg/m<sup>3</sup> TWA

OSHA PEL: Inhalable 15 mg/m<sup>3</sup> TWA Respirable 5 mg/m<sup>3</sup> TWA

SAEL (Vendor Acceptable Exposure Limit)

Sodium Carbonate Peroxyhydrate

SAEL (Vendor Acceptable Exposure Limit): 5 mg/m<sup>3</sup> TWA

ACGIH and TLV are registered trademarks of the American Conference of Governmental Industrial Hygienists.

SAEL is Vendor Acceptable Exposure Limit, Time-Weighted Average for 8-hour workdays.

No Specific TLV-STEL (Short Term Exposure Level) has been set. Excursions in exposure level may exceed 3 times the TLV-TWA for no more than a total of 30 minutes during a workday and under no circumstances should they exceed 5 times the TLV-TWA.

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## **SECTION 9: PHYSICAL DATA**

**Odor:** Slight citrus fragrance

**Physical State:** Light orange granular powder.

**pH RTU** 10.4 to 10.5

**Bulk Density :** N/D

**Boiling Point:** N/D

**Freezing/Melting Point:** N/E

**Vapor Pressure:** N/D

**Vapor Density:** N/D

**Solubility in Water:** Complete

## **SECTION 10: STABILITY AND REACTIVITY**

**CHEMICAL STABILITY:** Stable.

**CONDITIONS TO AVOID:** None with proper storing and handling.

**MATERIALS TO AVOID:** Strong acids and oxidizing materials.

**HAZARDOUS DECOMPOSITION:** Exposure to fire may liberate carbon dioxide, carbon monoxide, organic acids and other unidentified thermal decomposition products from this product or its packaging.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## **SECTION 11. TOXICOLOGICAL INFORMATION**

**ROUTES OF EXPOSURE:** Skin absorption, eye contact, inhalation, and ingestion.

**CARCINOGENICITY:**

**NTP:** Known – No; Anticipated – No

**OSHA:** No

**IARC:** Not classifiable as to carcinogenicity to humans.

**TERATOGENICITY, MUTAGENICITY, OR OTHER REPRODUCTIVE EFFECTS:** No data available.

**CONDITIONS AGGREGATED BY EXPOSURE:** No data available.

**SYNERGISTIC MATERIALS:** No data available.

### **Sodium Carbonate Peroxide**

Acute toxicity:

Inhalation: LC50, 1 hour, rat, >4580 mg/m<sup>3</sup>.

Oral: LD50, rat (combined sexes), 1034 mg/kg.

Dermal: LD50 lo, rabbit, >2000 mg/kg.

Irritation:

Rabbit, Severe damage (eyes).

Rabbit, Slight irritant (skin).

Sensitization: No sensitization was noted when administered as a 75% w/v induction and as a 25% w/v mixture at challenge.

### **Delimonene**

Acute Effects: Delimonene have been shown to have low oral toxicity (LD50>5 g/kg) and low dermal toxicity (LD50> 5g/kg) when tested on rabbits. Delimonene also showed low toxicity by inhalation (RD50>1 g/kg) when tested on mice. The skin irritancy of limonene in guinea pigs and rabbits is considered moderate and low, respectively. Inhalation may cause irritation of the nose, throat, and respiratory tract.

Chronic Effects: Delimonene is not classified as a carcinogen by OSHA, IARC, ACGIH or NTP. This product has not been shown to produce genetic changes when tested on bacterial or animal cells. This product does not contain known reproductive or developmental toxins. Prolonged or repeated exposure can cause drying or dermatitis of skin. Improper storage and handling may lead to the formation of a possible skin sensitizer.

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### **SECTION 12. ECOLOGICAL INFORMATION**

#### **Sodium Carbonate Peroxihydrate**

Acute ecotoxicity:

Fish, Pimephales promelas; LC50, 70.7 mg/L.

Fish, Pimephales promelas; NOEC, 96 hours, 1 mg/L.

Crustaceans, Daphnia pulex; EC50, 4.9 mg/L.

Crustaceans, Daphnia pulex; NOEC, 48 hours, 1 mg/L.

Chronic ecotoxicity: No data.

Mobility:

Air - Not applicable.

Water- Considerable solubility and mobility.

Soil/sediments - Non-significant adsorption.

#### **Delimonene**

Ecotoxicity: There is no information available at this time for Delimonene. However, a spill may produce significant toxicity to aquatic organisms and ecosystems. Sonic studies have shown that certain bacteria and fungi have the ability to degrade terpenes, decreasing their toxicity to fish. When spilled, this product may act as an oil, causing a film, sheen, emulsion or sludge at or beneath the surface of a body of water.

Persistence/Degradability: Delimonene is expected to be readily biodegradable.

Bioaccumulation/Accumulation: No appreciable bioconcentration is expected in the environment.

Mobility in Environment: Delimonene volatilizes rapidly.

### **SECTION 13. DISPOSAL CONSIDERATIONS**

Do not dispose of on the land, in surface waters, or in storm drains. Small spills and waste may be reused or flushed into a waste treatment sewer where local regulations permit. Larger quantities should be collected for reuse or consigned to a licensed hazardous waste hauler for disposal in accordance with federal, state and local regulations. **All disposal must be in accordance with all federal, state and local regulations.**

### **SECTION 14. TRANSPORTATION**

No restrictions for Ground, Air, or Maritime Transportation in accordance with 49 CFR parts 100-185.

### **SECTION 15. REGULATORY INFORMATION**

#### **US FEDERAL REGULATIONS**

**TSCA Status:** The intentional components of this product are listed. .

### **SECTION 16. OTHER INFORMATION**

This product has no established regulatory information. All regulatory information given is based on individual components of the mixture by component number. While this information and recommendations set forth herein are believed to be accurate and reliable, it is provided without warranty regarding its accuracy. Zerorez Systems, Inc., MAKES NO WARRANTY WITH RESPECT HERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON. Users must determine safe conditions for use and assume liability for any loss, injury, damage or expense resulting from use of this product.

N/A= Not applicable N/D= Not determined N/E= Not established