

MATERIAL SAFETY DATA SHEET

PAGE #: 1 OF 5

PRODUCT NAME: MACE PEN DEFENDER / KEYGUARD

MSDS NUMBER: 2008-503

PRODUCT CODE: 80344, 80365, 80366

MSDS DATE: 08/01/2008

KEY NUMBER:

EMERGENCY PHONE #'s: CHEMTREC: 800-424-9300 / 703-527-3888

Mace Personal Defense, Inc.

160 Benmont Avenue - Ste. 1
Bennington, VT 05201
802-447-1503**HEALTH****1****Hazardous****FIRE****2****Flash Point: Above 200°F, 93°C****REACTIVITY****0****Stable****SPECIFIC**

-

1. IDENTIFICATION

 See Addendum:

Ref. PAGE:

Chemical Name: OC Personal Protection Spray

Chemical Family: Irritant agent

CAS #:

Chemical Formula:

CAS Name:

Molecular Weight:

Synonyms / Common Name: OC spray

DOT Information:

2. PHYSICAL DATA

 See Addendum:

Ref. PAGE:

Appearance: Aerosol mist

Color: Light amber

State: Aerosol

Odor Characteristics: Pungent, highly irritating

pH: Not known

Viscosity: Not known

Specific Gravity (Water = 1): 1.15

Vapor Density (Air = 1): 4.2

Vapor Pressure: 60 PSIG @ 70 F

Melting Point: Not known

Boiling Point: 228 C

Flash Point: 212 F

Freezing Point: Not known

Percent Volatility: Not known

Evaporation Rate (BAC = 1): Not known

Solubility in Water: Not known

Solubility in Oil: Not known

Solubility in Acetone: Not known

3. INGREDIENTS

 See Addendum:

Ref. PAGE: 4

Material / Components	CAS #:	CAS Name	TLV Units	Approx. %
Solvay (HCF-134a)	811-97-2	1,1,1,2-tetrafluoroethane	SAEL 1,000 PPM	
Oleoresin Capsicum	8023-77-6	Capsaicin	None established	

4. FIRE AND EXPLOSION HAZARD DATA

 See Addendum:

Ref. PAGE:

Flash Point: 212 F, closed cup

Flammable Limits Lower @ 25 C 0.85
in Air % by volume: Upper @ 25 C 24.6

Extinguishing Media: Dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Special Fire Fighting Procedures: Use air-supplied respirator to protect against gases and fumes.

Unusual Fire & Explosion Hazards: Will burn if involved in a fire. Containers may explode in the heat of a fire.

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5. HEALTH HAZARD DATA

See Addendum:

PAGE #: 4

Threshold Limit Value: Not known

Effects of Overexposure:

Inhalation: May cause gagging and coughing with irritation to the lungs.

Skin Contact: May cause skin irritation to sensitive parts upon direct contact.

Eye Contact: May cause eye irritation upon direct contact.

Ingestion: May cause irritation to mouth, throat and stomach upon direct contact.

Delayed Effects: Not known

Medical Conditions Aggravated by Exposure: Not known

6. FIRST AID MEASURES

See Addendum:

PAGE #:

Inhalation: Remove the victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen. If the victim is not breathing, administer CPR. Seek immediate medical attention.

Skin Contact: If case of contact, remove contaminated clothing and wash area with plenty of soap and cool water. Do not apply salves or creams to affected area. Seek medical attention if irritation develops or persists.

Eye Contact: Hold eyelids open and flush with a steady gentle stream of cool water for at least 15 minutes. Seek medical attention if irritation develops or persists.

Ingestion: Give 1 glass of water to drink and do not induce vomiting. Contact the Poison Control Center at 1-800-222-1222.

NOTES TO PHYSICIAN: Contact the Poison Control Center at 1-800-222-1222.

7. REACTIVITY DATA

See Addendum:

PAGE #:

Stability: Presents no significant reactivity hazard.

Incompatibility: Not known
(materials to avoid)

Hazardous Combustion or Decomposition Products: Thermal decomposition may produce phosgene, hydrogen fluoride and irritating fumes.

Hazardous Polymerization: Not known

Conditions to Avoid: Contents may discharge at elevated temperature. Product will decompose at temperatures above 250 F.

8. SPILL OR LEAK PROCEDURES

See Addendum:

PAGE #:

Actions to take for Leaks & Spills: Absorb spills with vermiculite or other suitable absorbent material and remove to an approved disposal container.

Waste Disposal Method: Dispose of in accordance with current laws and regulations.

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9. SPECIAL PROTECTION INFORMATION

See Addendum: Ref. PAGE:

Respiratory Protection: Respiratory protection is normally not required in well-ventilated areas, however, NIOSH approved respiratory protection may be required when the material is used in a confined area.

Eye Protection: Splash-resistant safety glasses should be worn.

Skin Protection: Oil/chemical-resistant gloves should be worn.

Other Clothing: Oil/chemical-resistant clothing should be worn.

Other Equipment:

Engineering Controls: Provide ventilation if working in confined area.

10. HANDLING AND STORAGE

See Addendum: Ref. PAGE:

Special Precautions: Store in cool dry area away from heat, flame or strong light. Use with adequate ventilation.

Other Precautions:

11. REGULATORY INFORMATION

See Addendum: Ref. PAGE:

Workplace Classification:

12. TOXICOLOGICAL INFORMATION

See Addendum: Ref. PAGE: 5

Acute Data:

**Reproductive /
Teratology Data**

13. ECOLOGICAL INFORMATION

See Addendum: Ref. PAGE:

Fate in the Environment:

14. DISPOSAL CONDITIONS

See Addendum: Ref. PAGE:

Procedures: Dispose of in accordance with applicable environmental laws and regulations.

15. TRANSPORTATION INFORMATION

See Addendum: Ref. PAGE: 5

DOT Classification:

Warning Labels:

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16. OTHER INFORMATION

The information contained herein is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages. Various governmental agencies may have specific regulations concerning the transportation, handling, storage, use or disposal of this product which may not be reflected in this MSDS. The user should review these regulations to ensure full compliance.

3. INGREDIENTS - Ref. Pg. 1

Solvay (HCF-134a)

SAEL is Solvay 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 more than a total of 30 minutes during a workday and under no circumstances should they exceed 5 times the TLV-TWA.

5. HEALTH HAZARD DATA - Ref. Pg. 2

The health hazards of a mixture not tested as a whole are based upon the hazardous chemical present in the mixture at concentrations of greater than one percent.

The health hazard information is based upon laboratory animal test data for the individual components of this product in their pure form as provided under 29 CFR 1910.1200(d)(S)(ii). The user should consider the relevancy of this information in a manner consistent with its particular purpose.

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ADDENDUM for Section - 12. TOXICOLOGICAL INFORMATION - Ref. Pg. 3

Toxicity: Strong skin and eye irritant. Exposure to capsaicin pepper spray results in temporary blindness, lacrimation (tear production), burning sensation, pain, and redness of the skin, nasal irritation, coughing, bronchoconstriction, and dyspnea.

The following LD values were obtained from the "Capsaicin Technical Fact Sheet" of the National Pesticide Information Center, 1-800-858-7378.

Acute oral LD50 values were determined to be 97.4 mg/kg and 118.8 mg/kg in female and male mice, respectively, and 148.1 mg/kg and 161.2 mg/kg in female and male rats, respectively.

Additional LD50 values for male mice were 60-75 and 190 mg/kg depending on the carrier solution when the capsaicin was administered within the stomach.

Studies using mice have reported LD50 values ranging from 47.2 mg/kg to 2500 mg/kg.

The LD50 in humans has been estimated at 0.5-5 g/kg.

Primary routes of entry: Inhalation, skin and ingestion.

High inhaled amounts may cause dizziness, unconsciousness and asphyxia. Skin contact may cause local irritation and a general allergic reaction in sensitive individuals.

ADDENDUM for Section - 15. TRANSPORTATION INFORMATION - Ref. Pg. 3

GROUND (USA) 49 CFR, 172.101

Proper Shipping Name: Consumer Commodity
Hazard Class or Division: ORM-D

Shipper must be trained and certified. Refer to CFR 49

AIR (USA), IATA
Proper Shipping Name: Consumer Commodity
Hazard Class or Division: 9
UN/ID: ID 8000

Shipper must be trained and certified. Refer to IATA Dangerous Goods Regulations.

ADDENDUM for Section -