

Safety Data Sheet

Lacrythor Fumigant Warning Agent

Emergency Phone 1-800-424-9300 (Chemtrec)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Lacrythor Fumigant Warning Agent
Chemical Name: Trichloronitomethane
Recommended use of the chemical and restrictions on use: Warning agent

Company: Ensystem II, Inc.
Address: 2175 Village Dr., Fayetteville, NC 28304
Daytime Phone: 1-800-398-3772

2. HAZARDS IDENTIFICATION

Hazard classification

Acute toxicity -	Category 1 - Inhalation
Acute toxicity -	Category 2 - Oral
Acute toxicity -	Category 2 - Dermal
Skin corrosion -	Category (1C) (liquid contact)
Eye damage -	Category 1 (liquid contact)
Eye irritation -	Category 2A (vapor contact)
Specific target organ - single exposure -	Category 1 - Inhalation
Specific target organ toxicity - repeated exposure -	Category 2 - Inhalation
Aquatic Toxicity Acute -	Category 1

Label Elements

Hazard pictograms



Signal Word: DANGER

Hazards

Fatal if inhaled, swallowed, or in contact with skin.
Causes serious skin burns and eye damage.
Causes serious eye irritation (vapor contact).
Causes damage to the respiratory tract and to lungs from single exposure or through prolonged or repeated exposure by inhalation.
Very toxic to aquatic life

Precautionary Statements

Prevention

Do not breathe gas or vapors. Do not get in eyes, on skin, or on clothing. Wear respirator, eye, hand, and skin protection in accordance with the product label. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Keep away from heat/sparks/flames/hot surfaces. No Smoking. Store away from combustible materials. Avoid release to the environment. Wash skin thoroughly after handling.

Response

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CONTROL CENTER or doctor/physician.

IF IN EYES: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses if present after the first 5 minutes, then continue rinsing eyes. Immediately call a POISON CONTROL CENTER or doctor/physician. For vapor contact, if eye irritation persists, get medical advice or attention. IF

ON SKIN: Take off contaminated clothing immediately. Wash with plenty of water and soap. Immediately call a physician or poison control center. IF

SWALLOWED: Immediately call a physician or poison control center. Rinse mouth. Do not induce vomiting. Get medical advice if you feel unwell or if eye irritation persists. Wash contaminated clothing before reuse. In case of fire, evacuate area. Fight fire remotely due to the risk of cylinder rupture. Use water, dry chemical or any other conventional media.

Storage

Store in a well ventilated place. Keep container tightly closed. Store locked up. Store at temperatures not exceeding 55°C (131°F)

Disposal

Dispose of contents/ container to an approved waste disposal facility.

Other hazards

No data available

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chloropicrin 99.5% CAS# 76-06-2

4. FIRST-AID

In all cases of overexposure, when symptoms such as nausea, difficulty in breathing, abdominal pain, slowing of movements and speech or numbness in extremities are exhibited, get medical attention immediately. Take affected person to a doctor or emergency treatment facility.

Description of first-aid measures

General advice: First-Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists, refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Excessive exposure may severely irritate upper respiratory tract. If breathing is difficult, oxygen should be administered by qualified personnel. If the person is not breathing and has no pulse, consider cardiopulmonary resuscitation (CPR); use pocket resuscitation mask, bag valve mask etc., to avoid risk of poisoning rescuer. To prevent pulmonary edema, have the person inhale 5 shots of an aerosol corticosteroid metered dose inhaler (if available), such as beclomethasone or fluticasone, etc., every 10 minutes until the person is evaluated by a physician. Consult a physician in all cases.

Eye Contact: Hold eye open and rinse slowly and gently with water for at least 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

Skin Contact: Immediately apply water to contaminated area of clothing before removing. Remove contaminated clothing, shoes and other items covering skin. Rinse skin immediately with plenty of water for 15-20 minutes.

Ingestion: Call a Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the Poison Control Center. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: Aside from the information found under description of first aid measures above, and indication of immediate medical attention and special treatment needed below, any additional important symptoms and effects are described in Section: 11 Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Maintain adequate ventilation and oxygenation of the patient. Chloropicrin, (CAS# 76-06-2) is used as a warning agent it is the active ingredient in tear gas and will cause tearing. Methemoglobinemia may aggravate any pre-existing condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias. If burn is present, treat as any thermal burn, after decontamination. May cause tissue destruction leading to stricture. If lavage is performed, suggest endotracheal response to reactions of patient. Persons receiving a significant exposure to this material by inhalation should be observed 24-48 hours for delayed pulmonary edema.

5. FIRE-FIGHTING MEASURES

Fire Hazards: Sealed containers may rupture when exposed to excessive heat or flame. Thermal decomposition during a fire can produce toxic fumes and irritating gases.

Extinguishing Media: This product does not burn. All means of extinguishing are acceptable. If cylinders are in a fire area, remove them if possible. Alternately, water can be used to keep them cool to prevent rupture of the container due to heat

Hazardous Combustion Products: Carbon oxides (CO_x), phosgene, nitrogen oxides (NO_x), chlorinated compounds, irritating fumes and smoke.

Advice for firefighters

Fire fighting procedures: Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases can accumulate. Use water spray to cool fire exposed containers and fire-affected zone until fire is out and danger of re-ignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of container. Move container from fire area if this is possible without hazard. Contain firewater run-off if possible. Firewater run-off, if not contained, may cause environmental damage. Review the Accidental Release Measures and the Ecological Information sections of this SDS.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate safety clothing, respiratory protection devices, and eye/face protection (see Section 8). Evacuate unprotected personnel that are nearby.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and /or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleanup:

Small spills: Absorb and contain any spilled material. Place material in a marked container and dispose of it in an approved manner. Consult local authorities on approved disposal facility. Large spills: Contact Ensystex Inc. for cleanup assistance. See Section 13, Disposal considerations, for additional information.

7. HANDLING AND STORAGE

Handling: Use good personal hygiene. Follow proper container handling directions. Avoid breathing vapor. Wear chemical protective equipment when handling. Do not wear goggles, instead wear a face shield to prevent vapors collecting and held in close contact with the eyes. See Section 8 for control measures.

Storage: Keep out of reach of children. Product should be stored in compliance with local regulations. Store in a well ventilated, cool, dry area. Keep away from heat sources. Store in original containers only. Do not store near food, foodstuffs, drugs or potable water.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation and respiratory protection information given below is applicable to handling sulfuryl fluoride during production, packaging, transportation and storage. Applicators should refer to the product label for personal protection equipment requirements during application.

Exposure Limits are listed below:

Component	Regulation	Type of listing	Value/Notation
Chloropicrin CAS# 76-06-2	US OSHA, Table z-1 Limits for Air Contaminants, 29 CFR 1900.1000	TWA	0.1 ppm
	US ACGIH TLV	TWA	0.1 ppm
	US NIOSH, Recommended Exposure Limits	TWA	0.1 ppm
	US NIOSH, Documentation for Immediately Dangerous to Life or Health	IDLH	2 ppm

These recommendations are for Manufacturing. Applicators should see the product label for proper personal protective equipment.

Exposure controls

Provide general and/or local exhaust ventilation to control airborne levels below the exposure limits.

General Hygiene: Wash hands and face before breaks and immediately after handling product. Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment as required. Keep work clothes separate.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guidelines. When respiratory protection is required or during emergency conditions, use a NIOSH certified respirator with either an organic vapor removing cartridge with a pre-filter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) of a canister approved for pesticides (MSHA/NIOSH prefix TC-14G).

Hand/Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. A safety shower should be located in the immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water. Launder clothing before reuse, or dispose of properly.

Eye/Face Protection: Wear safety glasses with side shields to prevent vapors or mists from entering the eyes. If using a full-face shield, always wear safety glasses along with the face shield to ensure adequate protection of the eyes. Do not wear goggles.

Ingestion: Avoid ingestion of even small amounts. Do not consume or store food or tobacco in the work area. Wash hands and face thoroughly before smoking or eating.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor: Clear liquid, Irritating tear gas odor

pH: N/A

Flash Point/Range: Non combustible

Water solubility: 0.2g/100g

Vapor pressure: 18.3 mmHg @ 68 °F (20 °C)

Bulk Density: 13.83 lb/gal

Relative vapor density (air=1): ~5.7 at 68 °F (20 °C)

Boiling point/range: 233°F (112°C)

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal storage conditions.

Conditions to Avoid: Avoid heating product to its decomposition temperature.

Materials to Avoid: Avoid contact with organic amines, reducing agents and sulfuric acid. Incompatible with containers or equipment made of aluminum, magnesium or their alloys.

Hazardous Decomposition Products: Decomposition products can include but aren't limited to: toxic gases including nitrogen oxides (NO_x), phosgene and carbon oxides (CO_x).

Hazardous Polymerization: Will not occur.

Additional Information: Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: Inhalation LC50/Rat/126.6 mg/m³; Oral LD50/Rat/37.5 mg/kg; Dermal/LD50/rabbit/100 mg/kg

Skin irritation

Mild

Eye irritation

Mild.

Sensitization

N/A

Chronic Toxicity: Long-term inhalation studies show respiratory tissue subject to inflammatory damage.

No teratogenic effect

No carcinogenic effects

No reproductive toxicity effects

No mutagenic effects

12. ECOTOXICOLOGICAL INFORMATION

Toxicity

Highly toxic to fish, acutely toxic to aquatic organisms

Acute toxicity to fish.

LC₅₀, Rainbow trout, 96 Hour, 11 µg/l

LC₅₀, Bluegill, 96 Hour, 50 µg/l

Acute toxicity to aquatic invertebrates

EC₅₀, Daphnia magna (water flea), 48 Hour, 120 µg/l

Toxicity to above ground organisms

LD₅₀, Dermal, Apis mellifera (bees), >100 µg/l

Persistence and degradability

Decomposes in the environment. Half-lives in air, water and soil, range from 5 minutes to 20 days depending on conditions.

13. DISPOSAL CONSIDERATIONS

Contact Ensystex II for shipping instructions to return empty cylinders. Follow proper cylinder handling and waste disposal guidelines (see label).

14. TRANSPORT INFORMATION

DOT Proper Shipping Name: Chloropicrin

Technical Shipping Name: Chloropicrin

UN # UN1580

DOT Hazard Class: 6.1

DOT Packing Group: I

Description: UN1580, Poisonous Inhalation Hazard, Hazard Zone B

Classification for SEA transport (IMO-IMDG):

Proper Shipping Name: Chloropicrin

UN # UN1580

Hazard Class: 6.1

Packing group I

Marine pollutant: Yes

Description: UN1580, Marine Pollutant, Poison Inhalation Hazard, Zone B

Classification for AIR transport (IATA/ICAO):

Transport forbidden by regulation.

15. REGULATORY INFORMATION

The information herein is given in good faith, but no warranty, expressed or implied, is made. Consult Ensystex II for further information.

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication standard, 29 CFR 1910.1200

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986)

Section 302. Extremely Hazardous Substance Notification: This material is not known to contain any Extremely Hazardous Substances.

Sections 311 and 312

Immediate health hazard

Section 313. Toxic Chemicals: Chloropicrin (CAS# 76-06-2)

Toxic Substances Control Act (TSCA):

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

16. Other Information**Hazard rating System****NFPA**

Health	Fire	Reactivity
4	0	3

HMIS

Health	Fire	Reactivity
4	0	3

Disclaimer: The information of this SDS is based on the present state of our knowledge. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.

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