

MATERIAL SAFETY DATA SHEET

3584

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Rev.: E

SECTION 1 NAME & HAZARD SUMMARY

Material name: ERADICANE® 6.7-E

Hazard summary (as defined by OSHA Hazard Comm. Std., 29 CFR 1910.1200):

Physical hazards: Combustible liquid

Health hazards: Irritant (skin, eye), harmful (cholinesterase inhibitor).

Read the entire MSDS for a more thorough evaluation of the hazards.

SECTION 2 INGREDIENTS	%	OSHA PEL
Active ingredient:		
S-Ethyl dipropylthiocarbamate (EPTC; CAS 759-94-4)	82.6	Not listed
Other ingredients:	17.4	
Herbicide Antidote (R-29148)(CAS 52836-31-4)		Not listed
Kerosene (CAS 8008-20-6)		Not listed
Surfactant blend		Not listed

Ingredients not precisely identified are proprietary or nonhazardous.
Values are not product specifications. ca = approximately.

SECTION 3 PHYSICAL DATA

Solubility in water: Not soluble in water. Readily forms an emulsion
in water

Specific gravity: 0.97 at 20°C/68°F

Appearance and odor: Amber liquid

SECTION 4 FIRE AND EXPLOSION HAZARD DATA

Flash point (and method): 186°F, 85.6°C (Tag CC)

Autoignition temperature: No data

Flammable limits (STP): No data

Fire hazard:

This material will support combustion and may decompose under fire
conditions to give off toxic materials.

Firefighting technique:

Vapors may be irritating to the respiratory tract and may cause breathing
difficulty and pulmonary edema. Symptoms may be delayed several hours or
longer depending upon exposure. As in any fire, prevent human exposure
to fire, smoke, fumes or products of combustion. Evacuate nonessential
personnel from the fire area. Wear full face self-contained breathing
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SECTION 4 FIRE AND EXPLOSION HAZARD DATA (continued)

Firefighting technique (continued):

apparatus and impervious clothing (e.g. gloves, hoods, suits and rubber boots). Use standard firefighting techniques in extinguishing fires involving this product. If drums are not leaking, keep cool with a water spray. High pressure water hose may spread the product from broken containers increasing contamination hazards. Use of contaminated buildings, areas and equipment must be prevented until they are properly decontaminated.

SECTION 5 REACTIVITY DATA

Stability:

Stable under normal conditions.

Incompatibility:

The product is relatively nonreactive. It will not react with water. The product is not corrosive to materials commonly used in the construction of process equipment, storage and shipping containers.

Hazardous decomposition products:

Combustion products: Toxic materials.

Hazardous polymerization:

Will not occur.

SECTION 6 HEALTH HAZARD ASSESSMENT

General:

The active ingredient, S-ethyl dipropylthiocarbamate, produces mild cholinesterase inhibition in experimental animals. Symptoms of cholinesterase inhibition may include salivation, sweating, headache, nausea, muscle twitching, tremors, incoordination, blurred vision, tears, abdominal cramps, diarrhea and chest discomfort.

The following toxicity data refer to the ERADICANE 6.7-E formulation.

Ingestion:

The acute oral LD50 in rat is 2000-2870 mg/kg. This material is classified as "slightly toxic" by ingestion. A single oral dose of 1000 mg/kg produced decreased physical activity, lacrimation and 10 percent mortality in female rats.

Symptoms associated with ingestion of kerosene may be central nervous system depression (e.g. drowsiness, dizziness, loss of coordination and fatigue). Small amounts of the hydrocarbon solvent, if aspirated into the lungs during ingestion or subsequent vomiting may cause pneumonitis.

Eye contact:

This material was extremely irritating in rabbit eye studies. Irritation with redness and tearing, and possible corneal injury may occur after human eye contact.

Skin contact:

This material was mildly irritating in rabbit dermal irritation studies. Short contact periods with human skin will probably not produce irritation. Mild irritation with redness, itching or burning can develop following repeated or prolonged contact with human skin.

SECTION 6 HEALTH HAZARD ASSESSMENT (continued)

Skin absorption:

The acute dermal LD50 in rabbit is greater than 4.0 g/kg. This material is not likely to be toxic by skin absorption.

Inhalation:

The acute inhalation LC50 after a 4-hour exposure is 6.5 mg/l (nominal concentration, actual concentration not determined) in rats. Signs of toxicity included eye squint, lacrimation, salivation, nasal discharge, dyspnea and mortality. Inhalation of mists or vapors of Eradicane 6.7-E may cause headache or nausea.

Other effects of overexposure:

Laboratory tests in animals have shown that exposure to the active ingredient in this product, followed by ingestion of alcohol, may cause an adverse reaction, including low blood pressure, rapid heart beat, and flushing of the skin. Consumption of alcohol during and after exposure to this product should be avoided.

This product is a cholinesterase inhibitor. Severe cases of cholinesterase inhibition may lead to convulsions, pulmonary edema, respiratory failure, and death. Symptoms of cholinesterase inhibition may include salivation, tearing, sweating, muscle twitching, tremors, incoordination, headache, dizziness, nausea, cramps, and diarrhea.

The principal routes of exposure are skin contact with the product and inhalation of its mists or vapors.

The active ingredient has also shown adverse effects on blood clotting in laboratory animals. Extensive testing in workers producing and formulating Eptam (containing the same active ingredient as Eradicane) showed no evidence of that abnormality. Blood clotting abnormalities in humans might cause unusual bruising or a bleeding tendency.

In lifetime studies in experimental animals, the active ingredient has caused nerve, muscle and heart muscle changes. An epidemiologic survey of workers producing and formulating Eptam has not shown evidence of these effects. Signs and symptoms of nerve damage may include weakness, numbness and tingling sensations of the hands and feet, muscle cramps and loss of motor function.

R-29148, present at low concentrations in Eradicane 6.7-E, has demonstrated a potential to cause a small increase in liver tumors in rats at the highest dose tested in a lifetime feeding study. The ingredient is not, however, listed as a carcinogen by NTP, IARC or OSHA.

This product contains kerosene as a solvent. In a lifetime skin painting study in mice, kerosene showed a minimal to moderate potential to cause skin tumors. Kerosene is not, however, listed as a carcinogen by NTP, IARC or OSHA. Prolonged skin contact with this product should be avoided.

There are no data available which identify any medical conditions that are generally recognized as being aggravated by exposure to this product.

First aid procedures:

CALL A POISON CENTER 1-800-FASTMED (327-8633) OR A PHYSICIAN IMMEDIATELY.

If a known exposure occurs or is suspected, immediately start the recommended procedures below. Simultaneously contact a Poison Center, a physician or the nearest hospital.

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SECTION 6 HEALTH HAZARD ASSESSMENT (continued)

First aid procedures (continued):

NOTE:

Be sure to advise the person contacted that the product is a cholinesterase inhibitor. Inform the person contacted of the type and extent of exposure, describe the victim's symptoms, and follow the advice given.

Skin: Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

Eyes: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eye and lids with water. Do not attempt to neutralize with chemical agents. Obtain medical attention as soon as possible. Oils or ointments should not be used at this time. Continue the flushing for an additional 15 minutes if a physician is not immediately available.

Ingestion: If swallowed, immediately give several glasses of water but do not induce vomiting. This product contains kerosene. Inducing vomiting to remove this slightly toxic material from the stomach can increase the risk of chemical pneumonitis and pulmonary edema due to aspiration of stomach contents. If vomiting does occur, give fluids again. Have a physician determine if condition of patient will permit induction of vomiting or evacuation of stomach. (Never give anything by mouth to an unconscious person.)

Inhalation: Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

Note to Physician: If cholinesterase inhibition is suspected, atropine by injection is antidotal. Pralidoxime chloride (2-PAM, Protopam) is not recommended as an antidote for this compound. Continued absorption of the chemical may occur resulting in total relapse after initial improvement. Very close supervision of the patient is indicated for at least 48-72 hours.

Thiocarbamates have been shown in laboratory animals to cause a disulfiram (ANTABUSE®)-type reaction in combination with alcohol.

SECTION 7 SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled:

Make sure all personnel involved in the spill cleanup follow good industrial hygiene practices. A small spill can be handled routinely. Use adequate ventilation or wear an air-supplied respirator to prevent inhalation. Wear suitable protective clothing and eye protection to prevent skin and eye contact. Use the following procedures:

1. Do not allow material to enter streams, sewers or other waterways.
2. Spread a suitable absorbent such as clay on the spill, and shovel into an open drum.
3. Generously cover the contaminated areas with common, household detergent (e.g. TIDE, registered trademark Proctor & Gamble Company). Using a stiff brush and small amounts of water, work the detergent into the remaining spilled material forming a slurry. Brush the slurry into cracks and crevices and allow to stand for 2-3 minutes. Be careful to completely avoid skin or eye contact. Do not splatter on oneself or bystanders.

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SECTION 7 SPILL OR LEAK PROCEDURES (continued)

Steps to be taken in case material is released or spilled (continued):

4. Spread absorbents on the slurry liquid and shovel mixture into the open drum.
5. Repeat #3 and 4 if necessary.
6. Rinse with a small amount of water and use absorbent to collect the wash solution. Shovel into the open drum.
7. Seal drum and dispose of contaminated material in a facility permitted for hazardous waste. Large spills should be handled according to a spill plan. Otherwise, in case of emergency call, day or night, 800-424-9300, CHEMTREC.

***** Disposal method:**

As of January 28, 1997 discarded product is not a hazardous waste under RCRA, 40 CFR 261.

Container disposal:

Empty container retains product residue. Observe all hazard precautions. Keep away from heat, sparks and flames. Do not weld or use a cutting torch on or near container. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue and puncture or otherwise destroy empty container before disposal.

SECTION 8 SPECIAL PROTECTION INFORMATION

TLV® or suggested control value:

No ACGIH TLV or OSHA PEL is assigned to this mixture. Control of exposure to below the PEL for the ingredients (see Section 2) may not be sufficient. Minimize exposure in accordance with good hygiene practice. ZENECA Inc. operates its facilities such that employee exposure to active ingredient is limited to below 0.4 mg/M³.

Ventilation:

This product is intended for use outdoors where engineering controls are not necessary. If use conditions are different (e.g. product reformulation or repackaging), employee exposure should be minimized using traditional techniques such as enclosed system design and/or local exhaust ventilation.

Respiratory protection:

If needed, use MSHA/NIOSH approved respirator for pesticides.

Protective clothing:

Gloves determined to be impervious under the conditions of use. Depending on conditions of use, additional protection may be required such as apron, arm covers, or full body suit. Wash contaminated clothing before rewearing. Use adequate clothing to prevent skin contact. Clean clothing on a routine basis.

Eye protection:

Chemical tight goggles; full faceshield in addition if splashing is possible.

SECTION 8 SPECIAL PROTECTION INFORMATION (continued)

Other protective equipment:

An adequate supply of clean potable water should be available to allow thorough flushing of skin and eyes in event of contact with this compound.

SECTION 9 SPECIAL PRECAUTIONS OR OTHER COMMENTS

Special precautions or other comments:

Follow procedures specified in the National Fire Protection Association codes and standards for handling combustible liquids. Prevent skin and eye contact. Avoid breathing vapors or aerosols. Do not store near feed, food, or within the reach of children. Containers should be stored in a cool, dry, well-ventilated area. Store away from flammable materials and sources of heat and flame. Do not store near seeds or fertilizers. Exercise due caution to prevent damage to or leakage from the container. Avoid inhalation of spray mist. Showers at the end of the work day are desirable. Workers must follow good personal hygiene practices. Wash with soap and water immediately after use or contact. Do not eat, drink, or smoke in areas where the material is being used. Keep food and animal feed in separate area away from the storage/use location.

SECTION 10 REGULATORY INFORMATION

TSCA (Toxic Substances Control Act) Regulations, 40 CFR 710:

This product is a pesticide and is exempt from TSCA regulation.

CERCLA and SARA Regulations (40 CFR 355, 370, and 372):

Section 313 Supplier Notification. This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372: 82.6% EPTC (CAS 759-94-4)

EPA Reg. No.: 10182-223

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the last issue date.