

## Chemical Safety Data Sheet MSDS / SDS

## Eradicane

Revision Date:2023-05-06 Revision Number:1

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**Product identifier**

Product name : Eradicane  
CBnumber : CB4169538  
CAS : 759-94-4  
EINECS Number : 212-073-8  
Synonyms : EPTC ,S-Ethyl dipropylthiocarbamate

**Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

**Company Identification**

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 400-158-6606

## SECTION 2: Hazards identification

**Classification of the substance or mixture**

Acute toxicity - Category 4, Oral

**Label elements****Pictogram(s)**

□

Signal word : Warning

**Hazard statement(s)**

H315 Causes skin irritation  
H317 May cause an allergic skin reaction  
H319 Causes serious eye irritation  
H331 Toxic if inhaled  
H411 Toxic to aquatic life with long lasting effects

**Precautionary statement(s)**

P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

#### **Prevention**

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

#### **Response**

P301+P317 IF SWALLOWED: Get medical help.

P330 Rinse mouth.

#### **Storage**

none

#### **Disposal**

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

#### **Other hazards**

no data available

---

## SECTION 3: Composition/information on ingredients

### **Substance**

Product name	: Eradicane
Synonyms	: EPTC ,S-Ethyl dipropylthiocarbamate
CAS	: 759-94-4
EC number	: 212-073-8
MF	: C9H19NOS
MW	: 189.32

---

## SECTION 4: First aid measures

### **Description of first aid measures**

#### **If inhaled**

Fresh air, rest. Refer for medical attention.

#### **Following skin contact**

Remove contaminated clothes. Rinse and then wash skin with water and soap.

#### **Following eye contact**

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

#### **Following ingestion**

Rinse mouth. Rest. Refer for medical attention .

### **Most important symptoms and effects, both acute and delayed**

SYMPTOMS: Symptoms of exposure to this compound may include headache, giddiness, nervousness, blurred vision, weakness, nausea,  
Chemical Book

cramps, diarrhea, sweating, miosis, tearing, salivation, vomiting and cyanosis. (NTP, 1992)

### **Indication of any immediate medical attention and special treatment needed**

#### **Absorption, Distribution and Excretion**

Root absorption of eptc was reported ... in oat ... & in alfalfa. the absorbed eptc was readily moved upward to the foliage. this chemical is also absorbed by the coleoptiles & can be translocated downward to the roots. ... the radiolabeled eptc accumulates in growing stem & root tips after the application to the leaves. when the application was made to the roots, the distribution was more uniform.

---

## SECTION 5: Firefighting measures

### **Extinguishing media**

Fires involving this compound should be controlled with a dry chemical, carbon dioxide or Halon extinguisher. (NTP, 1992)

### **Specific Hazards Arising from the Chemical**

Flash point data are not available for this chemical, but it is probably combustible. (NTP, 1992)

### **Advice for firefighters**

Use water spray, foam, powder, carbon dioxide.

---

## SECTION 6: Accidental release measures

### **Personal precautions, protective equipment and emergency procedures**

Do NOT wash away into sewer. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

### **Environmental precautions**

Do NOT wash away into sewer. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

### **Methods and materials for containment and cleaning up**

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

---

## SECTION 7: Handling and storage

### **Precautions for safe handling**

NO open flames. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

### **Conditions for safe storage, including any incompatibilities**

Provision to contain effluent from fire extinguishing. Separated from food and feedstuffs. Ventilation along the floor.... Indefinite storage life

under normal ambient conditions.

---

## SECTION 8: Exposure controls/personal protection

### Control parameters

#### Occupational Exposure limit values

no data available

#### Biological limit values

no data available

### Exposure controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

### Individual protection measures

#### Eye/face protection

Wear safety spectacles or eye protection in combination with breathing protection.

#### Skin protection

Protective gloves.

#### Respiratory protection

Use ventilation, local exhaust or breathing protection.

#### Thermal hazards

no data available

---

## SECTION 9: Physical and chemical properties

### Information on basic physicochemical properties

Physical state	Liquid
Colour	Clear colorless
Odour	Aromatic odor
Melting point/freezing point	no data available
Boiling point or initial boiling point and boiling range	127°C (20 torr)
Flammability	Combustible. Liquid formulations containing organic solvents may be flammable. Gives off irritating or toxic fumes (or gases) in a fire.
Lower and upper explosion limit/flammability limit	no data available
Flash point	116°C
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available

Kinematic viscosity	no data available
Solubility	Chloroform (Slightly), Methanol (Slightly)
Partition coefficient n-octanol/water	log Kow = 3.21
Vapour pressure	0.034 mm Hg at 95° F (NTP, 1992)
Density and/or relative density	0.95
Relative vapour density	(air = 1): 6.5
Particle characteristics	no data available

---

## SECTION 10: Stability and reactivity

### Reactivity

Decomposes on heating and on burning. This produces toxic fumes including nitrogen oxides and sulfur oxides.

### Chemical stability

Stable under storage conditions.

### Possibility of hazardous reactions

ETHYL DIPROPYLTHIOCARBAMATE may generate flammable gases with aldehydes, nitrides, and hydrides. Incompatible with acids, peroxides, and acid halides.

### Conditions to avoid

no data available

### Incompatible materials

no data available

### Hazardous decomposition products

When heated to decomposition it emits very toxic fumes of /nitrogen oxides and sulfur oxides/.

---

## SECTION 11: Toxicological information

### Acute toxicity

- Oral: LD50 Rat male albino oral 2550 mg/kg
- Inhalation: no data available
- Dermal: no data available

### Skin corrosion/irritation

no data available

### Serious eye damage/irritation

no data available

### Respiratory or skin sensitization

no data available

### **Germ cell mutagenicity**

no data available

### **Carcinogenicity**

Cancer Classification: Not Likely to be Carcinogenic to Humans

### **Reproductive toxicity**

no data available

### **STOT-single exposure**

The substance may cause effects on the central nervous system.

### **STOT-repeated exposure**

no data available

### **Aspiration hazard**

A harmful contamination of the air will not or will only very slowly be reached on evaporation of this substance at 20°C; on spraying or dispersing, however, much faster.

---

## **SECTION 12: Ecological information**

### **Toxicity**

Toxicity to fish: LC50 *Salmo gairdneri* (Rainbow trout) 19 ppm/96 hr /Conditions of bioassay not specified/ /Technical eptam

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

### **Persistence and degradability**

AEROBIC: Radio-labeled eptam (initial concn of 2 ppm) was incubated at 25 deg C and pH 5.3 in sludge- and manure-amended soils; after a 60 day test period, 65-66 and 62-65% <sup>14</sup>C-carbon dioxide evolution was observed, respectively(1). In a heavy silt loam, heavy silt and fine sandy loam which all had 3-4 yrs previous exposure to eptam, about 100% (initial concn not given) degradation was observed after 12-15 days. In the same time period, about 10-20% loss of eptam was noted in sterile soil samples(2); this may have been due to volatilization. In a heavy silt loam, heavy silt and fine sandy loam which had no previous exposure to eptam, about 100%, 20% and 20% (initial concn not given) degradation was observed after 12, 15 and 15 days, respectively(2). In a sandy loam soil (pH 6) incubated at 28 deg C, 93% and 68% carbon dioxide production was observed after 30 days for concns of 150 and 1500 ppm eptam(3). Laboratory tests to measure the aerobic soil degradation rates of eptam indicated half-lives of 36 to 75 days(4). The rate of eptam degradation decreases with time(4).

### **Bioaccumulative potential**

The bioaccumulation and elimination of <sup>14</sup>C-EPTC by bluegill sunfish was investigated in a dynamic flow-through system, where the fish were exposed for 28 days to radiolabeled <sup>14</sup>C-eptam at 22 deg C, followed by depuration in EPTC free water for 14 days(1). Bioconcentration factors were 37, 60, and 110, respectively, in the edible, whole fish, and non-edible fish tissues(1). According to a classification scheme(2), the whole-fish BCF value suggests the potential for bioconcentration in aquatic organisms is moderate(SRC).

## Mobility in soil

The avg Koc of eptam is 200; and measured values of Koc range from 170-280(1). Experimentally-determined Kocs are: 283 in soil with 1.0-4.5% organic content and 109 in soil with 30% organic content(2). Koc values for eptam were measured for 4 soil series with various organic matter (OM%) levels(1): e.g., Atterberry (2.2%), Columbia (1.1%), Keeton (0.3%), and Sorrento (1.8%); the Koc values were 136, 146, 264, and 143, respectively(3). According to a classification scheme(4), these Koc values suggest that eptam is expected to have moderate to high mobility in soil(SRC). Eptam has low affinity for binding to soil suggesting a potential to leach to groundwater(3).

## Other adverse effects

no data available

---

# SECTION 13: Disposal considerations

## Disposal methods

### Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

---

# SECTION 14: Transport information

## UN Number

ADR/RID: UN2902 (For reference only, please check.)

IMDG: UN2902 (For reference only, please check.)

IATA: UN2902 (For reference only, please check.)

## UN Proper Shipping Name

ADR/RID: PESTICIDE, LIQUID, TOXIC, N.O.S. (For reference only, please check.)

IMDG: PESTICIDE, LIQUID, TOXIC, N.O.S. (For reference only, please check.)

IATA: PESTICIDE, LIQUID, TOXIC, N.O.S. (For reference only, please check.)

## Transport hazard class(es)

ADR/RID: 6.1 (For reference only, please check.)

IMDG: 6.1 (For reference only, please check.)

IATA: 6.1 (For reference only, please check.)

## Packing group, if applicable

ADR/RID: I (For reference only, please check.)

IMDG: I (For reference only, please check.)

IATA: I (For reference only, please check.)

## **Environmental hazards**

ADR/RID: No

IMDG: No

IATA: No

## **Special precautions for user**

no data available

## **Transport in bulk according to IMO instruments**

no data available

---

# SECTION 15: Regulatory information

## **Safety, health and environmental regulations specific for the product in question**

### **European Inventory of Existing Commercial Chemical Substances (EINECS)**

Listed.

### **EC Inventory**

Listed.

### **United States Toxic Substances Control Act (TSCA) Inventory**

Listed.

### **China Catalog of Hazardous chemicals 2015**

Not Listed.

### **New Zealand Inventory of Chemicals (NZIoC)**

Not Listed.

### **PICCS**

Not Listed.

### **Vietnam National Chemical Inventory**

Listed.

### **IECSC**

Not Listed.

### **Korea Existing Chemicals List (KECL)**

Not Listed.

---

# SECTION 16: Other information

## **Abbreviations and acronyms**

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association



TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

## References

IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>

HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pagelD=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pagelD=0&request_locale=en)

CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>

Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>

ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

## Other Information

If the substance is formulated with solvents also consult the ICSCs of these materials. Carrier solvents used in commercial formulations may change physical and toxicological properties. The relation between odour and the occupational exposure limit cannot be indicated.

### Disclaimer:

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.