


International Chemical Safety Cards

ETHOPROPHOS

ICSC: 1660



O-ethyl-S,S-dipropyl phosphorodithioate
 Phosphorodithioic acid, O-ethyl S,S-dipropyl ester
 Ethoprop
 $C_8H_{19}O_2PS_2$
 Molecular mass: 242.3

ICSC # 1660
 CAS # 13194-48-4
 RTECS # [TE4025000](#)
 UN # 3018
 EC # 015-107-00-8
 October 11, 2006 Validated

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Combustible. Gives off irritating or toxic fumes (or gases) in a fire. Heating will cause rise in pressure with risk of bursting.	NO open flames.	Water spray, dry powder, carbon dioxide, alcohol-resistant foam.
EXPLOSION			In case of fire: cool drums, etc., by spraying with water but avoid contact of the substance with water.
EXPOSURE		PREVENT GENERATION OF MISTS! STRICT HYGIENE!	IN ALL CASES CONSULT A DOCTOR!
•INHALATION	Dizziness. Nausea. Sweating. Muscle twitching. Pupillary constriction, muscle cramp, excessive salivation. Laboured breathing. Convulsions. Unconsciousness.	Local exhaust or breathing protection.	Fresh air, rest. Artificial respiration may be needed. Refer immediately for medical attention.
•SKIN	MAY BE ABSORBED! (See Inhalation).	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer immediately for medical attention. Wear

			protective gloves when administering first aid.
•EYES	MAY BE ABSORBED! Blurred vision.	Face shield or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
•INGESTION	Abdominal cramps. Diarrhoea. Vomiting. (Further see Inhalation).	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Give a slurry of activated charcoal in water to drink. Refer immediately for medical attention.


SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Personal protection: complete protective clothing including self-contained breathing apparatus. Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT let this chemical enter the environment.	Provision to contain effluent from fire extinguishing. Separated from food and feedstuffs. Store in an area without drain or sewer access. Ventilation along the floor.	Do not transport with food and feedstuffs. Marine pollutant. T+ symbol N symbol R: 25-26/27-43-50/53 S: 1/2-27/28-36/37/39-45-60-61 UN Hazard Class: 6.1 UN Packing Group: I Signal: Danger Skull-Health haz-Enviro Fatal if swallowed Fatal in contact with skin Fatal if inhaled Causes damage to nervous system Very toxic to aquatic life
SEE IMPORTANT INFORMATION ON BACK		
ICSC: 1660	Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.	

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ETHOPROPHOS

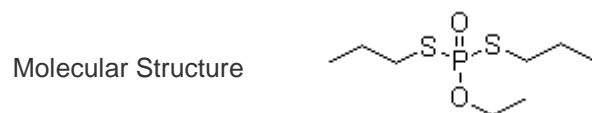
ICSC: 1660

I M P O R T A N T	PHYSICAL STATE; APPEARANCE: PALE YELLOW LIQUID, WITH CHARACTERISTIC ODOUR.	ROUTES OF EXPOSURE: The substance can be absorbed into the body in hazardous amounts by inhalation, through the skin, eyes and by ingestion. 511000,13515000 511000,13515000
	PHYSICAL DANGERS:	INHALATION RISK: Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed.
	CHEMICAL DANGERS: The substance decomposes at room temperature producing flammable n-Propylmercaptan (see ICSC 1492), and on heating producing toxic fumes including phosphorus oxides and sulfur oxides .	EFFECTS OF SHORT-TERM EXPOSURE:

T D A T A	<p>OCCUPATIONAL EXPOSURE LIMITS: TLV not established. MAK not established.</p> <p>Cholinesterase inhibition. The substance may cause effects on the nervous system, resulting in convulsions and respiratory depression. Exposure may result in death. The effects may be delayed. Medical observation is indicated.</p> <p>EFFECTS OF LONG-TERM OR REPEATED EXPOSURE: Cholinesterase inhibitor; cumulative effect is possible: see acute hazards/symptoms.</p>								
PHYSICAL PROPERTIES	<table border="0"> <tr> <td>Boiling point at 0.03kPa: 86-91°C</td> <td>Vapour pressure, Pa at 20-25°C: 0.05</td> </tr> <tr> <td>Melting point: -13°C</td> <td>Relative vapour density (air = 1): 8.4</td> </tr> <tr> <td>Relative density (water = 1): 1.09</td> <td>Flash point: see Notes</td> </tr> <tr> <td>Solubility in water, g/100 ml at 20°C: 0.075</td> <td>Octanol/water partition coefficient as log Pow: 3.6</td> </tr> </table>	Boiling point at 0.03kPa: 86-91°C	Vapour pressure, Pa at 20-25°C: 0.05	Melting point: -13°C	Relative vapour density (air = 1): 8.4	Relative density (water = 1): 1.09	Flash point: see Notes	Solubility in water, g/100 ml at 20°C: 0.075	Octanol/water partition coefficient as log Pow: 3.6
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ENVIRONMENTAL DATA	 <p>The substance is very toxic to aquatic organisms. This substance does not enter the environment under normal use. Great care, however, should be given to avoid any additional release, e.g. through inappropriate disposal.</p>								
NOTES									
<p>Do NOT take working clothes home. The substance is combustible but no flash point is available in literature. Depending on the degree of exposure, periodic medical examination is suggested. Specific treatment is necessary in case of poisoning with this substance; the appropriate means with instructions must be available. Carrier solvents used in commercial formulations may change physical and toxicological properties. Transport Emergency Card: TEC (R)-G1GT6-I</p>									
ADDITIONAL INFORMATION									
<p>ICSC: 1660 ETHOPROPHOS (C) IPCS, CEC, 1994</p>									
IMPORTANT LEGAL NOTICE:	<p>Neither NIOSH, the CEC or the IPCS nor any person acting on behalf of NIOSH, the CEC or the IPCS is responsible for the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. The only modifications made to produce the U.S. version is inclusion of the OSHA PELs, NIOSH RELs and NIOSH IDLH values.</p>								

Identification

Name Mocap
Synonyms O-Ethyl-S,S-dipropyl phosphorodithioate; Ethoprophos



Molecular Formula $C_8H_{19}O_2PS_2$
Molecular Weight 242.33
CAS Registry Number 13194-48-4
EINECS 236-152-1

Properties

Boiling point 86-91 °C

Safety Data

Hazard Symbols  T+;N [Details](#)
Risk Codes R25;R26/27;R43;R50/53 [Details](#)
Safety Description S27;S28;S36/37/39;S45;S60;S61 [Details](#)
Transport Information UN 2810