

# MONOCROTOPHOS

0181

March 1995

CAS No: 6923-22-4  
 RTECS No: TC4375000  
 UN No: 2783  
 EC No: 015-072-00-9

Dimethyl (E)-1-methyl-2-(methylcarbamoyl) vinyl phosphate  
 Phosphoric acid, dimethyl 1-methyl-3-(methylamino)-3-oxo-1-propenyl  
 ester, (E)-  
 $C_7H_{14}NO_5P$  /  $(CH_3O)_2PO-OC(CH_3)=CHCO-NHCH_3$   
 Molecular mass: 223.2

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Combustible under specific conditions. Liquid formulations containing organic solvents may be flammable. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames.	Powder, alcohol-resistant foam, water spray, carbon dioxide.
<b>EXPLOSION</b>	Risk of fire and explosion if formulations contain flammable/explosive solvents.		
<b>EXPOSURE</b>		<b>PREVENT DISPERSION OF DUST! STRICT HYGIENE! AVOID EXPOSURE OF ADOLESCENTS AND CHILDREN!</b>	<b>IN ALL CASES CONSULT A DOCTOR!</b>
<b>Inhalation</b>	Muscle twitching. Pupillary constriction, muscle cramp, excessive salivation. Dizziness. Laboured breathing. Sweating. Unconsciousness. Symptoms may be delayed (see Notes).	Ventilation (not if powder), local exhaust, or breathing protection.	Fresh air, rest. Half-upright position. Refer for medical attention.
<b>Skin</b>	MAY BE ABSORBED! (Further see Inhalation).	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention. Wear protective gloves when administering first aid.
<b>Eyes</b>	Aerosols will be absorbed (further see Inhalation).	Face shield or eye protection in combination with breathing protection if powder.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>	Headache. Nausea. Vomiting. Abdominal cramps. Diarrhoea. Convulsions. (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. Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Refer for medical attention.

## SPILLAGE DISPOSAL

Do NOT wash away into sewer. Sweep spilled substance into sealable containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. Personal protection: complete protective clothing including self-contained breathing apparatus.

## PACKAGING & LABELLING

T+ Symbol  
 N Symbol  
 R: 24-26/28-68-50/53  
 S: (1/2-)36/37-45-60-61  
 UN Hazard Class: 6.1  
 UN Pack Group: II

Unbreakable packaging; put breakable packaging into closed unbreakable container. Do not transport with food and feedstuffs. Marine pollutant.

## EMERGENCY RESPONSE

Transport Emergency Card: TEC (R)-61GT7-II

## SAFE STORAGE

Provision to contain effluent from fire extinguishing. Separated from food and feedstuffs. Dry. Well closed. Keep in a well-ventilated room.

**IPCS**

International Programme on Chemical Safety



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SEE IMPORTANT INFORMATION ON THE BACK.

### IMPORTANT DATA

**Physical State; Appearance**

COLOURLESS HYGROSCOPIC CRYSTALS.

**Chemical dangers**

The substance decomposes on heating or on burning producing toxic and irritating fumes including nitrogen oxides, phosphorus oxides. Attacks iron, steel, brass.

**Occupational exposure limits**

TLV: (as vapour and aerosol) (Inhalable fraction) 0.05 mg/m<sup>3</sup> as TWA; (skin); A4 (not classifiable as a human carcinogen); BEI issued; (ACGIH 2004).  
MAK not established.

**Routes of exposure**

The substance can be absorbed into the body by inhalation, through the skin and by ingestion.

**Inhalation risk**

Evaporation at 20/C is negligible; a harmful concentration of airborne particles can, however, be reached quickly on spraying or when dispersed, especially if powdered.

**Effects of short-term exposure**

The substance may cause effects on the nervous system, resulting in convulsions, respiratory failure. Cholinesterase inhibitor. Exposure may result in death. The effects may be delayed. Medical observation is indicated.

**Effects of long-term or repeated exposure**

Cholinesterase inhibitor; cumulative effect is possible: see acute hazards/symptoms.

### PHYSICAL PROPERTIES

Boiling point at 0.00007 kPa: 125/C

Melting point: 54-55/C

Relative density (water = 1): 1.3

Solubility in water, g/100 ml at 20/C: 100 (good)

Vapour pressure, Pa at 20/C: 0.0003

### ENVIRONMENTAL DATA

The substance is very toxic to aquatic organisms. This substance may be hazardous to the environment; special attention should be given to honey bees, birds, mammals. The substance may cause long-term effects in the aquatic environment. This substance does enter the environment under normal use. Great care, however, should be given to avoid any additional release, e.g. through inappropriate disposal.

### NOTES

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.

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.

Do NOT take working clothes home.

Azodrin, Bilobran, Crisodrin, Monocron, Nuvacron, Plantdrin, Susvin are trade names.

Card has been partly updated in October 2005. See sections Occupational Exposure Limits, EU classification, Emergency Response.

### ADDITIONAL INFORMATION

**LEGAL NOTICE**

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