

CAS No: 944-22-9  
 RTECS No: TA5950000  
 UN No: 3018  
 EC No: 015-091-00-2

O-Ethyl S-phenylethylphosphonodithioate  
 $C_5H_5SPSCH_2CH_3OCH_2CH_3 / C_{10}H_{15}OPS_2$   
 Molecular mass: 246.3

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Combustible. Liquid formulations containing organic solvents may be flammable. Gives off irritating or toxic fumes (or gases) in a fire.		Foam, powder, carbon dioxide.
<b>EXPLOSION</b>			
<b>EXPOSURE</b>		<b>PREVENT GENERATION OF MISTS! STRICT HYGIENE! AVOID EXPOSURE OF ADOLESCENTS AND CHILDREN!</b>	<b>IN ALL CASES CONSULT A DOCTOR!</b>
<b>Inhalation</b>	Pupillary constriction, muscle cramp, excessive salivation. Sweating. Nausea. Dizziness. Laboured breathing. Convulsions. Unconsciousness.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. 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.
<b>Eyes</b>	Liquid or aerosol may be absorbed. Redness. Pain. 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.
<b>Ingestion</b>	Weakness. Abdominal cramps. Vomiting. Diarrhoea. (Further see Inhalation).	Do not eat, drink, or smoke during work. Wash hands before eating.	Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Rest. Refer for medical attention.

**SPILLAGE DISPOSAL**

Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT wash away into sewer. Personal protection: complete protective clothing including self-contained breathing apparatus.

**PACKAGING & LABELLING**

T+ Symbol  
 N Symbol  
 R: 27/28-50/53  
 S: (1/2-)28-36/37-45-60-61  
 UN Hazard Class: 6.1  
 UN Pack Group: I

Do not transport with food and feedstuffs. Severe marine pollutant.

**EMERGENCY RESPONSE**

Transport Emergency Card: TEC (R)-61GT6-I

**SAFE STORAGE**

Separated from food and feedstuffs. Keep in a well-ventilated room.

### IMPORTANT DATA

**Physical State; Appearance**

CLEAR COLOURLESS LIQUID, WITH CHARACTERISTIC ODOUR.

**Chemical dangers**

Substance is hydrolyzed in contact with strong acids and alkalis.

**Occupational exposure limits**

TLV: 0.1 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, the eyes and by ingestion.

**Inhalation risk**

Evaporation at 20/C is negligible; a harmful concentration of airborne particles can, however, be reached quickly on spraying.

**Effects of short-term exposure**

Cholinesterase inhibitor. Exposure above the OEL 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 0.013 kPa: 130/C  
Melting point: 30/C  
Relative density (water = 1): 1.16  
Solubility in water: none

Vapour pressure, Pa at 25/C: 0.03  
Flash point: 94/C c.c.  
Octanol/water partition coefficient as log Pow: 3.94

### ENVIRONMENTAL DATA

This substance may be hazardous in the environment; special attention should be given to honey bees and aquatic organisms. 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.  
The symptoms of acute intoxication do not become manifest until some hours have passed.  
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.  
Do NOT take working clothes home.  
Difonate, Dyfonate 2G, and Stauffer N 2790 are trade names.  
Card has been partly updated in October 2005. See sections Occupational Exposure Limits, Emergency Response.

### ADDITIONAL INFORMATION

**LEGAL NOTICE**

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information