

MATERIAL SAFETY DATA SHEET

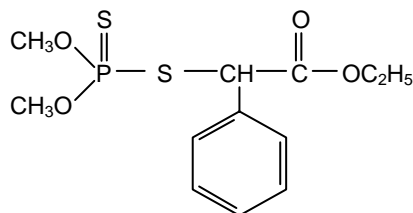
Introductory Details

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Date of preparation : 10 April 2004
Date revised : 11 June 2008

SECTION 1 : CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Details

Product Name : Phenthoate 50% EC
Trade Name : ELSAN 50 EC
Chemical Name : o,o-Dimethyl S-(α -ethoxycarbonylbenzyl)phosphorodithiote
Chemical Formula : $C_{12}H_{17}O_4PS_2$
Molar Mass : 320.36
Chemical Family : Organophosphorous compound
Manufacturer's Code : -
Use : Insecticide
Structural Formula :



Phenthoate

1.2 Company Identification

Manufacturer

Name and Address : Agricultural Chemicals (M) Sdn. Bhd.
962, Lorong Perusahaan 8, Taman Perindustrian Perai,
Telephone Number : 604-390 7988
Emergency Telephone Number : 604-390 7988

1.3 Contact Point

Designation : Ms. Cheong Wai Ching, Product Support Manager /
En. Ahmad Labib bin Yusof, Administrative Assistant
Tel. No. : 604-390 7988

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SECTION 2 : COMPOSITION/INFORMATION ON INGREDIENT

Chemical Name	CAS No.	Proportion	Exposure Limit	Toxicity Data
o,o-Dimethyl S-(α -ethoxycarbonyl-benzyl) phosphorodithiote	2597-03-7	50 %	Refer to Section 9	Refer to Section 11
Surfactant	-	< 10%		
Solvent	-	Balance		

SECTION 3 : PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Yellowish liquid
Odour	: Characteristic odour
Solubility	: Miscible with water
Boiling Point (Technical)	: 186 - 187°C / 5 mmHg
Melting Point (Technical)	: 16 - 17°C
Vapour Pressure (Technical)	: 4×10^{-5} mmHg at 20°C
Percentage Volatiles	: No data available
Evaporation Rate	: No data available
Vapour Density	: No data available
Specific Gravity	: No data available
Flash Point	: 50°C
Autoignition Temperature	: No data available
Flammable Limit	: No data available

SECTION 4 : HAZARD IDENTIFICATION

Flammable
Irritating to skin
Harmful by inhalation, in contact with skin and if swallowed

SECTION 5 : FIRST AID MEASURES

Ingestion	: Induce vomiting after drinking 1 or 2 glasses of water. Do not induce vomiting or give anything by mouth to an unconscious patient. Get prompt medical attention.
Eye Contact	: Immediately flush with plenty of water.
Skin Contact	: Remove contaminated clothing and wash skin thoroughly with soap and water.
Inhalation	: Remove patient to fresh air.
Notes to Physician	:

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Poisoning Symptoms : Perspiration, dizziness, headache, blurred vision, nausea, vomiting, respiratory difficulties, diarrhoea, muscular cramp, salivation.

Medical Treatment : Inject atropine sulphate (2 - 4mg) subcutaneously or intravenously. Repeat every 30 minutes until patient is fully atropinised, then administer pralidoxime (1g) intravenously, if necessary.

SECTION 6 : FIRE FIGHTING MEASURES

Extinguishing Media : CO₂, foam, dry chemical.

Fire Fighting Instruction : Fire fighters should wear full-faced self contained breathing apparatus and protective clothing.

Special Hazards : Release SO_x upon combustion

SECTION 7 : ACCIDENTAL RELEASE MEASURE

Leak and/or Spill :

Wear protective clothing. Eliminate ignition source. Ventilate area. Absorb spills with inert material such as clay, sand, earth, sawdust etc. and collect in a drum. Cover up the contaminated area with household detergent and small amount of water. Brush the slurry and spread inert absorbents on the slurry liquid and collect the absorbed material in a drum. Seal drum and dispose of. Do not contaminate water resources.

SECTION 8 : HANDLING AND STORAGE

Handling : Read the label before use. Keep away from heat, open flame and spark generating equipment. Wear pesticide respiratory masks, protective gloves and clothing while handling.

Storage : Keep in original container, tightly closed, in a cool dry and well-ventilated place, out of reach of children. Keep away from foodstuffs and animal feeds.

SECTION 9 : EXPOSURE CONTROL AND PERSONAL PROTECTION

Exposure Limit : No data available

Engineering Measures : Local exhaust ventilation

Personal Protection :

Respiratory Protection : Pesticide respiratory mask

Eye Protection : Goggles

Skin Protection : Protective gloves and clothing.

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SECTION 10 : STABILITY AND REACTIVITY

Conditions to Avoid : Direct sunlight, heat and extreme temperature
Incompatible : Strong alkali and acid, oxidizers.
Decomposition Products : SO_x on combustion
Hazardous Polymerization : Will not occur.
Stability : Stable under normal conditions.

SECTION 11 : TOXICOLOGICAL INFORMATION

Toxicity Data (Technical) :
Acute Oral LD₅₀ : (Rat) 410 mg/kg
Acute Dermal LD₅₀ : (Rat) > 5,000 mg/kg
Acute Inhalation LC₅₀ (4hrs) : (Rat) 3.17 mg/L
Carcinogenicity : Not carcinogenic (118 week study on rat)
Reproductive Effect : No data available
Effects of Overexposure :
Eye Irritation (CPL) : Not Irritant
Skin Irritation (CPL) : irritant
Chronic Effects (Technical) :
NOEL : (Dog) male 0.29 mg/kg/day (104 week study)
female 0.33 mg/kg/day (104 week study)
Target Organs : No data available
Medical Conditions Generally Aggravated by Exposure : No data available

SECTION 12 : ECOLOGICAL INFORMATION (TECHNICAL)

Mobility & Bioaccumulation : No data available
Biodegradability :
Half Life Time : (Soil) < 1 day
(River water) < 7 days

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Aquatic Toxicity	:		
TLm, 48 hrs	:	Carp	2.5 ppm
TLm, 3 hrs	:	Daphnia	0.008 ppm
Acute Oral LD ₅₀	:	(Quail)	approx. 300 mg/kg
Acute Oral LD ₅₀	:	(Pheasant)	218 mg/kg

SECTION 13 : DISPOSAL INFORMATION

Dispose of according to local regulation.

SECTION 14 : TRANSPORT INFORMATION

Follow the precaution indicated in the storage and handling section. Follow all regulations in your country.

SECTION 15 : REGULATORY INFORMATION

Pesticides Act	:		
Class	:	II (Poisonous)	
CPL Regulation	:		
Class	:	Harmful, Flammable	
Risk Phrases	:	R10	Flammable
		R38	Irritating to skin
		R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
Safety Phrases	:	S2	Keep out of reach of children.
		S13	Keep away from food, drink and animal feeding stuff
		S51	Use only in well ventilated areas
		S37/39	Wear suitable gloves and eyes/face protection

SECTION 16 : OTHER INFORMATION

Reference :

- MSDS - Elsan 50 EC, date : 20-12-1994
Agricultural Chemicals (M) Sdn. Bhd.
- MSDS - Elsan Technical, date : 30 October 2007
Nissan Chemicals

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- c. Guidelines for The Classification of Hazardous Chemicals, DOSH 1997
- d. Guidelines for The Formulation of A Chemical Safety Data Sheet, DOSH 1997
- e. Guidelines for Labelling of Hazardous Chemicals, DOSH 1997

To the best of our knowledge, the information contained herein is accurate. However, we cannot assume any liability whatsoever for the accuracy or completeness of the information contained herein.