

**BRIGHT RESOURCE TECHNOLOGY SDN. BHD.**

(Co. No.: 517165-A)

**No. 11-2, Jalan Meranti SD 13/4,**

**Bandar Sri Damansara,**

**52200 Kuala Lumpur, Malaysia**

Tel.: 603-6272 1678 Fax: 603-6272 9528

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## **SAFETY DATA SHEET**

**TEMEPHOS 50% EC**

CAS Number: 3383-96-8

**Trade Name:** MOSBAIT 50 EC

**Common Name:** Temephos

**Chemical Name:** O,O,O',O'-tetramethyl O,O'-thiodi-p-phenylene bis (phosphorothioate)

### **1. Substance/ Preparation and company identification**

**Chemical Nature:** Insecticide

**Distributor:** **Bright Resource Technology Sdn. Bhd.**

No.11-2, Jalan Meranti SD 13/4,

Bandar Sri Damansara,

52200 Kuala Lumpur.

Tel.: 03-6272 1678 Fak: 03-6272 9528

### **2. COMPOSITION/ INFORMATION ON INGREDIENTS**

S.No	Ingredient	Concentration (%) w/w
i.	<b>Temephos</b>	<b>50.00</b>
ii.	Other ingredients	<b>50.00</b>

### **3. HAZARDS IDENTIFICATION**

#### **Hazard Pictogram**



Priority identifiers: Flammable liquid, harmful, Eco toxic, Keep out of reach of Children

#### **HSNO Classes: Secondary Identifiers**

3.1C Flammable liquid and vapour

6.1D May be harmful if swallowed, inhaled or absorbed through the skin

6.3B May cause mild skin irritation

6.4A May cause eye irritation

- 6.8B May cause reproductive/ development damage from repeated ingestion  
6.9A May cause neurological symptoms from repeated ingestion at high doses  
9.1A Very toxic to aquatic organisms  
9.3A Very toxic to terrestrial vertebrates  
9.4A Very toxic to terrestrial invertebrates

#### 4. FIRST AID MEASURES

**Inhalation:** Move the person to fresh air. If person is not breathing, give artificial respiration and call physician, immediately for further treatment.

**Skin contact:** Take off contaminated clothing. Rinse skin with plenty of water for 15-20 minutes. Call a physician if necessary.

**Eye contact:** Rinse eyes immediately with clean water for at least 15 minutes and obtain urgent medical aid.

**Ingestion:** Wash out mouth with water. Induce vomiting. Give a glass of water. Keep patient at rest. DO NOT attempt to give anything by mouth to a semi-conscious or unconscious and seek urgent medical advice.

**Note to physician:** Atropine is an antidote. In case of severe poisoning give pralidoxime. Antidotes should be administered by qualified medical personnel.

#### 5. FIRE FIGHTING MEASURES

**Flash Point:** 46 °C

**Hazardous combustion products:**

In a fire, irritant and toxic fumes containing oxides of carbon and Sulphur.

**Special Fire Fighting Procedures**

Treat as oil fire. Remove all ignition sources. Use a full-faced self-contained breathing apparatus along with full protective gear. Keep nearby containers and equipment cool with a water stream. Contains the run-off, if possible, for proper disposal.

**Extinguishing Media:** Dry chemical, foam and water spray or fog

**Unusual Fire an Explosion Hazards:** If water is used to fight fire or cool containers, contain runoff by diking to prevent contamination of water supplies.

#### 6. ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED**

Avoid contact with the spilled material or contaminated surfaces. Extinguish or remove all possible sources of ignition. When dealing with spills do not eat, drink or smoke and wear full body impervious clothing and equipment as described in Section 8. Keep people and animals away and upwind. Prevent spilled material from entering drains or watercourses. Contain spill and absorb with earth, sand, clay or other absorbent material. Collect and store in properly labelled, sealed drums for safe disposal. Thoroughly ventilate the area after cleanup. Deal with all spillages immediately.

**CAUTION: KEEP SILLS AND CLEANING RUNOFF OUT OF MUNICIPAL SEWERS AND WATER RESERVOIRS.**

## **7. HANDLING AND STORAGE**

### **Handling**

Keep out of reach of children. Avoid contact with eyes and skin. Do not inhale vapour or spray mist. If product or spray in eyes, wash it out immediately with water. If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, goggles, respirator (if rubber, wash with detergent and warm water) and contaminated clothing.

### **Storage**

Store in the closed, original container in a cool, well ventilated area. Keep away from all ignition sources. Store in a locked room or place away from children, animals, food, feedstuffs, seed and fertilizers.

### **Personal Protective Equipment**

Application and other handlers must wear: long sleeved shirt and long pants, chemical-resistant gloves. Barrier laminate, nitrile rubber and shoes. Follow manufacturer and instruction to cleaning and maintaining PPE.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Engineering Controls**

Control process conditions to avoid contact. Use local exhaust ventilation during manufacture and spark proof equipment. Use in a well ventilated area only.

### **Respiratory Protection**

In case of heavy exposure, wear: NIOSH approved organic vapor respirator in absence of mechanical ventilation.

### **Skin Protection**

Wear Protective clothing: long sleeved shirts and pants, hat, shoes and chemical resistant PVC or nitrile gloves.

### **Eye Protection**

Wear safety goggles with splash proof none perforated side shield or goggles.

### **Other**

Wear PVC or chemical resistant disposable overalls and PVC boots.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance** : Brown liquid and mild odor  
**Specific Gravity** : 1.08  
**Vapour Pressure** :  $8 \times 10^{-3}$  mPa (25 °C)- Temephos Tech.

**Solubility in water** : Emulsifiers in water  
**Explosivity** : Non-explosive  
**Oxidizing** : None  
**Auto Ignition** : None  
**Boiling Point** : 145 -160°C

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under normal temperature and pressures  
**Incompatibility:** Incompatible with strong acids and alkaline  
**Condition to avoid:** Excessive heat and ignition sources  
**Hazardous decomposition Products:** Sulphurous oxides and CO, CO<sub>2</sub> compounds  
**Hazardous polymerization:** Will not occur

## 11. TOXICOLOGICAL INFORMATION

**Acute LD50 Oral Rat** : 3000 mg/kg  
**Acute LD50 Dermal Rabbit** : > 2000 mg/kg  
**Acute LC50 Inhalation** : LC50 (4 h) rat > 4.79 mg/L air- Tech  
**Skin irritation Rabbit** : None irritant (Tech)  
**Eye irritation rabbit** : None irritant (Tech)  
**Sensitization** : Not a skin sensitizer  
**Carcinogenicity** : None  
**Mutagenicity** : None  
**Reproductive Toxicity** : None  
**Toxicity class** : EPA (formulation) III  
**NOAEL (2 y rat)** : 300 mg/kg (Tech)

## 12. ECOLOGICAL INFORMATION (Based on Temephos Technical)

**Acute oral LD50 (Birds):** 1200 mg/kg (mallard duck)  
**Dietary LC50 (ring necked pheasants):** 170 mg/kg  
**Algae EC50:** NA  
**Daphnia toxicity:** EC50 (48h): 0.88 µg/l  
**Bee toxicity:** Contact: Highly toxic by direct contact. LD50 1.5 µ/ bee  
**Acute LC50 (Fish) 96h:** 9.6 mg/l rainbow trout  
**Degradation:** DT50 in soil for temephos 12d: for temephos sulfoxide <30 d. soil absorption Freundlich K 73 (loam sand), 130 (sandy loam), 244 (slit loam), 541 (loam)

## 13. DISPOSAL CONSIDERATION

### Product

Dispose of product by using it in accordance with the label. Do not burn. Waste product should be disposed of to a suitable landfill.

**Container**

Dispose of to a suitable or agricultural recycling scheme. Do not burn. Do not use packaging for any other purpose

**14. TRANSPORT INFORMATION**

UN No	: 3018
Packing Instructions	: III
Marine Pollutant	: YES
Shipping Description	: Organophosphate pesticide, liquid, flammable and toxic

**15. REGULATORY INFORMATION**

Classification	Xn- Harmful; N- Dangerous to the environment
Risk Phrases	R10- Flammable R20/22 – Harmful by inhalation and if swallowed R51/53- Toxic to aquatic organism, may cause long term adverse effects in the aquatic environment
Safety Phrases	S2- keep out of the reach of children S13- Keep away from food, drink and animal feeding stuffs S36/37/39- Wear suitable protective clothing, gloves and eye/ face protection S46- If swallowed, seek medical advice immediately and show this container or label S56- Dispose of this material and its container to hazardous or special waste collection point

**16. OTHER INFORMATION**

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this SDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this SDS to their own SDS.

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