



MATERIAL SAFETY DATA SHEET

PRODUCT : Temephos 50% EC

PRODUCT DESIGNATION : Insecticide

Section 1. Product & Company Identification

Common Name : Temephos 50% EC
Grade : Formulation
Active Ingredient : Temephos
Chemical Name of Active : O,O,O',O'-tetramethyl O,O'-thiodi-p-phenylene
Ingredient (IUPAC) bis(phosphorothioate)
Chemical Family of A. I. : Organophosphate, Insecticide
Molecular Formula of A. I. : $C_{16}H_{20}O_6P_2S_3$
Molecular Mass of A. I. : 466.47 g/mol
Manufacturer & Supplier : Solas Cropotech

Head office: 36, Strand Road, 4th Floor, Room No-01,
Kolkata-700001

Telephone Number: (033) 2231-3306

Section 2. Composition / Information on Ingredients

Name of the components	Concentration % w/w
Temephos a.i	50.00 % w/w
Other ingredients	50.00 % w/w
Total	100.00 % w/w

Section 3. Hazards Identification

Limited evidence of a carcinogenic effect.

Harmful in contact with skin.

Harmful: may cause lung damage if swallowed.

Repeated exposure may cause skin dryness or cracking.

Vapours may cause drowsiness and dizziness.



Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Section 4. First Aid Measures

Emergency and First Aid Procedure –

If in Eyes: Wash with copious amount of water. Avoid exposing affected eyes to bright light.

If on Skin: Remove contaminated clothing and clean the affected skin area. First, soak up any liquid remaining on the skin with readily disposable material wash the affected area with warm water and alkaline soap.

If Inhaled: If inhaled, remove to fresh air and keep at rest. Obtain medical aid if require

If Swallowed: If the material was swallowed and signs of toxicity are severe, induce Vomiting. In the event of collapse, apply artificial respiration.

Section 5. Fire Fighting Measures

Extinguishing media: Dry chemical, carbon dioxide, water spray or standard foam.

Fire-fighting instruction: As for all fires involving chemicals: chemical protection suit, suitable gloves for fire-fighters and boots, and self-contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precaution: Personnel handling this material should be thoroughly trained to handle spills and releases. Wear appropriate gear for the situation.

Method of Cleaning up: Do not touch spilled material. Stop leak if you can do it without risk. For small spills, take up with sand or other absorbent material and place into containers for later disposal. Move containers from spill area. For larger spills, dike far ahead of spill for later disposal. Keep unnecessary people away. Isolate hazard area and deny entry. Ventilate closed space.

Environmental Precautions: Do not flush to drain. If spilled on the ground, the affected area should be scraped and place in an appropriate container for disposal. Prevent material from entering public sewer system or any water way.



Section 7. Handling & Storage

Handling: Keep product in original tightly closed container. Avoid exposure by inhalation. Do not eat, drink or smoke when handling. Wash hands before eating, drinking or smoking.

Storage: Keep in a cool dry place in original packing store under lock and key. Keep out of reach of children. Do not store near foodstuff. Poultry and domestic animals. Do no loads with foodstuff while transportation? Check that containers are sound and labels undamaged before dispatch.

Section 8. Exposure Control, Personal Protection

Personal Protection: Wash hands thoroughly after handling. Do not breathe mist or vapours. Use personal protective equipment as required.

Protective Gloves: Wear chemical resistant nitrile gloves

Eye Protection: Wear safety goggles with imperforated side shield and face shield

Skin Protection: Avoid contact with skin. Wear apron, boots and full protective suit.

Engineering Control: Mechanical ventilation should be used when handling this product in closed spaces.

Section 9. Physical and Chemical Properties

Appearance / state	: liquid
Odour	: Odour: of mercaptans
Colour	: Amber
Density	: . 1.078 g/cm ³ (20 °C)
Flash Point	: > 24.5 °C
Solubility	: Emulsifies in water

Section 10. Stability & Reactivity

Conditions to avoid: 60 °C

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Substances to avoid: strong alkalies, strong oxidizing agents

Hazardous reactions: No hazardous reactions if stored and handled as prescribed/indicated.

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.



Section 11. Toxicological Information

Acute Oral Toxicity- LD ₅₀	rat: >2000 mg/kg b.w.
Acute Dermal Toxicity- LD ₅₀	rat: >2000 mg/kg b.w
Acute Inhalation - LD ₅₀	rat: >5.06 mg/l Air
Eye Irritation	Mild Irritant to eyes
Skin Irritation	Mild irritating
Skin Sensitization	Non-Sensitizer

Section 12. Ecological Information

Toxicity to Fishes	9.6 mg/l
Toxicity to daphnia	EC50 (48 h): 0,011 ppb
Not readily biodegradable	

Section 13. Disposal Consideration

Must be dumped or incinerated in accordance with local regulations.

Contaminated packaging: Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

Section 14. Transport Information

IMDG Classification

Shipping name	: FLAMMABLE LIQUID, N.O.S., (TEMEPHOS)
Class	: 6
Packing group	: III
UN number	: 3017
Marine pollutant	: Yes

Section 15. Regulatory Information

Classification	: Harmful, Toxic
Risk phrases	: R22, R25, R53
Safety phrases	: S2, S13,S36, S56, S62



Section 16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS 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 in receipt of this MSDS 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 produces formulations(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

Safety Division: SOLAS CROPTECH PRIVATE LIMITED, SAFETY DIVISION

Date – 01/06/2026