



H.O. : 101 / 102, Kanchanganga, Factory Lane, Borivli (West), Mumbai - 400 092, INDIA.

Tel. : 91-22-2898 2133 / 44, 2898 7912 / 14, 2898 4439 / Fax : 91-22-2899 3948 Website : www.heranba.com

Marketing Office : 201/202, Dwarkesh, Above Tribhuvandas Bhimji Jhaveri, L. T. Road, Borivli (W), Mumbai - 400 092. INDIA.

Tel. : 91-22-2833 8443 / 44 / Fax : 91-22-2833 8445 / e-mail : heranba@vsnl.com

MATERIAL SAFETY DATA SHEET

TEMEPHOS 50% EC

1. IDENTIFICATION OF THE SUBSTANCE:

Product name: TEMEPHOS 50% EC

Chemical group Organophosphorous

Use: Insecticide.

Formulation Emulsifiable Concentrate (EC)

Supplier: Heranba Industries Limited

Address: 101/102, Kanchanganga, Factory Lane, Borivli (W), Mumbai - 400 092, INDIA.

Telephone: +91-22-898 7912/14, 2133/44, 4439

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2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL IDENTITY	CAS NO.	PROPORTION (%w/w)
Temephos	3383-96-8	50
Other ingredients		Q.S.

3. HAZARDS IDENTIFICATION

Skin: Moderately irritating.

Eyes: Non irritant but direct contact may cause pain, hyperaemia, lacrimation, twitching of the eyelids.

Inhalation: In general first effects of cholinesterase inhibitors inhaled are usually respiratory and may include nasal hyperaemia, watery discharge, cough, chest discomfort, wheezing, bronchial secretions and bronchostriction. If sufficient amounts are absorbed other systemic symptoms may begin immediately or up to 12 hours such as pallor, nausea, vomiting, diarrhoea, abdominal cramps, headache, dizziness, ocular pain, blurred vision, lacrimation, salivation, sweating, confusion. Other neuroeffects may include ataxia, slurred speech, areflexia, fatigue, weakness, tremors, twitching and eventually paralysis of the extremities and possibly of the respiratory muscles.

Ingestion: Nausea, vomiting, anorexia, abdominal cramps and diarrhoea. Symptoms of cholinesterase inhibition can occur as described in inhalation.

Physical/chemical effects: Flammable liquid

Environmental effects: Low toxicity to fish but some species are susceptible.

4. FIRST AID MEASURES

Skin contact: Remove all contaminated clothes and shoes. Wash off immediately with soap and plenty of water (15 - 20 minutes). Get medical attention immediately.

Eyes contact: Rinse immediately with plenty of water and seek medical advice.



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Inhalation: Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

Ingestion: Remove by gastric lavage and catharsis. Maintain blood pressure and airway. Give oxygen if respiration is depressed. Do not perform gastric lavage if victim is unconscious. Get medical attention immediately.

Other information: Atropine is an antidote. In case of severe poisoning give pralidoxime. Antidotes should be administered by qualified medical personnel.

5. FIRE-FIGHTING MEASURES

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

Unsuitable extinguishing: High pressure water jet media

Special exposure hazards: Do not release chemically contaminated water into drains, soil and surface waters.

Special protective: As for all fires involving chemicals: chemical protection suit, suitable gloves equipment for fire-fighters and boots, and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment.

Methods for 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: Prevent contamination of water.

7. HANDLING AND STORAGE

Handling precautions: Do not eat, drink or smoke when handling; wash hands before eating, drinking or smoking.

Storage: Store in locked, well-ventilated storeroom, away from children and unauthorised personnel, and food and animal feed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation: Provide local exhaust or general dilution ventilation.

Exposure control limits: 5 mg/m³

OSHA TWA (respirable fraction); 10 mg/m³ OSHA TWA (total dust)

Respiratory protection: Wear a suitable mask.

Hand protection: Wear rubber or plastic gloves.

Eye protection: Wear splash-proof or dust-resistant safety goggles.

Skin and body protection: Wear overalls and closed footwear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: Liquid.

Colour: Brown



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Odour: Mild odour.

pH: 5.2- 5.3 (1% solution in water)

Flash point: 46°C

Density: 1.08

Water solubility: Emulsifies in water

10. STABILITY AND REACTIVITY

Stability: Stable under normal temperatures and pressures.

Conditions to avoid: No special precautions other than good housekeeping of chemicals.

Material to avoid: Hydrolysed by strong acids and alkalis.

Hazardous decomposition: Thermal decomposition products may include toxic oxides of phosphorus and sulphur.

11. TOXICOLOGICAL INFORMATION

Acute LD50 oral rats: 3100 mg/kg

Acute LD50 dermal rats: 3039 mg/kg

Acute LD50 inhalation rats (4 h) > 11.5 mg/l air

Eye irritation: Non-irritant

Skin irritation: Mild-irritant

Carcinogen status: Not carcinogenic

Mutagenicity: Not mutagenic

Reproductive toxicity: Not teratogenic

12. ECOLOGICAL INFORMATION

LC50 (96 h) rainbow trout: 31.8 mg/l

Bee toxicity: Toxic to bees, LD50 1.55 µg/bee

Aquatic invertebrates: *Daphnia magna* are sensitive to temephos.

Soil: In soil, under field conditions, the half-life is around 12 days.

13. DISPOSAL CONSIDERATIONS

Pesticide disposal: Burn in high temperature incinerator with effluent scrubbing.

Always dispose of in accordance with local regulations.

Container disposal: Contaminated packaging material should be treated as the product.

14. TRANSPORT INFORMATION

Proper shipping name: Organophosphorus pesticide, liquid, toxic, flammable

Imdg code: 6220

UN No.: 3017

Class: 6.1

Packing group: III

15. REGULATORY INFORMATION

Hazard symbol : Xn

The dangerous for the environment symbol (N).



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Risk phrases: R10 – Flammable; R20/22 - Harmful by inhalation and if swallowed; R51/53 - Toxic to aquatic organisms, 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. DISCLAIMER

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.