



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 **CHLORPYRIPHOS 20 % EC**

1. IDENTIFICATION OF THE SUBSTANCE:

Product name: CHLORPYRIPHOS 20% 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.

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2. HAZARDS IDENTIFICATION

Hazardous chemical. Yellow liquid. Mild mercaptan odor. May be fatal if swallowed or absorbed through skin.

3. COMPOSITION/ INFORMATION ON INGREDIENTS:

Ingredients	CAS Number	Concentration (% w/w)
Chlorpyrifos	[2921-88-2]	20.00
Other ingredients		Q.S

4. FIRST AID MEASURES:

If swallowed: Call a physician or Poison Control Center immediately. Contains petroleum distillates. Do not induce vomiting. Get medical attention immediately.

If inhaled: Remove person to fresh air. Apply artificial respiration if symptoms indicate.

If on skin: Wash affected areas with soap and water.

If in eyes: Flush eyes with plenty of water. Get prompt medical attention.

Note to physician: Chlorpyrifos is a cholinesterase inhibitor. If symptoms of cholinesterase

Inhibition are present, atropine sulfate by injection is antidotal. 2-PAM is also antidotal and may be administered, but only in conjunction with atropine. Solvent may present aspiration hazard. Gastric lavage may be indicated if product taken internally.

5. FIRE FIGHTING MEASURES:

Extinguishing Media: CO₂, Foam, Dry Chemical.

Special Fire Fighting Procedures: Fight fire from upwind position. Use self contained breathing apparatus and equipment designed to prevent skin and eye contact. Cool exposed containers with water spray. This product is toxic to birds, fish and other wildlife. Prevent spread of contaminated runoff.

Unusual Fire and Explosion Hazards: Rapid decomposition may occur above 160-200°C. May give off hydrogen chloride, ethyl sulfide, diethyl sulfide and nitrogen oxides. Foam is preferred method of fighting fires to help prevent spread of contaminated runoff.



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6. ACCIDENTAL RELEASE MEASURES:

Wear protective equipment (see Section 8), as required, to prevent contact with product or its vapors. Cover the spilled material with generous amounts of absorbent material, such as clay, diatomaceous earth, sand or sawdust. Sweep the contaminated absorbent onto a shovel and put the sweepings into a salvage drum. Dispose of wastes as below. Place any leaking container into another salvage drum.

7. HANDLING AND STORAGE:

Precautions for handling and storage: Do not contaminate water, food or feed by storage or disposal. Store in a dry place away from temperature extremes. Avoid inhalation of vapors.

Avoid contact with skin. Wear clean protective clothing. Causes substantial but temporary eye injury. Do not get in eyes. Do not use or store near heat or open flame. If product is diluted with water, DO NOT use in conduits, motor housings and electrical switch boxes. Care should be taken to avoid depositing the product onto exposed surfaces or introducing the product into the air. Avoid contamination of food or food processing surfaces. Do not treat pets with this product. See product label for other precautionary statements for safe use.

Other precautions: Periodically inspect stored materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

Respiratory protection: Handle concentrate in a well ventilated area.

Protective Gloves: Chemical resistant.

Eye Protection: Face shield, goggles or safety glasses.

Other protective clothing or equipment: Wear protective clothing when handling concentrate.

Work/Hygienic practices: Handle concentrate in a ventilated area. May be fatal if inhaled or absorbed through skin. Causes substantial but temporary eye damage. Do not get in eyes, on skin or on clothing. Do not breathe fumes. Rapidly absorbed through skin. Wash hands, arms and face thoroughly with soap and water before eating or smoking. Remove contaminated clothing and wash before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Specific Gravity: 0.97

Solubility in Water: Emulsifies.

Appearance and Odor: Pale yellow liquid, mild mercaptan odor

Flash point: > 24.5°C

10. STABILITY AND REACTIVITY:

Stability: Stable.

Conditions to avoid for stability: Undergoes exothermic decomposition at about 130°C, which can lead to higher temperatures and violent decomposition if generated heat is not removed. The solvent in this product will burn.

Incompatibility: Alkalies.

Hazardous Decomposition or Byproducts: Hydrogen chloride, ethyl sulfide, diethyl sulphide and nitrogen oxides.

Hazardous Polymerization: Will not occur.



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11. TOXICOLOGICAL INFORMATION:

Carcinogenicity: Chlorpyrifos did not cause cancer in long term animal studies.

Mutagenicity: Non- mutagenic.

Teratology: Non-teratogenic.

Reproductive Effects: Chlorpyrifos did not interfere with fertility in reproduction studies in laboratory animals. Some evidence of toxicity to the offspring occurred, but only at a dose high enough to produce significant toxicity to the parent animals.

12. ECOLOGICAL INFORMATION:

Movement and Partitioning: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Degradation and Persistence: The photolysis half-life in water is 3-4 weeks. Tropospheric half-life is estimated to be 1.4 hours. Degradation is expected in the soil environment within days to weeks. Under aerobic soil conditions, the half-life is generally 30-60 days.

13. DISPOSAL CONSIDERATIONS:

Waste disposal method: Pesticide wastes are toxic. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide.

Container disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

14. TRANSPORT INFORMATION:

Shipping Name	:	ORGANOPHOSPHOROUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE.
Hazard class	:	6.1
UN Number	:	3017
Packing Group	:	III
IMDG code page	:	6220
Ems No	:	6.1-01
MFAG Table no	:	505

15. DISCLAIMER:

This MSDS summarizes 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.