



MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

ZHEJIANG RAYFULL CHEMICALS CO., LTD.

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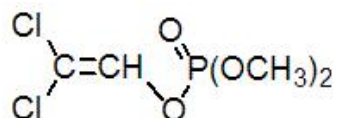
1. Chemical Product Identification

Product Name: Dichlorvos 80% EC

Molecular Formula: C₄H₇Cl₂O₄P

Molecular Weight: 220.98 g/mol

Structural Formula:



Chemical Name: 2,2-dichlorovinyl dimethyl phosphate (IUPAC)

2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Dichlorvos	62-73-7	80.0
Other ingredients		20.0

3. Hazards Identification

Hazard classification according to the criteria of NOHSC. Dangerous goods classification according to the Australia Dangerous Goods Code.

4. First Aid Measures

Eye: Flush eyes with clean water, holding eyelids apart for a minimum of 15-20 minutes.



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Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call poison control centre or doctor for treatment advice. Obtain medical attention immediately if irritation persistence.

Skin: Immediately remove contaminated clothing and wash skin, hair and fingernails thoroughly with soap and water. Flush skin with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not give anything by mouth to an unconscious person.

Inhalation: Move victim to fresh air. If not breathing, call an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control centre or doctor for treatment advice.

5. Fire-Fighting Measures

Suitable: Extinguishing Media Water fog, foam, carbon dioxide or dry chemical.

Special Protective Equipment for fire fighters: Breathable air apparatus must be worn when fighting a fire in which this product is involved.

Specific Hazards: Will emit toxic fumes of hydrogen chloride if involved in fires and dichlorvos vapours will also be evolved.

Hazchem Code: 2X.

Other Information: STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

6. Accidental Release Measures

Spills & Disposal: Keep upwind. Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect spilled material and waste in sealable open-top type containers for disposal.

Personal Protection: For appropriate personal protective equipment (PPE), refer Section 8.

7. Handling And Storage

Handling: Do not apply to humans, their clothing, or bedding. Do not contaminate food or use on household tanks.



Storage: Store at normal temperatures, away from children, domestic animals, food and feed products, seed and fertilizer. Do not contaminate other stored products or the storage area by handling or storage of this product. Keep in a well-ventilated room.

8. Exposure Controls / Personal Protection

Personal protective equipment

Respiratory protection: Approved respirator

Protective gloves: Rubber gloves

Eye protection: Safety goggles or face shield.

Industrial hygiene: adequate ventilation.

9. Physical And Chemical Properties

Appearance: Clear, water-white liquid;

Density: 1.375 g/cm³;

Solubility in water: Forms an emulsion in water.;

Octanol/Water Partition Coefficient: Kow Log P is 1.9 (OECD 117) for dichlorvos;

Vapour Pressure: 2.1 Pa at 25°C for dichlorvos;

Boiling Point: 120°C;

Melting Point: <-18°C.

10. Stability And Reactivity

Conditions to avoid: fire and flame, high temperature;

Products to avoid: incompatible with alkaline materials.

Thermal decomposition: none

Hazardous decomposition products: hydrogen chloride, nitrogen oxides, phosphorous oxides and sulfur oxides.

Hazardous reaction: The substance decomposes on heating producing toxic fumes of hydrogen chloride, nitrogen oxides, phosphorous oxides and sulfur oxides.

11. Toxicological Information

Acute oral LD₅₀ for rats is 80 a.i.mg/kg.

Acute dermal LD₅₀ for rats is 120 a.i.mg/kg.

Acute inhalation toxicity LC₅₀ (4 h) for rats is 0.083 a.i.mg/l.



Skin irritation: Slightly irritating to skin (rabbits).

Eye irritation: Slightly irritating to eyes (rabbits).

Skin sensitization for guinea pig: Skin sensitiser.

12. Ecological And Ecotoxicological Information

Effect on birds: Acute oral LD₅₀ for Bobwhite quail is 24 mg/kg.

Effect on fish: Acute LC₅₀ (96 h) for Rainbow trout is 0.55 mg/l.

Effects on aquatic invertebrates: Acute EC₅₀ (48 h) for Daphnia magna is 0.00019 mg/l.

Effects on algae: Acute EC₅₀ (72 h) for Scenedemus subspicatus is 52.8 mg/l.

Effects on bees: Oral acute (48 h) LD₅₀ is 0.29 µg/bee.

Effects on earthworms: Acute 14 day LC₅₀ is 14 mg/kg. hlorvos is toxic to bees.

13. Disposal Considerations

Product Disposal: On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals.

Container Disposal: Do not use this container for any other purpose. Triple rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMuster symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

14. Transport Information

U.N. Number: 3018

DG Class: 6.1

Hazchem Code: 2X



Packaging Method: 3.8.6.1

Packing Group: II

Storage and Transport: Considered dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

EPG Number: 6A1

IERG Number: 35

UN Number (Sea Transport): 3018

IMO Class/Packing Group: Class 6.1; Packing Group II

IMO Proper Shipping Name: ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (contains Dichlorvos)

15. Regulatory Information

Poisons Schedule: S7

National and or International Regulatory Information: There is a legislative requirement in most States in Australia for workers to be medically monitored when using organophosphates, by: - 'estimation of red cell and plasma cholinesterase activity towards the end of the day on which organophosphates have been used'. Ref: Control of Workplace Hazardous Substances, NOHSC: 1005.

Packaging & Labelling: DANGEROUS POISON KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Hazard Category: Very Toxic,Irritant

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 on 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 produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.