



Hangzhou Tianlong Biotechnology Co., Ltd.

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MATERIAL SAFETY DATA SHEET

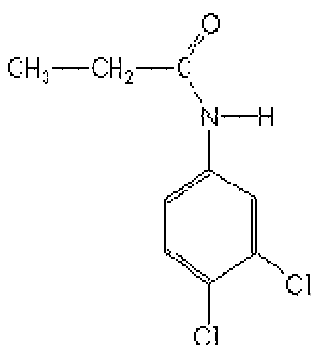
1. Chemical Product and Company Identification

Product Name: Propanil

Molecular Formula: C₉H₉Cl₂NO

Molecular Weight: 218.08

Structural Formula:



Chemical Name: 3,4-DICHLOROPROPIONANILIDE

CAS No.: 709-98-8

Supplier: HANZHOU TIANLONG BIOTECHNOLOGY CO., LTD

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2. Composition / Information on Ingredients

Composition	CAS No.	Content %
Propanil	709-98-8	97.0
Other ingredients		3.0

3. Hazards Identification

Harmful if swallowed. Dangerous for the environment.

4. First Aid Measures

Skin Contact: Wash material off the skin in flowing water or shower with soap. If irritation persists, consult a physician immediately.

Eye Contact: Immediately flush with copious amount of water for at least 15 minutes. If irritation persists, consult a physician.

Inhalation: Remove the victim to fresh air and keep him warm and quiet. Get

a medical attention immediately. If not breathing, clear the airway and give artificial respiration. If breathing is difficult, give oxygen.

Ingestion: Induce vomiting by giving one or two glasses of water. Get a medical attention immediately. If the victim is unconscious or having convulsions, never give fluids or induce vomiting.

5. Fire-Fighting Measures

Extinguishing Media: Dry chemical powder, foam, carbon dioxide or dry sand.

Special Fire Fighting Procedure:

For small fire, use dry chemical powder, carbon dioxide or dry sand.

For big fires, foam extinguisher is effective to shut off air. Water may enlarge fire.

For a fire in surrounding area, apply water to cool and protect surrounding equipments. Remove containers, if feasible, from the fire area to safe place immediately. Fire fighters should wear protective gears including a positive pressure self-contained breathing apparatus. Evacuate non essential personnel.

6. Accidental Release Measures

For small spills, dike with inert material (e.g. dry sand or earth), then place in a waste chemical container for disposal. Flush residual spill (area) with a plenty of water. For large spills, dike with sand to lead spill to safe place and then cover with foam. Place in a waste chemical container as much as possible. Flush spill (area) with a plenty of water. Prevents spills from entering sewers, watercourses or low areas.

7. Handling And Storage

Handling Precaution: Keep out of reach of children

Storage Precaution:

All the electrical appliances used in a storage should be installed directly to the ground. The appliances must be explosion-proof. Keep containers tightly closed and store in a cool, dark and dry place. Keep away from heat, steam pipe or combustible materials.

8. Exposure Controls/Personal Protection

Engineering Controls:

The use of local exhaust ventilations is recommended. Containers should be kept tightly closed. Emergency shower and eye wash in the work area is recommended to be installed.

Personal Protective Equipment: Wear chemical cartridge respirator with an organic vapour cartridge, airline respirator, positive pressure self-contained breathing apparatus, safety goggles, gloves and boots as appropriate.

9. Physical and Chemical Properties

Appearance: White powder

Specific gravity: 1.41 g/cm³ @ 22 °C

Water Solubility: 225 mg/L @ 25 °C

Solubility in Other Solvents: v.s in benzene, ethanol, acetone, and cyclohexanone; s. in toluene and xylene

Melting Point: 81-91 °C (technical)

Vapor Pressure: 0.05 mPa @ 20 °C

Partition Coefficient: 2.2856

Adsorption Coefficient: 149

10. Stability and Reactivity

Stability and Reactivity: Stable under normal conditions

Hazardous Polymerization: No data available

Incompatibility: Strong acid and alkali

Hazardous decomposition products: May produce CO and CO₂

Storage Stability: Stable for 3 years if stored in a cool, dark and dry place.

11. Toxicological Information

Acute Toxicity:

Oral: LD₅₀ (Rat) 2,756 mg/kg (male) 2,343 mg/kg (female)

(Mouse) 2,375 mg/kg (female) 1,652 mg/kg (female)

Dermal: LD₅₀ (Rat) >4,000 mg/kg (male & female)

Eye irritation: Moderate irritant (0.1 g/eye)

Skin irritation: Not irritant

12. Ecological Information

Effects on birds: moderately toxic to birds. The oral LD₅₀ for propanil in bobwhite quail is 196 mg/kg, and in mallard ducks is 275 mg/kg. The 8-day dietary LC₅₀ for propanil in bobwhite quail is 2861 ppm, and in mallard ducks is 5627 ppm.

Effects on aquatic organisms: may be moderately to highly toxic to a wide range of aquatic species. The 96-hour LC₅₀ for propanil is 5.4 mg/L in bluegill sunfish, 2.3 mg/L in rainbow trout, and 4.6 mg/L in sheepshead minnows. The 48-hour LC₅₀ for propanil in *Daphnia magna*, a small freshwater crustacean, is 0.14 mg/L, and for mysid shrimp is 0.4 mg/L. The 96-hour LC₅₀ of propanil is 5.8 mg/L in the Eastern oyster. The compound concentrated to levels up to 111 times the background water concentration in fathead minnows. The level of pesticide in the minnows returned to normal within 10 days after the fish were placed in a propanil-free environment. This indicates that the compound is not likely to concentrate appreciably in aquatic organisms.

Effects on other organisms: nontoxic to honeybees, with a reported contact LC₅₀ of 240 ug/bee.

13. Disposal Considerations

Waste should be disposed of in a chemical incinerator following the methods mentioned below as appropriate. Burn by spraying into the burner of incinerator equipped with afterburner and scrubber as toxic gases (hydrochloric gas, etc.) emit while burning. For disposal of small amount, adsorb with diatom earth and then burn in chemical incinerator equipped with afterburner and scrubber. Do not dump into sewers or into any body of water. The water containing the product should be drained after being cleaned up by activated sludge.

14. Transport Information

Class: 9

UN NO.: 3077

Packing group: III

15. Regulatory Information

Harmful if swallowed.

Very toxic to aquatic organisms.

Keep out of the reach of children.

Do not breathe dust.

Avoid release to the environment.

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.