



**Hangzhou Tianlong Biotechnology Co., Ltd.**

Add: Room 1906, Fengqi Times Tower, No.338, Fengqi East Road, Hangzhou, Zhejiang, China.

## MATERIAL SAFETY DATA SHEET

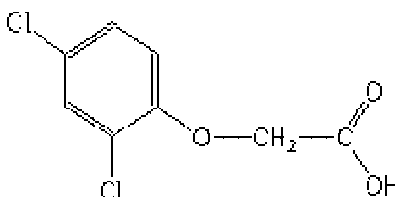
### 1. Chemical Product and company Identification

Product Name: 2,4-D ACID

Molecular Formula:  $C_8H_6Cl_2O_3$

Molecular Weight: 221.04

Structural Formula:



Chemical Name: Dimethylamine salt of 2,4-dichlorophenoxy acetic acid

CAS No.: 94-75-7

Supplier: HANZHOU TIANLONG BIOTECHNOLOGY CO., LTD

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### 2. Composition / Information on Ingredients

Composition	CAS No.	Content %
2,4-D ACID	94-75-7	98.0
Other ingredients		2.0

### 3. Hazards Identification

Harmful if swallowed. Irritating to respiratory system. Risk of serious damage to eyes. May cause sensitization by skin contact. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 4. First Aid Measures

If inhaled, remove to fresh air. If breathing is difficult, give oxygen.

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with

fingers. Call a physician.

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

#### **5. Fire-Fighting Measures**

Extinguish Media: carbon dioxide, dry chemical powder, or appropriate foam.

Specific Hazards: emits toxic fumes under fire conditions.

Explosion Hazards: container explosion may occur under fire conditions.

Special protective equipment for firefighters: wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Method for cleaning up: sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete

#### **6. Accidental Release Measures**

Steps to be taken if spilled: use safety equipment and procedures appropriate to the size of the spill. Keep unnecessary people away. Avoid runoff to natural waters and sewers. Surround and absorb spills with inert material such as perlite, sawdust, clay granules, vermiculite, sand or dirt. Contain all affected material in a closed, labeled container for proper disposal. Isolate from other waste materials. Clean contaminated area such as hard surfaces with detergent and water, collecting cleaning solution for proper disposal. Large spills to soil or similar surfaces may necessitate removal of top soil.

#### **7. Handling And Storage**

Handling: Directions for safe handling, do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Storage: Keep tightly closed. Store in a cool dry place. Store in the dark.

#### **8. Exposure Controls/Personal Protection**

Personal Protective Equipment (PPE): Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, shoes plus socks, and protective eyewear. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be reused until it has been cleaned.

Skin Protection: Coveralls over short sleeve shirt and short pants. Water proof gloves. Chemically resistant footwear plus socks. Protective eye wear. Chemical resistant headgear for overhead exposure. Chemical resistant

apron for loading and sprayer maintenance.

Eye Protection: Use chemical goggles. Eye wash fountain should be available in work area.

Engineering control: safety shower and eye bath. Mechanical exhaust required.

General hygiene measures: wash thoroughly after handling.

Personal protective equipment: government approved respirator, compatible chemical-resistant gloves and chemical safety goggles.

Special requirements: light sensitive

## **9. Physical and Chemical Properties**

Appearance: white to light yellow powder

Density: 1.565@30°C

Melting point: 140.5°C

Boiling point: 160°C

Vapor Pressure: 0.011mPa @20°C

Solubility: 620mg/l in water, soluble in alkali solution and aether, insoluble in petroleum and sodium salt

## **10. Stability and Reactivity**

Stable, but moisture-sensitive and may be light-sensitive.

Incompatible with strong oxidizing agents, corrodes many metals.

Decomposes in water.

## **11. Toxicological Information**

Toxic if swallowed or inhaled. Experimental carcinogen and teratogen. May be harmful by skin contact. May cause eye, skin and respiratory irritant.

The acute oral LD50 is 375mg/kg, the acceptable daily intake is 0-0.3 mg/kg.

## **12. Ecological Information**

Acute toxic effects may include the death of animals, birds, or fish, and death or low growth rate in plants. Acute effects are seen two to four days after animals or plants come in contact with a toxic chemical substance.

2,4-D has moderate acute toxicity to aquatic life. As a broadleaf herbicide, 2,4-D can damage and kill a wide variety of plants. Insufficient data are available to evaluate or predict the short-term effects of 2,4-D to birds or land animals.

## **13. Disposal Considerations**

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point.

If not recycling, break, crush or puncture and bury empty containers in a 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**

Class: 9

UN No.: 3077

Packing group: III

#### **15. Regulatory Information**

Safe phrase: Keep locked up and out of reach children.

Keep away from food, drink and animal feeding stuffs.

Do not breathe vapour/spray.

Avoid contact with skin and eyes.

Wear suitable protective clothing, gloves and eye/face protection.

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.