Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name : Prometryn 50% SC

Product Class : Herbicide

Chemical Name : *N*,*N*-diisopropyl-6-methylthio-1,3,5-triazine-2,4-diamine

Chemical Formulation : $C_{10}H_{19}N_5O$

Formulation : Suspension Concentrate (SC)

Supplier: Shenzhen Yufull Industries Co., Ltd

Add: Room 1311, Bldg A, Liu Jin Square, No3038, Bao'an North Road, Sungang Street, Luohu District, Shenzhen, China.

Tel: 0086-755-25840455 **Fax**: 0086-755-25867996 **Website:** http://www.yufull.com

2. HAZARDS IDENTIFICATION

Inhalation:

Short Term Exposure: Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

Skin Contact:

Short Term Exposure: Available data indicates that this product is not harmful. It should present no hazards in normal use. In addition product is unlikely to cause any discomfort in normal use.

Eye Contact:

Short Term Exposure: This product may be mildly irritating to eyes, but is unlikely to cause anything more than mild discomfort which should disappear once product is removed.

Ingestion:

Short Term Exposure: Significant oral exposure is considered to be unlikely. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.

Carcinogen Status:

SWA: No significant ingredient is classified as carcinogenic by SWA.

NTP: No significant ingredient is classified as carcinogenic by NTP.

IARC: No significant ingredient is classified as carcinogenic by IARC.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Formulation Composition	CAS-number	Content (%)
Prometryn	7287-19-6	50%
Tristyrylphenol ethoxylates	99734-09-5	4%
Water	7732-18-5	46%

4. FIRST AID MEASURES

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. Have this MSDS with you when you call.

Inhalation: First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Skin Contact: Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

Eye Contact: No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.

Ingestion: If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media: foam, dry powder, carbon dioxide, water spray

Hazards from combustion products

Extinguishing media

Suitable Extinguishing media: foam, dry powder, carbon dioxide, water spray

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

evolve toxic and irritant vapors substances/groups of substances mentioned can be released in case of fire.

If product is heated above decomposition temperature, toxic vapours will be released.

Advice for fire-fighters

Protective equipment for fire-fighting

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid contact with spilled product or contaminated surfaces. Remove all sources of ignition. When dealing with a spillage do not eat, drink or smoke. Keep unauthorized people away. Use personal protective equipment.

Environmental precautions

Do not allow to get into surface water, drains and ground water. Retain and dispose of contaminated wash water. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up

Avoid dust formation and electrical charging (sparking) because dust explosion might occur. Collect and transfer the product into a properly labelled and tightly closed container.

7. HANDLING AND STORAGE

Handling

Hygiene measures

After each day's use, wash gloves, face shield or goggles and contaminated clothing. Avoid contact with skin, eyes and clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

Keep working clothes separately. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

Advice on protection against fire and explosion

Keep away from heat and sources of ignition. Dust may form explosive mixture in air.

Storage

Requirements for storage areas and containers

Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight.

Advice on common storage

Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Further information on storage conditions: Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment

Respiratory protection

If product is handled while not enclosed, and if skin contact may occur: Dust mask

Hand protection

PVC or other plastic material gloves

Eye protection

Safety glasses with side-shields

Skin and body protection

Wear standard coverall and type 3 suits. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

Hygiene measures

Avoid contact with skin, eyes and clothing.

Keep working clothes separately.

Wash hands immediately after work, if necessary take a shower

Remove soiled or soaked clothing immediately and clean thoroughly before using again.

Garments that cannot be cleaned must be destroyed (burnt).

Protective measures

If product is handled while not enclosed, and if skin contact may occur: complete suit protecting against chemicals

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Milk white flow liquid, without deposition and delamination

Odor: odorless

Flammability: Non-flammable

Vapour pressure: not applicable

pH: 6.0-9.0

Solubility in Water: Forms suspensions in water.

10. STABILITY AND REACTIVITY

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: strong acids, strong bases, strong oxidising agents.

Fire Decomposition: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. Oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: This product will not undergo polymerisation reactions.

11. TOXICOLOGICAL INFORMATION

Acute:

Inhalation: LC50 (4 h) for rats > 6.06mg/L

Eye irritation: Slight eye irritating

Skin irritation: Non-irritating and not a skin sensitizer.

Skin absorption: Acute dermal LD50 >2000mg/kg (rats)

Ingestion: Oral LD50 >2000 mg/kg(rats)

Chronic toxicity/Carcinogenicity:

Animal studies did not detect carcinogenic activity. No human information available.

Genetic effects/Mutagenicity:

Animal studies did not detect any teratogenic effects. No human information available. In a number of assays, Prometryn 50% SC was not mutagenic. No evidence that Prometryn 50% SC is a mutagenic or genotoxic.

Reproductive effects:

Animal testing showed no reproductive toxicity. No toxicity to reproduction.

12. ECOLOGICAL INFORMATION

Effects on birds: Prometryn is practically nontoxic to birds; the acute oral LD50 values in bobwhite quail and mallard ducks are greater than 2150 mg/kg and greater than 4640 mg/kg, respectively.

Effects on aquatic organisms: Prometryn ranges from moderately toxic to highly toxic to fish. It is harmful to freshwater invertebrates. The observed concentration of prometryn in bluegill and in rainbow trout is 9 to 10 times the ambient water concentration, indicating a low potential for bioaccumulation.

Effects on other organisms: Prometryn is nontoxic to bees and earthworms, with a reported contact LD50 of greater than 99 g/bee, and a 48h LC_{50} of 153 mg/kg in earthworms.

Breakdown in soil and groundwater: Prometryn is moderately persistent in the soil, with a field half-life of 1 to 3 months. It will persist longer under dry or cold conditions, which are not conducive to chemical or biological activity.

Breakdown in water: No significant hydrolysis, or breakdown in water, was found when prometryn was tested over a period of 28 days in water ranging from slightly acidic to slightly alkaline and over a variety of test temperatures.

These data indicate that prometryn is potentially persistent in the water environment.

Breakdown in vegetation: Prometryn is rapidly absorbed through both the foliage and roots of plants, and is translocated to the growing shoots. Removal or degradation by the plant is rapid in non-susceptible plants, but very slow in susceptible species

13. DISPOSAL CONSIDERATION

Disposal must be at an approved waste facility for chemical wastes. Burn in a chemical incinerator equipped with an afterburner and scrubber.

The empty container must be triple rinsed prior to disposal. Consult the label for the actual method to be followed.

14. TRANSPORT INFORMATION

Hazard class: 9

Packing group: III

ID number: UN 3082

Marine pollutant: YES

15. REGULATORY INFORMATION

Symbol : Xn : Harmful

Special Risks : R22 : Harmful if swallowed.

(R-Phrases)

R51/5 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety Advice

(S- Phrases) : S 2 : Keep out of the reach of children

S24/25 : Avoid contact with skin and eyes..

S36/37 : Wear suitable protective clothing and gloves

S57 : Use appropriate containment to avoid environmental contamination.

S60 : This material and its container must be disposed of as hazardous waste.

S61 : Avoid release to the environment. Refer to special instructions/safety data sheets.

International WHO

Toxicity : IV : Non-toxic Classification

16. OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.