

## MATERIAL SAFETY DATA SHEET

### Isoprothiolane 40% EC

#### 1. Product Identification

**Product name:** Isoprothiolane 40% EC

**Chemical name of active ingredient(s):**

Isoprothiolane: Diisopropyl 1,3-dithiolan-2-ylidenemalonate

**Manufacturer:** Shanghai Tenglong Agrochem Co., Ltd.

**Address:** Yangpu building 24B, No.2005, Huangxing Road, Yangpu  
Shanghai 200002, China

**Telephone:** +86 21 5506 3225

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#### 2. Composition/Information on Ingredients

Composition	CAS No.	Content (w/v)
Isoprothiolane	50512-35-1	400g/L
Sodium Dodecyl Sulfate	151-21-3	100g/L
Oleic acid	112-80-1	30g/L
Toluene	108-88-3	Balance

#### 3. Hazards Identification

Harmful by inhalation, in contact with skin and if swallowed.

Irritating to eyes, respiratory system and skin.

Flammable.

Toxic to aquatic organisms.

#### 4. First Aid Measures

**Ingestion:** If swallowed, give large quantity of water and induce vomiting. Carefully not to draw into lungs. Get prompt medical attention.

**Eye contact:** Flush with plenty of water for at least 15 minutes. If irritation persists, get medical attention.

**Skin contact:** Wash with plenty of water and soap. If irritation persists, get medical attention.

Sensitized person should avoid further contact and reuse of contaminated clothing.

**Inhalation:** Remove patient to fresh air.

#### **Signs and Symptoms of Exposure:**

**Skin contact:** Skin contact may cause skin irritation and allergic reaction. Repeated contact may cause allergic reaction in susceptible individuals.

**Eye contact:** Contact with this product may cause slight eye irritation. But, temporary injury.

**Ingestion:** Ingestion of large amount of this product may cause hypoactivity.

#### 5. Fire Fighting Measures

Extinguishing Media: Water spray (mist), foam, CO<sub>2</sub>, dry chemical.

Fire fighting instruction: Fire fighters should wear full-faced self contained breathing apparatus and protective clothing.

Special hazards: No data available

## **6. Accidental Release Measures**

Leak and/or Spill:

Wear protective clothing. Eliminate ignition source. Ventilate area. Absorb spills with inert material such as clay, sand, earth, sawdust etc. and collect in a drum. Cover up the contaminated area with household detergent and small amount of water. Brush the slurry and spread inert absorbents on the slurry liquid and collect the absorbed material in a drum. Seal drum and dispose of. Do not contaminate water resources.

## **7. Handling and Storage**

Handling:

Protective clothing should be changed at least daily. Persons exposed routinely to the active material should shower prior to leaving work each day. Avoid handling near open flame, source of heat or source of ignition.

Storage:

Keep in original container, tightly closed, out of reach of children. Keep away from food, drinks and animal feeding stuffs. Avoid direct sunlight and do not store near heat and flame. Read the label before use. Do not contaminate water. Open dumping is prohibited.

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

Exposure Limit (Technical):

Association of Industrial Health: 5 mg/m<sup>3</sup>

Exposure limit: 2 mg/m<sup>3</sup>

Engineering measures: Local exhaust ventilation

Personal protection: Wear pesticide respiratory masks, protective gloves and chemical safety goggles.

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

Appearance: Orange transparent liquid

Odour: Characteristic odour

Solubility: Miscible with water

Boiling Point: No data available

Melting Point (technical): 50 - 51°C

Vapour Pressure (technical):  $1.41 \times 10^{-4}$  mmHg at 25°C

Percentage Volatiles: No data available

Evaporation Rate: No data available

Vapour Density: No data available

Specific Gravity: 1.00

Flash Point: 40°C

Autoignition temperature: No data available

Shanghai Tenglong Agrochem Co., Ltd [www.tlongagro.com](http://www.tlongagro.com)

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Flammable Limit (%): No data available  
Partition coefficient (technical): Kow logP = 3.3

## **10. Stability and Reactivity**

Conditions to avoid: Direct sunlight, heat and extreme temperature.  
Incompatible: No data available.  
Decomposition Products: No data available.  
Hazardous polymerization: No data available.  
Stability: Stable for at least 3 years under normal warehouse conditions.

## **11. Toxicological Information**

Toxicity Data:  
Acute Oral LD<sub>50</sub>: (Rat) male 2330 mg/kg; female 2710 mg/kg  
Acute Dermal LD<sub>50</sub>: (Rat) male > 2000 mg/kg; female > 2000 mg/kg  
Inhalation LC<sub>50</sub> (4h): (Rat) male > 2.0 mg/L  
Carcinogenicity: No data available  
Reproductive Effect: No birth defects were noted in rats and rabbits given isoprothiolane orally during pregnancy. No effects were seen on the ability of male and female rats to reproduce when fed isoprothiolane for 2 successive generations.  
Effects of overexposure: Eye Irritation: Slight irritating  
Skin Irritating: Slight irritating  
Sensitivity: Negative  
Chronic effects: Rats fed isoprothiolane for 2 years showed only body weight depression. In dog 1 year study, dogs fed isoprothiolane (50 mg/kg/day) showed slight body weight depression and increase of alkaline phosphatase activity in plasma (male).  
Target organs: Any clinical parameters showing organ toxicity were not observed.  
Genetic effects: Isoprothiolane did not produce genetic changes in Rec-assay and Ames test.  
Pharmacological effects: Isoprothiolane did not show any specific pharmacological effects.  
Medical Conditions Generally Aggravated by Exposure: No data available

## **12. Ecological Information**

Mobility & Bioaccumulation: No data available  
Biodegradability: No data available  
Fish Toxicity LC<sub>50</sub> (48 hr): (Carp) 6.7 mg/l  
LC<sub>50</sub> (3 hr): (Daphnia) 40 mg/l

## **13. DISPOSAL CONSIDERATIONS**

Dispose of according to local regulation.

## **14. TRANSPORT INFORMATION**

Follow the precaution indicated in the storage and handling section. Follow all regulations in your country.

## **15. REGULATORY INFORMATION**

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Tel: (86)21-55063225 Fax: (86)21-55063699  
Add: Yangpu building 24B, No.2005, Huangxing Road, Yangpu Shanghai

Pesticides Act: Class III - Harmful

CPL Regulations: Class - Harmful

**Risk Phrases:**

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R36/37/38 Irritating to eyes, respiratory system and skin.

R10 Flammable.

R51 Toxic to aquatic organisms.

**Safety Phrases:**

S2 Keep out of reach of children.

S13 Keep away from food, drink and animal feeding stuff.

S24/25 Avoid contact with skin and eyes.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

<b>16. Other Information</b>
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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. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.