

**Dynamic Chemical Binhai Industry Co.,Ltd.****MSDS**

2, 2, 4-Trimethyl-1, 3-pentanediol diisobutyrate

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**1. Product Identification and Manufacture Information.**

Trade Names/Synonyms: 2,2,4-Trimethyl-1,3-pentanediol diisobutyrate

Chemical Formula: C<sub>16</sub>H<sub>30</sub>O<sub>4</sub>

CAS No. :6846-50-0

Manufacturer: Dynamic Chemical Binhai Industry Co.,Ltd.

Add.: zhongshan 4 road, coastal chemical park, Binhai economic development zone, Jiangsu Chian

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**Emergency Telephone:**

Shanghai Chemical Accident Counseling Service: 86-21-62533429

China National Chemical Accident Counseling Service: 86-532-3889090

**2. Hazards Identification**

Hazardous Classification: None

**GHS Hazard Class**

No data available

**GHS Label Element**

Hazard type pictogram:

Hazard description: flammable liquids

**3. Composition/Information on Ingredients**

Main content : 2,2,4-trimethyl-1,3-pentanediol diisobutyrate

Main usage : It is a non-toxic plasticizer free off benzene ring, and it is applicable for toys, medical and food packaging materials, plastic products. It is a multi-purpose plasticizer, and compatible with all the common first and secondary plasticizer, especially when used in conjunction with the DOP.

**4. First Aid Measures**

Skin contact: take off polluted clothes, immediately flush it with water completely. Get medical attention immediately.

Eye contact: lift the eyelid and flush it with water or physiological saline. Call a physician.

Inhalation: Immediately remove to fresh air. keep respiratory tract unobstructed. If breathing is difficult, give oxygen, if not breathing, give artificial respiration. Call a physician.

Ingestion: Drink enough water. Call a physician.

## 5. Fire Fighting Measures

Flammability and Explosion: flammability will be caused by fire and high temperature.

Harmful Burn Decomposition Products: carbon monoxide, carbon dioxide.

Extinguishing measures: Remove the containers from the fired place to open and safe place; Spray water to cool the containers until the fire fighting is over. Withdraw immediately in case of rising sound from venting safety device or any discoloration of containers due to fire.

Fire extinguishing media: Vapor, foam, dry chemical, or carbon dioxide, sand.

## 6. Accidental Release Measure:

### Personal precautions, protective equipment and emergency procedures:

Wear appropriate personal protective equipment.

**Environmental precautions:** Cut off the source of leakage and prevent the leaked material enter sewer or drain as well as some other limited space.

### Methods and material for containment and cleaning up:

Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Large Spillages: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams.

## 7. Handling and Storage

**Handling Notes:** operate in hermetic and well-ventilated location. Operator must be trained strictly and abide by the regulation of operation. Advice operators to wear filter respirator (a half-face organic vapor respirator), chemical proff gloves. Away from any area where the fire or high temperature and No Smoking in the place. The ventilating device should meet the requirements of explosion proof; prevent the vapor from leaking into the air of the work place. Avoid contacting with oxidizer and acid product. Loading and unloading should be carefully, no damage to package and container. Relative enough fire fighting device and emergency leakage disposal equipment should be equipped. Note maybe there is some harmful leftover in the emptied container.

**Storage note:** store in the cool and well-ventilated place. Keep far away from the source of ignition and heat. Separate it from dioxide, acid. Avoid mixing storage. Equipped with appropriate variety and quantity fire-fighting equipment. Equipped with emergency leakage disposal equipment and appropriate collective material.

## 8. Exposure Controls / Personal Protection

Contact limit in work place.

China MAC ( $\text{mg}/\text{m}^3$ ): no regulation

American: ACGIH no regulation

Engineering Control: The manufacturing process should be wind tight, general exhaust ventilation is necessary.

Breathing System Protection: staff must wear filter respirator (a half-face) when the density of air exceeds the standard. Rescue or withdraw from the emergency, must wear air respirator

Eye protection: use chemical safety goggles when necessary

Body protection: wear common protective clothing

Hand protection: wear chemical proof gloves.

Others: No smoking in the work area. Avoid contacting it repeatedly for a long time. Have regular physical examination.

## 9. Physical and Chemical Properties

Appearance and odor: colorless liquid. A little bitter butyl odor

Melting Point:  $-70^{\circ}\text{C}$

Relative Density (water=1): 0.9435 ( $20^{\circ}\text{C}$ )

Vapor density: 9.9 (air=1)

Saturated Vapor Press:  $< 1.5\text{Pa}$  ( $25^{\circ}\text{C}$ )

Refractive index: 1.4300 ( $25^{\circ}\text{C}$ )

Boiling point:  $281.5^{\circ}\text{C}$

Inflammation Heat: no data

Critical temperature ( $^{\circ}\text{C}$ ): No data

Critical pressure (Mpa): no data

Octanol/water distribution coefficient: 4.04—4.91 ( $\log \text{Pow}$ )

Flash Point:  $136^{\circ}\text{C}$  (Close Cup)

Ignition point:  $152^{\circ}\text{C}$

Ignition temperature:  $424^{\circ}\text{C}$

Explosion level limit: 0.48% ( $172^{\circ}\text{C}$ )

Max explosion pressure(Mpa): No data

Solubility: 0.00344–0.0115g/L ( $25^{\circ}\text{C}$ )

## 10. Stability and Reactivity

Stability: stable

Hazardous Polymerization: will not occur

Incompatibilities: strong oxidizing agent, acid

Heat Decomposition Products: peroxide.

## 11. Toxicological Information

Oral

2,2,4-Trimethyl-1,3-pentanediol diisobutyrate: LD-50: (big rat) $>3.2\text{ g/kg}$

LD-50: (rat) $>6.4\text{ g/kg}$

Skin

2,2,4-Trimethyl-1,3-pentanediol diisobutyrate: LD-50: (cavy)  $>18.9\text{ g/kg}$

Inhalation

2,2,4-Trimethyl-1,3-pentanediol diisobutyrate: LD-50 (big rat, 6h) >5.3 mg/kg

## 12. Ecological Information

### Acute toxicity

Fish, 2,2,4-Trimethyl-1,3-pentanediol diisobutyrate: (fish, 96 h):  $\geq 6$  mg/kg

Aquatic invertebrates, 2,2,4-Trimethyl-1,3-pentanediol diisobutyrate: (48 h):  $\geq 1.46$  mg/kg

**Chronic Toxicity** no data

Toxic to aquatic plants, 2,2,4-Trimethyl-1,3-pentanediol diisobutyrate:

EC-50 (seaweed, 72 h)  $> 7.49$  mg/kg

### Biodegradation

2,2,4-Trimethyl-1,3-pentanediol diisobutyrate, 70.73 % (28 d, Ready Biodegradability: CO<sub>2</sub> Evolution Test) Readily biodegradable, failing 10-d window)

## 13. Disposal Consideration:

Dispose in accordance with all national and local applicable regulations in incinerator

Advice to burn it for disposal..

## 14. Transport Information

**Home:** no data

**International(IMO):** No data

## 15. Regulatory information

Hazardous chemical materials safety control regulations

Production safety law of the People's Republic of China

The prevention and control of occupational diseases of the People's Republic of China

The prevention and control of occupational diseases of the People's Republic of China

FCLPRC

Industrial site harmful factor occupational exposure limit chemical harmful factor

Industrial site harmful factor occupational exposure limit physical factors

Chemical classification and risk of the general principles of the informed

## 16. Other Information

All the information in the MSDS is from our latest database, they are only for users' reference; users shall prepare its own operating regulation in accordance with practical situation.