

JIANGSU TIANYIN CHEMICAL INDUSTRY CO., LTD**MSDS****ETHYLENE GLYCOL DIMETHYL ETHER****1. Product Identification and Manufacture Information.**

Trade Names/Synonyms: Ethylene glycol dimethyl ether; 1,2-dimethoxyethane

CAS NO.: 110-71-4

Manufacturer: Jiangsu Tianyin Chemical Industry Co., Ltd.

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2. Composition/Information on Ingredients

Percentage: 100.00%

Usage: Solvent, pharmaceutical extracting preparation, organic composed intermediates.

3. Hazards Identification

Hazard Class: 3.2 Middle flashpoint flammable liquid

Harmful if swallowed, inhaled or absorbed through skin/eyes.

Inhalation: Irritative to respiratory tract, may cause cough, a sore throat, difficult breathing, chest pain. High concentration inhalation may cause anaesthesia.

Ingestion: May cause nausea, vomit, abdominal pain. Ingesting a large amount cause harmful to liver, kidney, blood and central nervous system.

Eyes Contact: Irritative. May cause red and swollen.

Skin Contact: Will be harmful to body health. A little irritative and may cause poisoning when absorbed via skin.

Slow hazard: Contact in a long term may cause harmful to marrow, blood cell, kidney, liver and reproductive system. May cause hazard to human's reproduction and bearing.

Flammable and explosive hazard: Flammable and irritative.

4. First Aid Measures

Skin Contact:

Immediately flush skin completely with plenty of soap and water for enough time while removing contaminated clothing and shoes. Call a physician.

Eye Contact:

Immediately flush eyes with plenty of running water or physiological saline for enough time, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Inhalation:

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

Ingestion:

Drink enough warm water to induce vomiting immediately. Call a physician.

5. Fire Fighting Measures

Flammability and Explosion: Flammability and explosion will be caused by fire and high temperature. Contact with oxidizers may cause strong chemical reactivity. Potential explosive peroxide may be created when contact with air or under sunshine. The vapors are heavier than air, it can flow along surfaces to distant ignition source and flash back.

Burn Decomposition Products: Carbon monoxide, carbon dioxide.

Extinguishing measures: Remove the containers from the fire 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:

Anti-deliquescent foam, dry chemical, or carbon dioxide, sand.

6. Accidental Release Measures

Keep all the staffs from the polluted area to safety place, and isolate the hazard area, keep unnecessary and unprotected personnel from entering. Remove all sources of ignition.

In the event of a fire, emergency staffs should wear positive pressure self-contained breathing apparatus with facepiece operated in the pressure demand or other positive pressure mode. Don't contact the leaked material. Cut off the source of leakage and prevent the leaked material enter sewer or drain as well as some other limited space. Small spill: Absorb with active carbon or other inertia material, also can use plenty of water to flush, then dilute the polluted water and put them into worthless water system. Large spills: Dike or sap for disposal. And cover with foam to reduce vapor harm. Collect spilled material in appropriate container or tanker by explosionproof pump, reclaim or transport to rubbish disposal place.

7. Handling and Storage

The manufacturing process should be wind-tight, local and/or general exhaust ventilation is necessary. The operators should be trained strictly, and should obey relative rules, an air-purifying respirator (a half-face organic vapor respirator), chemical safety goggles, staticproof clothing and rubber oilproof gloves shall be worn. Away from any area where the fire or high temperature hazard may be acute and No Smoking in the place. The ventilating device should meet the requirements of explosionproof, prevent the vapor from leaking into the work place. Avoid contact with oxidizer and acid product. Pay enough attention to the flow speed when fill into drums, containers or tanks, and should use grounding device to prevent static accumulation. 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.

Store in a cool, dry well-ventilated location with stabilizers, away from any area where the fire or high temperature hazard may be acute. The temperature in the storage house should be less than

30°C. The product shall be stored in a tightly closed container, avoid contact with air. It can't be mixed with oxidizer. All the lighting and ventilating device should meet the requirements of explosionproof. Any sparking tools and equipments are not permitted to use in it. Relative enough leak fighting device and collecting material should be equipped.

8. Exposure Controls/Personal Protection

China MAC (mg/m³): no prescription

United State of America ACGIH : no prescription

Engineering Control: The manufacturing process should be windtight, local and/or general exhaust ventilation is necessary. Provide an emergency eye wash foundation and quick drench shower in the immediate work area.

Breathing System Protection: If it can be possible to contact vapor in high concentration, an air-purifying respirator (a half-face organic vapor respirator) shall be worn.

Eye Protection: Use chemical safety goggles while contact vapor in high concentration, and it is not necessary in common situation.

Body Protection: Wear appropriate static resistant clothing.

Hand Protection: Wear rubber oil resistant gloves.

Others: No smoking, no eating and no drinking in the work area. Have a shower bath and change clothing after work. Pay enough attention to personal sanitation.

9. Physical and Chemical Properties

Appearance and Odor: Colorless liquid, a little ether odor.

PH Value: no data

Melting Point: -69.0°C

Relative Density (Water=1): 0.87

Boiling Point: 83.0°C

Relative Density (Air=1): 3.11

Saturated Vapor Press: 6.40kPa (20°C)

Inflammation Heat(kJ/mol): 2516.7

Critical Temperature (°C): 362

Critical Press (Mpa): 3.87

Octanol/water distribution coefficient:: No data

Flash Point (°C) : -2

Autoignition: 202°C

LEL [% (V/V)]: No data

UEL [% (V/V)]: No data

Min. Flammability (mJ): no data

Max. Explosion Press (Mpa): no data

Solubility: Soluble in water and hydrocarbon.

10. Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage. Contact with oxidizer hydride lithium will cause strong chemical reaction. It produces the peroxide under the action of oxidizer, and the light and heat promote peroxide to form.

Hazardous Polymerization: Will not occur

Conditions to Avoid: High temperature, light, air, flame

Incompatibilities: Strong oxidizer, strong acid

Burn Decomposition Products: Carbon monoxide, carbon dioxide.

11. Toxicological Information

Toxicity Data:

Oral Rat LDLo: 1mg/kg; Inhalation LCLo: 63mg/m³/6H

Oral Little Rat LD50: 3200 mg/kg

Skin Rabbit LDLo: 2 mg /kg

Irritation: No data.

Irritability: No data.

Incur Distortion: No data.

12. Ecological Information

No data.

13. Disposal Considerations

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

Advice to burn it for disposal.

14. Transport Information

Domestic:

Hazard Commodity Description No.: 32093

UN No.: 2252

Packing Group: III

Labeling Requirements: flammable liquid.

Packing Methods: Steel drum with small open; Glass bottle with whorl open, glass bottle with iron cap, plastic bottle or metal drum packed in wooden carton.

International:

Proper Shipping Name: 1,2-DIMETHOXYETHANE

Hazard Class: 3

UN/NA: UN2252

Packing Group: III

Information reported for product/size: 4L

Attention: Relative enough fire and leak fighting device and emergency leakage disposal equipment should be equipped in the vehicle when transport. The transporting time in the morning or evening in summer shall be better for secure consideration. Ground chain should be connected with the tank, clapboard with holes should be arranged in the tank to deduce shaking for preventing static accumulation. The product shall not be mixed with oxide or any other chemicals for food use. No insulating, drenching and high temperature during transportation. When stop in the midway, the vehicle should be away from fire, heat source and high temperature place. Fire blocking device should be equipped to the exhaust pipe. Any sparking tools and equipments are not permitted to use in loading and unloading. When transport on road or highway, the vehicle should run in accordance with the regulated route, and shall not stop at populous area. If ran in

railway, the products can't be placed at will. No transporting by wooden boat, cement boat in bulk.

15.Regulatory Information

Product Description: Ethylene glycol dimethyl ether.

In Current Chinese Chemical Inventory: Yes

Severe Toxin Classification, Sort and Description No. (GB57-93): Not available

Hazard Commodity Description No. (GB12268-90): 32093

Fatal Hazard Sources Labeling: No regulation

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.

Prepared by: Shanghai Chemical Toxin Counseling Service of China National Economics & Trade
Committee

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