

Safety Data Sheet

1, Identification of the Substance/Mixture and of the Company/Undertaking

Product name: Ethyl 3-ethoxypropionate
Supplier name: JIANGXI KOSIN FRONTIER TECHNOLOGY CO.,LTD.
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2, Hazards Identification

Hazard classification:

Flammable liquids (category 3)
Acute toxicity-oral (category 5)



Label Element: (May also be black and white)

Signal word: Warning

Pathways: Inhaled, ingested, percutaneous absorption.

Health effects: May be harmful if inhaled, may cause respiratory tract irritation.

May be harmful if swallowed. May be harmful if contact with skin, may cause skin irritation. May be harmful if contact with eyes, may cause eye irritation.

Environment hazards: May be harmful to environment.

Combustion hazard: Combustion may form explosive mixture if mixed with air.

3, Composition/Information on Ingredients

Chemical name: Ethyl 3-ethoxypropionate
Formula: C₇H₁₄O₃
Molecular weight: 146.18g/mol
Harmful ingredients: Ethyl 3-ethoxypropionate
Content: 99.5%
CAS number: 763-69-9
EINECS number: 212-112-9

4, First Aid Measures

In case of skin contact: Immediately take off contaminated clothing and wash thoroughly with soap and running water, consult a physician. If cause skin irritation or rash, consult a physician.

In case of eye contact: Open eyelids, rinse with running water or physiological saline, and consult a physician.

If inhaled: Remove the person to fresh air and keep comfortable for breathing. If breathing difficultly, give oxygen therapy. If breathing has ceased apply artificial respiration and consult a physician.

If swallowed: Drink plenty of warm water, emetic. Consult a physician.

5, Fire-fighting Measures

Dangerous characteristic: May form explosive mixture if mixed with air, and easily explode in case of open fire and high temperature.

Special hazards arising from the substance: Oxycarbide.

Suitable extinguishing media: Water spray, foam, dry powder, carbon dioxide.

Special protective equipment for fire-fighters: Wear breathing apparatus and personnel protective equipment for fire-fighting, and operate at upwind direction. Remove the vessels to an open area as possible. Evacuate immediately as the containers discolor or sound produces from the relief pressure device.

Further information: Spray can be used for cooling unopened containers.

6, Accidental Release Measures

Personal precautions: Remove all ignition sources. Cut off the leakage sources as possible. Delimit warning zone according to the flow of liquid and vapor diffusion, keep unprotected persons away from the upwind direction. Suggest emergency processing personnel wear self-contained breathing apparatus and antistatic clothes. Make sure all the equipments grounded. Prohibit contacting with or crossing the leakage.

Environmental precautions: Prevent further leakage or spillage if safe to do so.

Do not let leakage enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up: If a small amount of leakage: Absorb leakage with sand or incombustible absorbing materials. Use clean no-spark shovel to collect leakage absorbing material. If there is a large amount of leakage: Construct a barrier or pit to collect the leakage. Use anti-explosion pump to transport into tank car or special containers for collecting.

7, Handling and Storage

Safe handling: Strictly closed, provide adequate full ventilation system. The operators should be specialized trained and strict compliance with operating procedures. Wear personal protective equipment. Keep away from fire and heat sources. No smoking at workplace. Use the explosion-proof ventilation system and equipment. Prevent vapor leakage in the air of workplace. Avoid contact with oxidizers, acids, and alkaline. Pack and load carefully while transport, avoid collision and falls over, and prevent the damage of packaging and containers. Equipped with the appropriate variety and quantity of fire-fighting equipments and leak emergency treatment equipment. Hazardous residues may still left in the empty containers.

Conditions for safe storage, including incompatibility: Store in dark, cool, dry and well-ventilated place. Keep away from fire and heat sources. Keep containers tightly closed, filled with dry inert gas. Isolate from oxidants, alkaline and edible chemicals, and avoid mixing storage. Use explosion-proof lighting and ventilation equipment, and prohibit the use of machinery equipments and tools which can generate spark easily. Storage areas should be equipped with leakage emergency treatment equipments and suitable containing materials.

8, Exposure Controls/Personal Protection

Control parameter (such as the occupation exposure limits or biological exposure limit):

China (MAC): No data available

U.S.A: No data available

Appropriate engineering controls: Strictly closed, provide adequate full ventilation system. Provide safety shower and eyewash equipments.

Personal protective measures:

Respiratory protection: Wear protective mask if the concentration in the air is out of limits.

Eye protection: Wear chemical safety glasses.

Body protection: Wear anti-permeability work clothes.

Hand protection: Wear rubber gloves.

Other protection: No smoking at workplace. Wash thoroughly after work.

Work clothing should not be taken into non-work areas. Store the contaminated clothing separately, wash every time after use. Pay attention to personal hygiene.

9, Physical and Chemical Properties

Appearance: Colorless liquid, with esters odor.

pH: No data available.

Melting point(°C): -50

Boiling point(°C): 169-171

Density (g/cm³): 0.947-0.953 (20°C)

Relative vapor density (where the air is 1): 5.03

Saturation vapor pressure:0.23kPa (20°C)

Heat of combustion (kJ/mol): No data available.

Critical temperature (°C): No data available.

Critical pressure (MPa): No data available.

Log value of octanol/water partition coefficient: 1.47

Flash point (°C):59 (closed cup).

Ignition temperature (°C):377

Upper explosion limit % (V/V): 9.8

Lower explosion limit % (V/V): 1.05

Thermal decomposition temperature: No data available.

Solubility: soluble in water, soluble in alcohol

10, Stability and Reactivity

Stability: Stable.

Possibility of dangerous reaction: No data available

Conditions to avoid: Fire, electrostatic, high temperature.

Materials to avoid: Strong oxidant, alkali.

Hazardous decomposition products: Oxycarbide.

11, Toxicological Information

Acute toxicity:

LD₅₀ (Oral-rat)-3200~4309mg/kg

LD₅₀ (Dermal-rabbit)-No data available

LC₅₀ (rat)-No data available

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: No data available
Respiratory of skin sensitization: No data available
Germ cell mutagenicity: No data available
Carcinogenicity: No data available
Reproductive toxicity: No data available
Specific target organ toxicity-single exposure: No data available
Specific target organ toxicity-repeated exposure: No data available

Aspiration hazard: No data available
Others: No data available

12, Ecology Information

Toxicity:
Toxicity to fish: No data available
Toxicity to water lea and other aquatic invertebrate: No data available
Toxicity to aquatic plant (algae): No data available
Persistence and degradability: No data available

13, Disposal Considerations

Product disposition: Dispose to hazardous waste disposal companies for disposal.
Disposition of contaminated wrapper: Dispose as unused products. Recommended for incineration disposal.
Other information: Refer to local regulations before disposition.

14, Transport Information

UN number: 3272
The united Nations official transport Name: ESTERS, N.O.S. (Ethyl 3-ethoxypropionate)

Packing group: III

Transportation note: Check if the containers intact and sealed or not before transport. Make sure the containers not leaked, collapsed, dropped and damaged during the transportation. Transport vehicles should be equipped with the appropriate variety and quantity of fire-fighting equipments and emergency treatment equipments for leakage. It's better to transport in morning or at night in summer. Tank cars for transportation should be equipped with grounding chains, and hole boards can be used to reduce static electricity because of vibration in the tank. Transported separately with oxidants, alkaline and edible chemicals. Protect from sunlight, rain and high temperature during transportation. Stay away from fire, heat, high temperature area in the half-way stop.

The exhaust pipe of transport vehicles must be equipped with fire resistance device. Prohibit the use of machinery equipments and tools which can generate spark easily during loading and unloading process.

15, Regulatory Information

Domestic chemicals safety management regulations:"Hazardous chemical materials safety management regulations" (No.591st decree of the State Council, 2011), make requirements of safe handling, production, storage, transport, loading and unloading of hazardous chemicals.

International laws:"UN Recommendations on the Transport of Dangerous Goods. Model Regulations" etc.

16, Other Information

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