

Material Safety Data Sheet

Part 1 Chemicals and enterprise identification

Chemical Name: Fatty acids, C10-20 and C16-18-unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized

Recommended use: surfactant, etc.

Company name: JINING GREEN MOUNTAIN CHEMICAL CO.,LTD.

Supplier's telephone: +86 537 227 5079

Address: Jining, Shandong Province, China

Emergency number: +86 532 8388 9090 (24 hours)

Part 2 Hazard identification

GHS risk Category:

Flammable solids, Category 2

Skin irritation, Category 2

Eye irritation, Category 2A

Acute aquatic toxicity, Category 2

Pictogram:



Warning: Warning

Hazard statements :

H228 : Flammable solid.

H315 : Causes skin irritation.

H319 : Causes serious eye irritation.

H401 : Toxic to aquatic life.

Precautionary statements:

- | | |
|-------------------|---|
| Prevention | P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. |
|-------------------|---|

Response P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see supplemental first aid instructions on this label).
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Disposal P501 Dispose of contents/ container to an approved waste disposal plant.

Classification according to EU Dangerous Substances or Preparations Directives

Categories of danger for substances and mixtures

Irritant

Highly flammable

Risk advice to man and the environment

Irritating to eyes and skin.

Highly flammable.

Other hazards which do not result in classification

Vapours may form explosive mixtures with air.

Part 3 Component/component information

Chemical name	CAS No.	GHS Classification	Component content
C10-18 Fatty acid triethanolamine ester quaternary, methyl sulphate	91995-81-2 / or 157905-74-3	Skin Irrit. 2; H315 Eye Irrit. 2A; H319 Aquatic Acute 2; H401	60% to 100%
Isopropanol	67-63-0	Flam. Liq. 2; H225 Eye Irrit. 2A; H319 STOT SE 3; H336	9% to 30%

Part 4 First aid measures

Urgent rescue:

Inhalation: If inhaled, remove to fresh air.

Skin contact: Remove contaminated clothing and rinse skin thoroughly with soap and water.If you feel unwell, seek medical advice.

Eye contact: Separate eyelid, flush with flowing water or normal saline.Immediately flush your eyes with plenty of water for at least 15 minutes. Remove contact lenses, if available and easy to do. Continue flushing. Seek medical attention immediately.

Ingestion: Gargle, do not induce vomiting.Seek medical attention immediately.

Advice to protect the rescuer: Move the patient to a safe location.Consult your doctor.Show this chemical safety specification to the on-site doctor.

Part 5 Fire protection measures

Fire extinguishing agent:

Water fog. Foam. Carbon dioxide (CO₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Do not use water jet as an extinguisher, as this will spread the fire. Avoid the use of direct running water, which may cause splashing of flammable liquids and spread the fire.

Special risk:

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.

Fire-fighting Precautions and Protective measures:

Fire fighters shall wear respirators and full - body fire suits to put out the fire upwind.

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Evacuate immediately if containers in the fire are discolored or emit sound from the safety relief device.

Isolate the scene of the accident and keep out irrelevant personnel. Collect and treat fire water to prevent environmental pollution.

Part 6 Emergency response to leaks

Operating personnel protective measures, protective equipment and emergency disposal procedures:

Eliminate all ignition sources.

It is recommended that emergency responders wear respirators, antistatic clothing and rubber oil-resistant gloves.

Do not touch or cross the spill.

Keep combustibles (e.g. wood, paper, oil) away from spilled material.

All equipment used in the operation shall be earthed.

Cut off the source as much as possible.

Environmental protection measures:

Absorb leakage and avoid polluting the environment. Prevent leakage into sewers, surface water and groundwater.

Methods of receiving and removing spilled chemicals and materials used for disposal:

Small leakage: Collect leaking liquids in airtight containers where possible. Absorb with sand, activated carbon or other inert materials and transfer to a safe place. Do not flush into drains.

Large leakage: levee or pit. Seal the drain. Cover with foam to inhibit evaporation. Transfer to tank truck or special collector with explosion-proof pump, recover or transport to waste disposal site.

Part 7 Operation Disposal and storage

Operational Considerations:

Keep away from fires and heat sources. Smoking is strictly prohibited in the workplace.

Operators should be specially trained and strictly abide by the operating rules.

Handling should be performed in areas with partial or full ventilation facilities. Protect against direct sunlight.

Avoid contact between eyes and skin, and avoid inhalation of steam.

If canning is needed, the flow rate should be controlled and there should be a grounding device to prevent the accumulation of static electricity.

Avoid contact with prohibitions such as oxidants (see Part 10).

Handle with care to prevent damage to packing and container.

Equipped with the appropriate variety and quantity of fire fighting equipment and leakage emergency treatment equipment.

Precautions for storage:

Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques.

Store in a cool, dry, ventilated warehouse, avoid direct sunlight.

Keep separate from oxidants and edible chemicals, and avoid mixing them (see Part 10 for prohibited substances).

Keep container sealed.

Keep away from fire and heat.

Explosion-proof lighting and ventilation are adopted.

Do not use spark-prone equipment and tools.

The storage area shall be equipped with leakage emergency treatment equipment and appropriate containment materials.

Part 8: Contact control/personal protection

This product is hazardous. Handling this chemical without proper personal protection equipment and other exposure controls may result in injury.

Components with workplace control parameters

China GBZ 2.1—2019

Occupational exposure limits for hazardous agents in the workplace — Part 1: Chemical hazardous agents

English name	CAS number	OELs mg/m ³		critical adverse health effects***
		PC-TWA*	PC-STEEL**	
Isopropyl alcohol (IPA)	67-63-0	350	700	Eye and upper respiratory tract irritation; Central nervous system damage

OELs: occupational exposure limits.

***PC-TWA: permissible concentration-time weighted average;**

The average allowable exposure concentration for 8 h working days and 40 h working weeks with time as the weight.

****PC-STEEL: permissible concentration-short term exposure limit;**

Under the premise that the actual measured average exposure concentration of 8 h working days and 40 h working weeks complies with PC-TWA, the weighted average exposure concentration of workers for a short period of time (15 min) is allowed.

***The **critical adverse health effect** is used to determine the allowable exposure concentration of an occupational hazard factor, that is, the adverse health effect based on the occupational exposure limit.

ENGINEERING CONTROLS:

Good ventilation to ensure that the product is below the occupational hazard limit. Explosion-proof general and local exhaust ventilation in confined or enclosed spaces.. Good general ventilation should be used.

Ensure that eyewash stations and safety showers are close to the workstation location.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection:

Keep respiratory equipment available. If use conditions can generate aerosol or mist, wear suitable respiratory equipment. Wear full face mask supplied with Combination filter: ABEKP.

In case of insufficient ventilation, wear suitable respiratory equipment. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Eye protection:

Tightly fitting safety goggles

Skin and body protection:

Protective suit

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

ENVIRONMENTAL EXPOSURE CONTROLS

General advice:

Prevent product from entering drains.

Part 9 Physical and chemical properties

Appearance Form: paste

Colour: light yellow or white

Odour: Isopropanol

Odour Threshold: no data available

Safety data

Flash point: 37.8 °C

Thermal decomposition : no data available

Lower explosion limit: no data available

Upper explosion limit: no data available

Flammability (solid, gas): The substance or mixture is a flammable solid with the category 2.

Oxidizing properties: The substance or mixture is not classified as oxidizing.

Autoignition temperature: no data available

pH: 2.5-3.5 at 5 % solution

Melting point/range: 32.8 °C

Boiling point/boiling range: 78.27°C

Vapour pressure: no data available

Density: 960 kg/m³

Relative density: no data available

Water solubility: completely soluble

N-octyl alcohol/water partition coefficient (LG P) : no data available

Viscosity, dynamic: no data available

Viscosity, kinematic: > 20.5 mm²/s at 40 °°C

Relative vapour density: no data available

Evaporation rate: no data available

Explosive properties: Not explosive

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

Part 10 Stability and reactivity

Conditions to avoid : Heat, flames and sparks.

Chemical stability and hazardous reaction: No dangerous reaction known under conditions of normal use.

Avoid contact conditions: electrostatic discharge, heat, flame, sparks, etc. Avoid temperatures exceeding the flash point.

Incompatible materials: strong oxide, acids, isocyanates, chlorine.

Dangerous decomposition products: no data available.

Part 11 Toxicological information

Product information:

Hazard Summary

Inhalation: Inhalation of aerosols may cause irritation to mucous membranes.

Thermal decomposition can lead to release of irritating gases and vapours.

Skin:

Causes skin irritation.

Eyes:

Causes serious eye damage.

Ingestion:

May cause irritation of the mucous membranes

Toxicology Assessment

Further information: Solvents may degrease the skin.

Toxicology data for the components:

Test result

Component: C10-18 Fatty acid triethanolamine ester quaternary, methyl sulphate

Skin irritation : Result: Irritating to skin.

Eye irritation : Result: Irritating to eyes.

Sensitisation : Result: Not sensitizing.

Method: Buehler Test

Germ cell mutagenicity

Genotoxicity in vitro : Ames test

Result: negative

Component: 2-Propanol

Acute oral toxicity : LD50: >2,000 mg/kg

Species: rat

Part 12 Ecological information

Product information:

Ecotoxicology Assessment

Additional ecological information : None known.

Components:

Ecotoxicology Assessment

Component: C10-18 Fatty acid triethanolamine ester quaternary, methyl sulphate

Results of PBT assessment : This substance is not considered to be a PBT (Persistent, Bioaccumulation, Toxic)

This substance is not considered to be vPvB (very Persistent nor very Bioaccumulating)

Component: 2-Propanol

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This substance is not considered to be vPvB (very Persistent nor very Bioaccumulating)

Ecotoxicity:

Acute toxicity test of fish: No data available

Daphnia acute activity inhibition test: No data available

Algal growth inhibition test: No data available

Toxicity to microorganisms: No data available

Persistence and degradation: no data available.

Bioaccumulation or bioaccumulation: no data available.

Migration in soils: no data available.

Part 13 Waste disposal

Product

Do not dispose of waste into sewer.

Do not contaminate ponds, waterways or ditches with chemical or used container.

Hazardous waste. This product shall not be disposed of by means of drainage.

Contaminated packaging

Empty remaining contents.

Dispose of as unused product.

Do not burn, or use a cutting torch on, the empty drum.

Before disposal of waste should refer to the relevant national and local regulations.

See Section 8 for safety precautions for disposal personnel.

Part 14 Transport information

IATA

UN number : 3175

Proper shipping name : Solids containing flammable liquid, n.o.s.(isopropyl alcohol)

Class : 4.1

Packing group : II

Labels : 4.1

Packing instruction (cargo aircraft): 448

Packing instruction (passenger aircraft): 445

Packing instruction (LQ) : Y441

Environmentally hazardous : no

IMDG

UN number : 3175

Proper shipping name : SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S.(isopropyl alcohol)

Class : 4.1

Packing group : II

Labels : 4.1

EmS Number 1 : F-A

EmS Number 2 : S-I

Marine pollutant: no

Tank transport:

UN1993, FLAMMABLE LIQUID N.O.S. (Isopropyl alcohol), 3, Packaging group III

Part 15 Regulatory information

Listed in the regulations below (CAS no. 157905-74-3 or 91995-81-2):

CHINA - China Inventory of Existing Chemical Substances

TSCA - United States Toxic Substances Control Act

ENCS - Japan Existing and New Chemical Substances

EINECS - European Inventory of Existing Commercial Chemical

Part 16 Additional information

The above information is considered correct but does not claim to be complete and should be used only as a guide. The information in this document is based on our current knowledge and applies to the appropriate safety precautions for the product. It does not represent any guarantee of the performance of the product.

The Company and its subsidiaries shall not be liable for any damage caused by handling or contact with the above products. Please refer to the back of the invoice or packing list for additional terms of sale.