

SAFETY DATA SHEET (SDS)

Version 1.1

Revision Date: 2024/11/16

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

- **Product name:** (Chloromethyl)triethoxysilane

Manufacturer or supplier's details

- **Company:** MR TEK LIMITED
- **Address:** ROOM 06, 13A/F, SOUTH TOWER, WORLD FINANCE CENTER, HARBOUR CITY,
17 CANTON ROAD, TSIM SHA TSUI, KOWLOON, HONGKONG
- **Telephone:** 021-67121386
- **Telefax:** 021-67121385
- **E-mail address:** info@mingrang-tek.com

Emergency telephone

- **Emergency contact:** 0532-83889090

2. HAZARDS IDENTIFICATION

Emergency Overview

- **Appearance:** Liquid (colorless - yellow)

- Key hazards: Flammable liquid and vapor. May be harmful if swallowed. Causes mild skin irritation. Causes eye irritation.

GHS Classification

Hazard Category	Description
Flammable liquids	Category 3
Acute toxicity (Oral)	Category 5
Skin corrosion/irritation	Category 3
Serious eye damage/eye irritation	Category 2B

GHS label elements



- **Hazard pictograms:**
- **Signal Word:** Warning
- **Hazard Statements:**
 - H226: Flammable liquid and vapor.
 - H303: May be harmful if swallowed.
 - H316: Causes mild skin irritation.
 - H320: Causes eye irritation.
- **Precautionary Statements:**
 - **Prevention:**
 - P210: Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
 - P233: Keep container tightly closed.
 - P240: Ground/bond container and receiving equipment.
 - P241: Use explosion-proof electrical/ ventilating/ lighting/ equipment.
 - P242: Use only non-sparking tools.

- P243: Take precautionary measures against static discharge.
- P264: Wash skin thoroughly after handling.
- P280: Wear protective gloves/ eye protection/ face protection.

○ **Response:**

- P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312: Call a POISON CENTER/ doctor if you feel unwell.
- P332 + P313: If skin irritation occurs: Get medical advice/ attention.
- P337 + P313: If eye irritation persists: Get medical advice/ attention.
- P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

○ **Storage:**

- P403 + P235: Store in a well-ventilated place. Keep cool.

○ **Disposal:**

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

Other Hazards

- **Physical and chemical hazards:** Flammable liquid and vapor.
- **Health hazards:** May be harmful if swallowed; causes mild skin irritation; causes eye irritation.
- **Environmental hazards:** Not classified based on available information.
- **Unclassified hazards:** None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

- **Substance / Mixture:** Substance

Chemical name	CAS RN	Concentration (% w/w)
(Chloromethyl)triethoxysilane	15267-95-5	95

4. FIRST AID MEASURES

Exposure Route	First Aid Actions
If inhaled	Remove person to fresh air and keep comfortable for breathing. Get medical advice/ attention if you feel unwell.
In case of skin contact	Take off all contaminated clothing immediately. Rinse skin well with water. If skin irritation occurs: Get medical advice/ attention.
In case of eye contact	Rinse with plenty of water. If easy to do, remove contact lens (if worn). If eye irritation persists: Get medical advice/ attention.
If swallowed	Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.

Most important symptoms and effects, both acute and delayed

None known.

5. FIRE-FIGHTING MEASURES

- **Suitable extinguishing media:** Dry powder, Foam, Water spray, Carbon dioxide (CO₂)
- **Specific hazards during fire fighting:** No information available.
- **Specific extinguishing methods:**

- Use extinguishing measures appropriate to local circumstances and the surrounding environment.
 - Immediately evacuate personnel to safe areas.
 - Remove undamaged containers from the fire area if safe to do so.
- **Special protective equipment for fire-fighters:** Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Wear suitable protective equipment.
- Keep people away from and upwind of the spill/leak.
- Ensure adequate ventilation.
- Control entry to non-involved personnel around the leakage area (e.g., by roping off).

Environmental precautions

Prevent product from entering drains.

Methods and materials for containment and cleaning up

Collect as much of the spill as possible with a suitable absorbent material.

7. HANDLING AND STORAGE

Handling

- **Technical measures:**
 - Prevent generation of vapor or mist.
 - Take precautionary measures against static discharge.
 - Use explosion-proof equipment.

- Ensure adequate ventilation (local exhaust ventilation recommended).

- **Advice on safe handling:**

- Avoid contact with skin, eyes and clothing.
- Wear personal protective equipment.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Do not subject to grinding, shock or friction.
- Wash hands and face thoroughly after handling.

- **Avoidance of contact:** Oxidizing agents.

Storage

- **Conditions for safe storage:**

- Keep container tightly closed.
- Store in a cool and shaded area.
- Keep in a well-ventilated place.
- Use explosion-proof equipment.
- Protect from moisture.
- Keep under inert gas.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures

- Install a closed system or local exhaust.

- Install a safety shower and eye bath.

Personal protective equipment

Type of Protection	Details
Respiratory protection	Gas mask
Eye/face protection	Safety glasses; Face-shield
Skin and body protection	Protective suit
Hand protection	Protective gloves

Use personal protective equipment (PPE) approved under appropriate government standards and follow local and national regulations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Details
Appearance	Liquid
Color	Colorless - yellow
Odor	No data available
Odor Threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Boiling point/boiling range	180 °C
Flash point	47 °C
Evaporation rate	No data available
Flammability	No data available
Upper explosion limit / Upper flammability limit	No data available
Lower explosion limit / Lower flammability limit	No data available
Vapor pressure	No data available
Relative density	1.03

Water solubility	No data available
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity (dynamic)	No data available
Viscosity (kinematic)	No data available
Molecular weight	212.75 g/mol

10. STABILITY AND REACTIVITY

- **Reactivity:** No data available
- **Chemical stability:** Stable under normal conditions.
- **Possibility of hazardous reactions:** None under normal processing.
- **Conditions to avoid:** Electrical spark, Open flame, Electrostatic discharge, Exposure to moisture.
- **Incompatible materials:** Oxidizing agents
- **Hazardous decomposition products:** Carbon monoxide, Carbon dioxide (CO₂), Silicon oxides, Hydrogen chloride gas

11. TOXICOLOGICAL INFORMATION

Acute toxicity

- **Product:** Assessment - The component/mixture is minimally toxic after single ingestion.
- **Component (Chloromethyl)triethoxysilane:**
 - Acute oral toxicity: LD₅₀ (Rat) - 2,400 mg/kg; Assessment - Minimally toxic after single ingestion.

Skin corrosion/irritation

- **Product:** Result - Mild skin irritation
- **Component (Chloromethyl)triethoxysilane:** Result - Mild skin irritation

Serious eye damage/eye irritation

- **Product:** Result - Mild eye irritation
- **Component (Chloromethyl)triethoxysilane:** Result - Mild eye irritation

Other toxicological effects

- Respiratory or skin sensitization: No information available
- Germ cell mutagenicity: No information available
- Carcinogenicity: No information available
- Reproductive toxicity: No information available
- STOT-single exposure: No information available
- STOT-repeated exposure: No information available
- Repeated dose toxicity: No information available
- Aspiration toxicity: No information available
- RTECS No.: VV2275000 ((Chloromethyl)triethoxysilane)

12. ECOLOGICAL INFORMATION

- Ecotoxicity: No data available
- Persistence and degradability: No data available
- Bioaccumulative potential: No data available
- Mobility in soil: No data available
- Other adverse effects: No data available

13. DISPOSAL CONSIDERATIONS

Disposal methods

- **Waste from residues:**
 - Dispose in accordance with local and national regulations.
 - Take precautions against ignition or explosion.
 - Entrust disposal to a licensed waste disposal company.
- **Contaminated packaging:**
 - Dispose in accordance with local and national regulations.
 - Remove contents completely before disposing of used containers.

14. TRANSPORT INFORMATION

International Regulations

Regulation	Details
IATA-DGR	UN/ID No.: UN 1993; Proper shipping name: Flammable liquid, n.o.s.; Class: 3; Packing group: III
IMDG-Code	UN number: UN 1993; Proper shipping name: FLAMMABLE LIQUID, N.O.S.; Class: 3; Packing group: III; EmS Code: F-E, S-E
Domestic (GB 6944/12268)	UN number: UN 1993; Proper shipping name: FLAMMABLE LIQUID, N.O.S.; Class: 3; Packing group: III

15. REGULATORY INFORMATION

Regulations on Safety Management of Hazardous Chemicals

The ingredients of this product are reported in the following inventories:

Inventory	Status
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CH BAGREG	On the inventory, or in compliance with the inventory
TSCA	All substances listed as active on the TSCA inventory
AICS	On the inventory, or in compliance with the inventory
DSL	None of the components are on the Canadian DSL; all are on the NDSL ((Chloromethyl)triethoxysilane)
ENCS	On the inventory, or in compliance with the inventory
ISHL	On the inventory, or in compliance with the inventory
KECI	Not in compliance with the inventory
PICCS	Not in compliance with the inventory
IECSC	On the inventory, or in compliance with the inventory
NZIoC	Not in compliance with the inventory

16. OTHER INFORMATION

- **Revision Date:** 2024/11/16
- **Date format:** yyyy/mm/dd

Disclaimer

This SDS was prepared in good faith based on available information, but no warranty is provided regarding the accuracy of the data or the assessment of hazards and toxicity. Before use, verify not only the hazard and toxicity information but also the laws and regulations of the organization, region, and country where the product will be used (these shall take priority). Products should be used promptly after purchase for safety reasons. Additional information or amendments may be added later. If the product is to be used significantly beyond the expected use time or if you have questions, please contact us. The stated precautions apply only to normal handling; for special operations, take adequate care and implement safety measures suitable for the specific situation. All chemical products should be treated as "having unknown hazards and toxicity,"

which may vary significantly based on use conditions, handling practices, and storage conditions/duration. Products must be handled only by personnel with specialized knowledge and experience, or under the guidance of such specialists, throughout the entire process from opening to storage and disposal. Each user is responsible for establishing safe usage conditions.

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