



Material Safety Data Sheet

Revision Date: 2019-08-01

) LT-560

LT-560

Version No: 2.0

Material Safety Data Sheet - Authored according to GB/T16483(2008) and GB/T17519(2013)

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Name of substance/preparation

Commercial product name: LT-560

Chemical name: γ -(2,3-epoxy propoxy) propyl tri methoxy silane

1.2 Use of substance/preparation

A Silane coupling agent for improve the adhesion properties of organic and inorganic material

1.3 Company information

Manufacturer/distributor: Telephone:

Fax:

E-mail:

Website:

1.4 Revision date

2019.08.01

2. HAZARDS IDENTIFICATION

2.1 GHS classification

Physical Hazard unclassified

Health Hazard

Seriously injured/Eye Irritation Category: 1

Environmental Hazard

Acute Aquatic Toxicity Category: 3

2.2 GHS Label elements, including precautionary statements



Pictogram

Signal word

Warning

Hazard statement(s)

H318

Causes serious eye damage

Precautionary statement(s)

Prevention



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LT-560

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P280	Wear protective gloves/protective clothing/eye protection/face protection
Incident Response	
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P310	Immediately call a poison center or doctor/ ...
Safe storage	
P405	Store locked up
Disposal consideration	
P501	Dispose of contents/container in accordance with local regulation.
2.3 Other effects	
Chronic exposure:	No relevant data

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical characterization (substance)

Chemical characteristics	CAS No.
γ -(2,3-epoxy propoxy)propyl tri methoxy silane	2530-83-8

3.2 Hazardous ingredients

Chemical name	CAS No.	Concentration
γ -(2,3-epoxy propoxy)propyl tri methoxy silane	2530-83-8	$\geq 97.0\%$
Methanol	67-56-1	$\leq 3.0\%$

4. FIRST AID MEASURES

4.1 General information

Take persons to a safe place, looking for doctor, and present this safety data sheet to the doctor.

4.2 After inhalation

Move the exposed person to fresh air at once. Keep breathing well and rest. If feel unwell. Seek medical advice immediately.

4.3 After contact with the skin

Remove contaminated clothes at once. Wash off with plenty of water and soap. If skin irritation. Seek medical advice immediately

4.4 After contact with the eyes



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Immediately flush the contaminated eye(s) with water for several min. If contact lens is present, DO NOT delays irrigation or attempt to remove the lens. Do not interrupt flushing. If eyes irritation. Seek medical advice immediately.

4.5 After swallowing

If feel unwell. Seek medical advice immediately and rinse the mouth

4.6 Advice for the physician

Rescuers need to wear personal protective equipment, such as rubber gloves and air-tight goggles.

5. FIRE FIGHTING MEASURES

5.1 Flash point

Flash point is 110°C

5.2 Suitable extinguishing media

On large fires use dry chemical or foam. On small fires use CO₂ or dry chemical. Water can be used to cool fire exposed containers.

5.3 Specific hazards

Be careful, combustion or high temperature may decompose to produce toxic smoke.

5.4 Specific method

Determine if evacuation or isolation of the area is necessary according to the local emergency plan. Keep containers exposed to fired cool by spraying water.

5.5 Special protective equipment for Firemen

Use fire extinguisher, be sure to wear personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions

Wear personal protection equipment.

Avoid breathing vapors, mist or gas.

Ensure adequate ventilation.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so.

Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

Discharge into the environment must be avoided.

6.3 Methods for cleaning up

Absorbed by inert adsorption material and treated as hazardous waste. Stored in a suitable closed processing container.



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LT-560

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7. HANDLING AND STORAGE

7.1 Precautions for operation and disposal

Handle in a well-ventilated area

When used, it comes into contact with flammable methanol in water or moist air.

When use, methanol exposure must be controlled and ventilation provided by air supply or self-contained breathing apparatus.

Keep out of the eyes.

Avoid skin contact.

Avoid breathing in steam, mist, dust or smoke..

Keep container sealed.

Do not take internally.

Take off contaminated clothing immediately.

Develop good industrial hygiene habits, must clean, before eating, drinking or smoking.

Take fire precautions

7.2 Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

Containers opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure limits

Component	CAS No.	Value
γ -(2,3-epoxy propoxy)propyl tri methoxy silane	2530-83-8	See the methanol term
Methanol	67-56-1	China: TWA 25 mg/m ³ . STEL 50 mg/m ³ . can be absorbed through the skin. OSHA PEL (final rule): TWA 200 ppm, 260 mg/m ³ ACGIH TLV-skin: TWA 200ppm, STEL 250 ppm.

8.2 Exposure in the work place limited and controlled

Workplaces are recommended to be separated.



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Closed operation to prevent leakage.

Strengthen ventilation.

Set up automatic alarm device and emergency ventilation facilities.

Set up emergency evacuation channels and necessary co-danger areas.

Set up red warning lines, warning signs and warning instructions in Chinese, and communication alarm system.

Provide safe shower and eye wash facilities.

8.3 Personal Protective.

Respiratory protection: Gas masks. According to local and government regulations.

Hand protection: Wear gloves

Eyes protection: Safety goggles. Wear a mask if necessary.

Skin and body protection: Protective clothing. Wear protective boots if necessary.

8.4 Environmental protection

Partial ventilation recommend

Regular ventilation recommend.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state/form.....: liquid
Color.....: colorless
pH.....: approx. 7 at 25°C (50g/l H₂O)
Boiling point.....: 290°C at 760mmHg
Melting point.....: < -50°C
Flash point.....: 110°C (Tag closed cup tested)
Ignition temperature.....: No data available
Oxidizing properties.....: No
Upper explosion limit.....: not determined
Lower explosion limit.....: not determined
Vapor pressure.....: 0.00213mmHg at 25°C
Vapor density.....: no data available
Density/relative density.....: 1.070g/cm³(25°C)
Solubility.....: react with water
Heat of combustion.....: no data available
Viscosity(dynamic).....: approx. 3mPa·s at 25°C

10. STABILITY AND REACTIVITY



Material Safety Data Sheet

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LT-560

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10.1 General information

It is stored and handled in accordance with conventional industrial practices for non-hazardous reactions.

10.2 Chemical stability: moisture sensitive.

10.3 Reactions

Avoid contact conditions: Incompatible materials, ignition sources, excess heat, exposure to moist air.

Hazardous decomposed product: Silicon dioxide, nitrogen oxides, carbon monoxide.

Hazardous polymerization: Polymeric reactions tend to occur in the presence of water, strong acids, heat and especially iron.

11. TOXICOLOGICAL INFORMATION

11.1 Route of infection: inhale, skin exposure and eat by mistake.

11.2 Signs and symptoms of overexposure:

Inhalation is harmful. Swallow is harmful, eyes damage. May cause skin irritation.

11.3 Acute toxicity:

Chemical name	CAS NO.	Median lethal dose(Oral)	Median lethal dose(Skin)	LC 50(inhale)
γ -(2,3-epoxy propoxy)propyl tri methoxy silane	2530-83-8	7010 mg/kg (rat)	3970 mg/kg(Rabbit)	-

Potential health effects

Inhale: inhale is harmful, may cause respiratory irritation.

Intake: Ingestion is harmful to human health

Skin: It can be harmful if absorbed through the skin. May cause skin irritation.

Eye: Eye irritation

11.4 Chronic toxicity

Organosilicon compounds generally have low toxicity

11.5 Other health hazard information

This material may release methanol in contact with moisture or moist air, Excessive methanol can lead to blindness and neurological effects.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity:

Fish: LC50 237mg/l test time:96 hours rainbow trout



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Water flea and other aquatic invertebrate: EC50 55mg/l test time:48 hours carp

Algae: EC50 40 mg/l test time: 72 hours Sweet water algae

12.2 Residuality / Degradability

Hydrolyzed in water or moist air, the product releases methanol and organic silicone compounds

12.3 Potential bioaccumulation(BCF): No data

12.4 Mobility in the soil: No data

12.5 Additional environmental information

Environmental hazards cannot be ruled out even in cases of professional treatment or disposal.

13. DISPOSAL CONSIDERATIONS

Material: Handle properly according to local regulations.

Packaging: Handle properly according to local regulations.

14. TRANSPORT INFORMATION

Class of dangerous goods: No

UN No: No

Package Level: No

Official shipping name: No

Chemical Name: No

This product has not been classified as dangerous goods by UN, IATA and IMDG.

15. REGULATORY INFORMATION

Must comply with national and local regulations. Label, see the information in this document. <Regulations on safety management of hazardous chemicals> (Released by The State of Council at Feb. 16th. 2011). Relevant provisions have been made for the safe use, production, storage, transportation, loading and unloading of hazardous chemicals.

16. OTHER INFORMATION

Prepared by Hubei Bluesky New Material Inc.

(R) indicates Registered Trademark

The information provided in this Safety Data Sheet is to the best of our knowledge and assumed that the data listed above are correct. However, there is no basis, express or implied, for making adjustment according to the requirement of different regions. Compliance with federal, national.



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Provincial or local regulations is the responsibility of the buyer/user. Above listed information applies only to the transportation of products. Since the conditions of use of products are not controlled by our company, users have the obligation to determine the technology and conditions required for the safe use of chemicals. As information comes from different sources, we are not responsible for MSDS from other sources. If you have obtained our MSDS from non-us sources or you are not sure our MSDS is the latest version, please contact us.

-End of Material Safety Data Sheet-



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