



# Material Safety Data Sheet

Revision Date: 2021-04-20

LT-570

## LT-570

Edition: 2.0

Material Safety Data Sheet are compiled according to GB / T 16483(2008), GB / T 17519(2013)

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### 1.1 Name of substance/preparation

Commercial product name: LT-570

Chemical name:  $\gamma$ -(Methacryl oxyl) propyl tri methoxy silane

#### 1.2 Use of substance/preparation

Silane coupling agent for improving the surface bonding properties of organic and inorganic materials.

#### 1.3 Company information

Manufacturer/distributor:

Telephone:

Emergency Safety Tel.:

Fax:

E-mail:

Website:

#### 1.4 Revision date :

2021.04.20

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of GHS

##### Physical hazard

flammable liquid

Category 4

##### Health hazard

Acute toxicity-oral

Category 5

Acute toxicity- skin

Category 5

##### Environment hazard

#### 2.2 Label elements of GHS



**Pictogram**

**Signal word**

warning

**Hazard statement(s)**

H227

Flammable liquid

H303+H313

May be harmful in contact with swallowing or skin.



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<b>Precautionary Measure</b>	
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection
<b>Accident respond</b>	
P370+P378	In case of fire: Use Dry sand, dry powder or soluble bubble for extinction.
P403+P235	Store in a well-ventilated place. Keep cool.
<b>Safety Storage</b>	
P405	The storage area must be locked.
<b>Waste disposal</b>	
P501	Dispose of contents/container to (in accordance with local/regional/national/international regulation
<b>2.2 Other effects</b>	
<b>Chronic:</b> No information found.	

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Chemical characterization (substance)

CAS No.	Chemical characteristics
2530-85-0	$\gamma$ -(Methacryl oxyl) propyl tri methoxy silane

#### 3.2 Ingredients

Chemical name	CAS No.	Concentration
$\gamma$ -(Methacryl oxyl) propyl tri methoxy silane	2530-85-0	$\geq 97.0\%$
Methanol	67-56-1	$\leq 3.0\%$



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## 4. FIRST AID MEASURES

### 4.1 General information

Move the patient to the safety area, consult a physician. Show this safety data sheet to the doctor in attendance.

### 4.2 After inhalation

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

### 4.3 After contact with the skin

Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

### 4.4 After contact with the eyes

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

### 4.5 After swallowing

Get medical attention.

### 4.6 Advice for the physician

Treat symptomatically and supportively.

## 5. FIRE FIGHTING MEASURES

### 5.1 Flash point: 108°C

### 5.2 Suitable extinguishing media

Use dry powder or foam in large fires and carbon dioxide, dry powder, and sand in small fires. Water can be used to cool containers affected by the fire.

### 5.3 Special danger

Be careful, it may decompose under fire or high temperature to produce toxic fumes.

### 5.4 Specific methods

Decide whether you need to evacuate or isolate the area based on your local emergency plan. Keep water exposed containers cool by spraying water.

### 5.5 Special protective equipment for firefighters

Wear personal protective equipment when fighting fires.



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## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions

Wear personal protection equipment, avoid contact with eyes and skin. Avoid inhaling mists and vapours. Ensure adequate ventilation.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Discharge into the environment must be avoided. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Do not allow run-off from fire fighting to enter drains or water courses.

### 6.3 Methods for removal of spillage

Absorbed with inert adsorbent and treated as hazardous waste. Store in a suitable enclosed processing container.

## 7. HANDLING AND STORAGE

### 7.1 Handling

Use in a ventilated area.

The product is exposed to flammable methanol in water or moist air when used.

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

Don't get in your eyes.

Avoid skin contact.

Avoid breathing steam, mist, dust or smoke.

Keep container sealed.

Don't take it internally.

Remove contaminated clothing immediately.

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

Good fire protection measures.

### 7.2 Storage

Store in a cool place.

Containers should be kept tightly closed and stored in a dry and ventilated place.



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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Maximum allowable concentration

Ingredient name	CAS	Maximum allowable concentration
$\gamma$ - (Methacryloyl)propyltrimethoxy silane	2530-85-0	See methanol
Methanol	67-56-1	CHINA: TWA 25 mg/m <sup>3</sup> . STEL 50 mg/m <sup>3</sup> . Can be absorbed through the skin OSHA PEL (final rule): TWA 200 ppm, 260 mg/m <sup>3</sup> ACGIH TLV-skin: TWA 200ppm, STEL 250 ppm.

### 8.2 Engineering controls

The workplace is recommended to be separated from other workplaces. Closed operation to prevent leakage.  
Increase ventilation.  
Set up automatic alarm devices and accident ventilation facilities. Set up emergency evacuation routes and necessary escape areas.  
Set up red area warning lines, warning signs and Chinese warning instructions, and set up a communication alarm system.  
Provide safety shower and eyewash equipment.

### 8.3 Personal protection

Respiratory protection: gas mask. Based on local and government regulations. Hand protection: protective gloves.  
Eye protection: Safety goggles. If necessary, wear a mask.  
Skin and body protection: Protective clothing. If necessary, wear protective boots.

### 8.4 Environmental protection

Local ventilation recommended  
General ventilation recommended

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 General information

Physical state/form..... liquid  
Color..... colorless  
pH.....not determined  
Boiling point.....: 255°C at 760mmHg  
Melting point..... not determined



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Flash point.....	108°C
Upper explosion limit.....	no data available
Lower explosion limit.....	no data available
Vapor pressure.....	no data available
Vapor density.....	no data available
Density/relative density.....	1.045g/ml
Solubility.....	not miscible in water

## 10. STABILITY AND REACTIVITY

### 10.1 General information

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

**10.2 Chemical stability:** Sensitive to humidity.

### 10.3 Reactivity

Conditions to avoid: Incompatible materials, sources of ignition, excess heat, exposure to moist air.

Hazardous decomposition products: Carbon oxides and incompletely combusted carbon compounds, formaldehyde, silicon dioxide.

Dangerous Polymerization: Polymerization may occur in the presence of water, strong acids, and heat.

## 11. TOXICOLOGICAL INFORMATION

**11.1 Route of infection:** inhalation, skin contact and ingestion.

**11.2 Signs and symptoms of overexposure:**

Harmful if inhaled. May be harmful if swallowed. Causes serious eye damage. May cause skin irritation. May cause an allergic skin reaction.

**11.3 Acute toxicity**

Chemical name	CAS	LD50 (oral)	LD50 (percutaneous)	LC50 (inhalation)
$\gamma$ -(Methacryloxy)propyltrimethoxysilane	2530-85-0	>2000 mg/kg (rat)	>2000 mg/kg (rabbit)	> 2.28 mg/l (rat 4 h)

### Potential health effects

**Inhalation** May be harmful if inhaled. May cause respiratory irritation.

**Ingestion** Harmful if swallowed.

**Skin** May be harmful if absorbed through skin. May cause skin irritation.

**Eye** Causes eye irritation.

**11.4 Chronic toxicity**

Organosilicon compounds are generally low in toxicity



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## 11.5 Other health hazard information

This material may liberate methanol from contact with moisture or humid air. Excessive methanol can cause blindness and nervous system effects.

## 12. ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity:

Fish: LC50 > 1024 mg / l Test time: 96 hours Brachydanio rerio

Toxicity to daphnia and other aquatic invertebrates: EC50 876 mg / l Test time: 48 hours

Daphnia magna

Algae: EC50 536 mg / l Test time: 72 hours Scenedesmus subspicatus

### 12.2 Residual / degradable

This product hydrolyzes in water or humid air, releasing methanol and organic silicon compounds

### 12.3 Potential Bioaccumulation (BCF): No data available

### 12.4 Mobility in soil: no data available

### 12.5 Additional environmental information

Even in the case of professional handling or disposal, environmental hazards cannot be ruled out.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Products disposal

Properly dispose in accordance with local regulations.

### 13.2 Package disposal

Properly dispose in accordance with local regulations.

## 14. TRANSPORT INFORMATION

Dangerous goods category: None United

Nations number (UN No.): None Packing

group: None

Official shipping name:  $\gamma$ -(Methacryl oxyl)propyl tri methoxy silane

Chemical name:  $\gamma$ -(Methacryl oxyl)propyl tri methoxy silane

This product is not classified as dangerous by UN, IATA, IMDG

## 15. REGULATORY INFORMATION

**National and local regulations must be followed. Refer to the information in this document. "Regulations on the Safety Management of Dangerous Chemicals" (promulgated by the State Council on February 16, 2011): Corresponding regulations have been made for the safe use, production, storage, transportation, loading and unloading of dangerous chemicals.**



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### 16. OTHER INFORMATION

**Prepared by Hubei Bluesky New Material Inc.**

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The above information relates only to the specific materials designated herein and may not be valid for such materials used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.

**-End of Material Safety Data Sheet-**



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