



# Material Safety Data Sheet

Revision Date: 2019-08-01

**LT-550**

## 1. PRODUCT AND COMPANY IDENTIFICATION

### 1.1 Name of substance/preparation

Commercial product name: LT-550

Chemical name:  $\gamma$ -Amino propyl tri ethoxy silane

### 1.2 Use of substance/preparation

Relevant applications identified	For industrial use
Function	Coupling agent
	Crosslinking agents
	Surface modifier

### Company information

Manufacturer/distributor:

Telephone:

Fax:

E-mail:

Website:

### 1.3 Revision date

2019.08.01

## 2. HAZARDS IDENTIFICATION

### 2.1 Emergency overview

#### Labelling according Regulation (EC) No 1272/2008 [CLP]

Inflammable Liquid	Category 4
Acute toxicite, oral	Category 4
Skin corrosion	Category 1B
Skin sensitization	Category 1



#### Pictogram

#### Signal word

Danger

#### Hazard statement(s)

H227	Combustible liquid
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

#### Precautionary statement(s)

P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ eye protection/ face protection.



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## Reaction statement(s)

P301 + P330 + P331

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P302 + P352

IF ON SKIN: Wash with plenty of soap and water.

P304 + P340

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P310

Immediately call a POISON CENTER or doctor/ physician.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## Storage statement(s)

P405

Storage to be locked

## Waste disposal

P501

Disposal of contents / containers in accordance with local regulations

## 2.2 Other hazards

None known. Additional ethanol may be formed by reaction with moisture.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Chemical characterization (substance)

CAS No.	Chemical Name
919-30-2	$\gamma$ -Aminopropyltriethoxysilane

### 3.2 Ingredients

Chemical name	CAS No.	Concentration
$\gamma$ -Aminopropyltriethoxysilane	919-30-2	$\geq 95\%$
Ethanol	64-17-5	$\leq 5\%$

## 4. FIRST AID MEASURES

### 4.1 General information

Take persons to a safe place. Observe self-protection for first aid.

### 4.2 After inhalation

Move the exposed person to fresh air at once. Keep the patient calm. Protect against loss of body heat. If breathing stops, administer artificial respiration. Seek medical advice immediately and clearly identify substance.

### 4.3 After contact with the skin

Remove contaminated clothes at once. Wash off with plenty of water or water and soap immediately. In serious cases, use emergency shower immediately. Seek medical advice immediately and clearly identify substance.

### 4.4 After contact with the eyes



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Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15-30min while holding the eyelid(s) open. If contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Seek medical advice immediately and clearly identify substance. Continue to bathe eyes during transport to medical practitioner.

#### **4.5 After swallowing**

If conscious, give several small portions of water to drink. Do not induce vomiting. Seek medical advice immediately and clearly identify substance.

#### **4.6 Advice for the physician**

Rescuers are required to wear personal protective equipment such as rubber gloves and airtight goggles.

### **5. FIRE FIGHTING MEASURES**

#### **5.1 Suitable extinguishing media**

Water mist, extinguishing powder, alcohol-resistant foam, carbon dioxide, sand.

#### **5.2 Special risks**

Be careful, it may break down under burning or high temperature and produce toxic smoke.

#### **5.3 For fighting measures**

Depending on the local emergency plan, decide whether to evacuate or isolate the area. Cool the exposed container by water spray.

#### **5.4 Special protective equipment for fire fighting**

Wear personal protective equipment when extinguishing the fire.

### **6. ACCIDENTAL RELEASE MEASURES**

#### **6.1 Personal precautions**

Use personal protective equipment. prevent inhalation of steam, aerosols, or gases. Ensure adequate ventilation.

#### **6.2 Environmental precautions**

Prevent material from entering surface waters, drains or sewers and soil. Contain any fluid that runs out using suitable material. Retain contaminated water/extinguishing water.

#### **6.3 Methods for cleaning up**

Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations. Contain larger amounts and pump up into suitable containers. Clean any slippery coating that remains using a detergent/soap solution or another biodegradable cleaner.

### **7. HANDLING AND STORAGE**

#### **7.1 Handling**

Handle in well-ventilated place.

Wear suitable protective gear.

Prevent smoke.

Keep away from heat source / spark / open fire / hot surface.



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No smoking.  
take measures to prevent electrostatic accumulation.  
Use explosion-proof equipment.  
Wash hands and face thoroughly after handling.  
Do a good job of fire protection.

## 7.2 Storage

Store in a cool, well ventilated place. Keep container tightly closed.  
The opened container must be carefully re-sealed and maintained in a vertical position to prevent leakage.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Exposure limits

Component	CAS No.	Value
$\gamma$ -Aminopropyltriethoxysilane	919-30-2	No data available

### 8.2 Exposure limited and controlled

Workplaces are recommended to be separated from other workplaces.  
airtight operation to prevent leakage.  
Enhanced ventilation.  
Set up automatic alarm device and accident ventilation facilities.  
Set up emergency evacuation channel and necessary diarrhea risk area.  
Set up red area warning line, warning signs and Chinese warning instructions, and set up communication alarm system.  
Provide safe shower and eye washing equipment.

### 8.3 Personal protection

Respiratory protection: use gas mask. according to local and government regulations.  
Hand protection: use protective gloves.  
Eye protection: use safety protection mirror. Wear a mask if the situation requires.  
Skin and body protection: protective clothing. Wear protective boots if needed.

### 8.4 Environmental protection

Local ventilation            Recommendation  
Routine ventilation        Recommendation

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 General information

Physical state/form.....: liquid  
Colour.....: colourless to yellowish  
pH.....: 11,3 (500 g/l) (20 °C)  
Boiling point.....: 220°C(1013 hPa)  
Melting point.....: <-70°C  
Flash point.....: 80 - 90 °C (1013 hPa)



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Upper explosion limit.....: no data available  
Lower explosion limit.....: no data available  
Vapour pressure.....: no data available  
Vapour density.....: no data available  
Density/relative density.....: 0.95 g/cm<sup>3</sup>(25°C)  
Solubility.....: completely miscible in water  
Heat of combustion.....: no data available  
Viscosity(dynamic).....: no data available

## 9.2 Other information

Solubility in water: Hydrolytic decomposition occurs. Explosion limits for released ethanol: 3.5-15% (V).

## 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

Humidity sensitivity.

### 10.3 Reactivity

Materials to avoid:Oxidizing material can cause a reaction. Water, moisture, or humid air can cause hazardous methanol vapor to form.

Hazardous thermal decomposition:Burning can produce the following combustion products: carbon oxides, oxides of silicon, carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract.

Hazardous polymerization: In the face of water, strong acid, heat, may occur polymerization reaction.

## 11. TOXICOLOGICAL INFORMATION

**11.1 Way of infection:** inhalation, skin contact and miseating.

**11.2 Signs and symptoms of excessive exposure:**

If inhalation,it is harmful. If swallowing,it may be harmful. It causes severe eye damage,may cause skin allergies and may cause skin allergic reactions.

**11.3 Acute toxicity:**

chemical name	CAS no	Half lethal dose LD50 (through mouth)	Half lethal dose LD50 (through skin)	LC50 (swallowing)
$\gamma$ -Aminopropyltriethoxysilane	919-30-2	3500 mg/kg (mouse)	4000 mg/kg (rabbit)	--

Potential health implications

Inhalation may be harmful,may cause respiratory irritation.



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Ingestion is harmful to the human body.

Skin may be harmful if absorbed through the skin. may cause skin irritation.

The eyes cause eye irritation.

#### 11.4 Chronic toxicity

Silicone compounds are generally less toxic.

#### 11.5 Other health hazards information

This material may be released from methanol in contact with moisture or moist air. excessive methanol can lead to blindness and neurological effects.

Toxicity registration of chemicals: vv6770000

## 12. ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity

Species	Method	Exp. time	Result	Source
zebra fish (Brachydaniorerio)	acute	96 h	>934 mg/l (LC50)	literature
Daphnia magna	acute	48 h	331 mg/l (EC50)	literature
Pseudokirchneriella subcapitata	acute	72 h	603 mg/l (EC50)	literature

### 12.2 Residue/ Degradability

This product is hydrolyzed in water or moist air to release methanol and organosilicon compounds

**12.3 Potential bioaccumulation (BCF):** no data available

**12.4 Mobility in soil:** no data available

### 12.5 Additional information

According to current knowledge adverse effects on water purification plants are not expected.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Material

Dispose of according to regulations by incineration in a special waste incinerator. Observe local/state/federal regulations.

### 13.2 Unclean packaging

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations.

## 14. TRANSPORT INFORMATION

Valuation.....: Hazardous product

Class.....: 8

Packing group.....: II

UN-Number.....: 3267

Proper shipping name.....: Corrosive liquid, basic, organic, n.o.s.

Technical name.....:  $\gamma$ -Aminopropyltriethoxysilane

EMS.....: F-A; S-B



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## 15. REGULATORY INFORMATION

National and local regulations must be observed. label, see the information in this document. (Issued by the State Council on February 16, 2011):corresponding 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.**

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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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