

# SAFETY DATA SHEET

Date Updated:01.06.2013  
Version: 4.6  
Regulation REACH (EC 1907/2006) & CLP (EC 1272/2008)

**ONICHEM**  
Onichem Specialities  
www.onichem.com

## Organosilane AE301

### \*\*\*\* SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING \*\*\*\*

SDS Name: **Organosilane AE301**

Chemical Name: N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane, 97%

Synonym(s): N-(3-(trimethoxysilyl)propyl)ethylenediamine

IUPAC Name: N'-(3-trimethoxysilylpropyl)ethane-1,2-diamine

Company Identification: Dalian Onichem Co., Ltd.

No. 2 Gaoxin Street, Qixianling, Dalian 116023, P.R. China

Tel: 86-411-84794022, Fax: 86-411-84794077

For emergencies, call CHEMTREC 1-800-424-9300 or 1-202-483-7616

### \*\*\*\* SECTION 2 - HAZARDS IDENTIFICATION \*\*\*\*

#### EU-GHS Classifications

Classifications below according to Regulation (EU) No 1272/2008 on classification, labelling and packaging of Substances and Mixtures (CLP).

Skin sensitization	Category 1	H317
Eye damage/Eye irritation	Category 1	H318
Acute toxicity (inhalation)	Category 4	H332

#### GHS-Labeling:

Globally Harmonized System of Classification and Labelling (GHS)

Symbol(s):



Hazard Pictogram: GHS05, GHS07

Signal Word: Danger

Hazard Statement:	H317 H318 H332	May cause an allergic skin reaction. Causes serious eye damage. Harmful if inhaled.
Precautionary Statement:	P264 P271 P280  P305+P351+P338  P304+P340  P310  P273	Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing /eye protection/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Avoid release to the environment.

### \*\*\*\* SECTION 3 - COMPOSITION, INFORMATION ON INGREDIENTS \*\*\*\*

Ingredient (Chemical Name)	CAS#	EC#	Symbol(s)	R-phrase(s)	Hazard statements
N-(2-Aminoethyl)-3-aminopropyl trimethoxysilane,97%min.	1760-24-3	217-164-6	Xn Xi	R20 R41 R43	H332 H318 H317

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## \*\*\*\* SECTION 4 - FIRST AID MEASURES \*\*\*\*

**General information:** Take persons to a safe place. Observe self-protection for first aid. Before seeking medical attention remove contaminated clothing and shoes. Take a copy of the Safety Data Sheet when going for medical treatment.

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Protect unaffected eye. Immediate further treatment in ophthalmic hospital. Continue rinsing eye until arrival at ophthalmic hospital.

**Skin:** Flush skin with plenty of soap and water. Wash contaminated clothing before reuse. Get medical attention.

**Ingestion:** Never give fluids if patient is unconscious or having convulsions. Have patient drink plenty of water in small sips if conscious. Call a physician immediately.

**Inhalation:** Remove from exposure to fresh air. Call a physician immediately.

### **Indication of any immediate medical attention and special treatment needed:**

If required, therapy of irritative effect. Early endoscopy in order to assess mucosa lesions in the oesophagus and stomach which may appear. Aspirate leftover substance if necessary.

It is possible to detect Methanol in blood.

Antidote treatment: Ethanol. Treatment of allergic reaction if necessary

## \*\*\*\* SECTION 5 - FIRE FIGHTING MEASURES \*\*\*\*

**General Information:** Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan.

**Suitable extinguishing media:** Use Alcohol-resistant foam, dry chemical, or carbon dioxide.

**Further information:** Do not direct a solid stream of water or foam into hot, burning pools: this may cause frothing and increase fire intensity. Cool closed containers exposed to fire with water spray.

**Unusual Fire and Explosion Hazards:** Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

**Flash Point:** 138°C(280°F)

**Auto-ignition temperature:** 300°C(572°F)

**Explosion Limits,** Lower: N/A.

Upper: N/A.

**HMIS Classification**

**NFPA Rating**

Health	2	Health	2
Flammability	1	Fire	1
Physical hazard	1	Reactivity	1

**Advice for firefighters:** Water used to extinguish fire should not enter drainage systems, soil or stretches of water. Ensure there are sufficient retaining facilities for water used to extinguish fire. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulation

## \*\*\*\* SECTION 6 - ACCIDENTAL RELEASE MEASURES \*\*\*\*

**General Information:** Use proper personal protective equipment as indicated in Section 8. Keep out unprotected persons, ensure adequate ventilation.

**Spills/Leaks:** Absorb spill with inert material, (e.g., dry sand or earth), then place into a chemical waste container, to be disposed of in compliance with existing regulations.

**Environmental precautions:** Do not flush into surface water, sanitary sewer system

## \*\*\*\* SECTION 7 - HANDLING AND STORAGE \*\*\*\*

**Handling:** Provide good ventilation or extraction. Normal measures for preventive fire protection. Do not breathe vapor. Avoid skin and eye contact. Do not ingest. Do not empty into drains.

**Storage:** Keep containers tightly closed in a cool, dry, well-ventilated place.

Protect from moisture

## \*\*\*\* SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION \*\*\*\*

**Engineering Controls:** Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

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## Personal Protective Equipment (PPE)

Eyes: Wear safety glasses and chemical goggles if splashing is possible.

Skin: Wear appropriate protective gloves and clothing to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Respirators: Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

**Hygiene measures:** When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work. Remove contaminated or saturated clothing. Wash contaminated clothing before re-use.

**Protective measures:** Handle in accordance with good industrial hygiene and safety practices. If workplace exposure limits are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used. If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used. Do not breathe in vapors or aerosols. Avoid contact with skin and eyes

## \*\*\*\* SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES \*\*\*\*

Appearance: Clear to pale yellowish liquid.

Odor: Amine-like

pH: 10 (10g/l) @ 20°C

Vapor Pressure: <1 mm Hg @ 25°C

Vapor Density: > 1

Evaporation Rate: <1

Viscosity: Cas. 6 mPas @ 20°C

BP/BP Range: 259°C

Freezing/Melting Point: < -36°C

Decomposition Temperature: N/A.

Solubility: Not miscible, decomposition by hydrolysis.

Specific Gravity: 1.028 g/cm<sup>3</sup> @ 25°C

Molecular Formula: C<sub>8</sub>H<sub>22</sub>N<sub>2</sub>O<sub>3</sub>Si

Molecular Weight: 222.36

## \*\*\*\* SECTION 10 - STABILITY AND REACTIVITY \*\*\*\*

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Avoid contact with heat, sparks or open flame.

**Incompatibilities with Other Materials:** acids, water.

**Hazardous Decomposition Products:** Silica, Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde, Nitrogen products.

**Hazardous Polymerization:** Has not been reported

## \*\*\*\* SECTION 11 - TOXICOLOGICAL INFORMATION \*\*\*\*

Acute oral toxicity: LD<sub>50</sub> Rat: 2295 mg/kg

Acute inhalation toxicity: LC<sub>50</sub> Rat: 1.49 – 2.44mg/l/4h/vapor

Acute dermal toxicity: LD<sub>50</sub> Rabbit: >2000 mg/kg

Skin irritation: Rabbit, not irritating.

Eye irritation: Rabbit, highly irritative.

Sensitization: Magnusson&Kligman guinea pig: sensitizing.

Carcinogenicity: Not listed by ACGIH, IARC, NIOSH, NTP or OSHA

## \*\*\*\* SECTION 12 - ECOLOGICAL INFORMATION \*\*\*\*

Elimination information (persistence and degradability):

Biodegradability: Not readily biodegradable, 39% 28day

Ecotoxicity effects:

Toxicity to fish: LC<sub>50</sub> Brachydanio rerio 597 mg/l /96 h

LC<sub>0</sub> Brachydanio rerio 344 mg/l /96 h

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## \*\*\*\* SECTION 13 - DISPOSAL CONSIDERATIONS \*\*\*\*

Dispose of in a manner consistent with federal, state, and local regulations.

Do not reuse empty containers and dispose of in accordance with the regulation issued by the appropriate local authorities. If there is product residue in the emptied container, follow directions for handling on the container's label.

Incorrect disposal or reuse of this container is illegal and can be dangerous.

No waste key number as per the European Waste Typed List can be assigned to this product, since such classification is based on (as yet undetermined) use to which the product is put by the consumer.

The waste key number must be determined as per the European Waste Types List(EU Waste Types List 2000/532/EC) in cooperation with the disposal firm, producing firm or authority

## \*\*\*\* SECTION 14 - TRANSPORT INFORMATION \*\*\*\*

This product is not regulated as dangerous goods by DOT, IMDG, ADR/RID, IATA/ICAO

## \*\*\*\* SECTION 15 - REGULATORY INFORMATION \*\*\*\*

### European/International Regulations

European Labeling in Accordance with EC Directives

Statutory basis/list: According to Directive 67/548/EEC or 1999/45/EC

Hazard Symbols:	Xn	Harmful.
	Xi	Irritant.
	N	Dangerous for the environment.
Risk Phrases:	R20	Harmful by inhalation.
	R41	Risk of serious damage to eyes.
	R43	May cause sensitization by skin contact.
Safety Phrases:	S23.4	Do not breathe vapor.
	S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.

### Other international regulations:

Listed on or in accordance with the following inventories

AICS - Listed/registered

EINECS - Listed/registered

ENCS - Listed/registered

IECSC - Listed/registered

KECL - Listed/registered

DSL - Listed/registered

PICCS - Listed/registered

TSCA - Listed/registered

## \*\*\*\* SECTION 16 - ADDITIONAL INFORMATION \*\*\*\*

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we have been advised of the possibility of such damages