

MATERIAL SAFETY DATA SHEET

Date Updated: 29.06.2007
Version: 3.0
Regulation EC No. 1907/2006

ORGANOSILANE AE301****** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION *****

MSDS Name: Organosilane AE301

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

Company Identification: Dalian Onichem Co., Ltd.

218-220, 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 - COMPOSITION, INFORMATION ON INGREDIENTS ******

Ingredient	CAS#	Content
N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane	1760-24-3	97% min
Methanol	67-56-1	0.5% max
Ethylenediamine	107-15-3	0.5% max
others	N/A	2% max

****** SECTION 3 - HAZARDS IDENTIFICATION ******

EMERGENCY OVERVIEW: Moisture sensitive and can release methanol.

Eye: Vapors may cause immediate or delayed severe eye irritation. Liquid can cause severe conjunctivitis and corneal damage. This product slowly releases methanol.

Skin: May produce irritation or contact dermatitis which may be delayed several hours. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Ingestion: Not available.

Inhalation: Inhalation of vapors or particulates of aminoalkylsilanes will irritate the respiratory tract.

Overexposure may produce coughing, headache and nausea of breath and delayed lung edema.

Oral Toxicity - rat, LD50: 7460 mg/kg

Chronic: N/A

****** SECTION 4 - FIRST AID MEASURES ******

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical attention.

Skin: Flush skin with plenty of soap and water for at least 15 minutes

Ingestion: Never give fluids or induce vomiting if patient is unconscious or having convulsions. Get medical attention.

Inhalation: Remove from exposure to fresh air immediately. Get medical attention

Notes to Physician: This product reacts with water in the acid contents of the stomach to form methanol. The combination of visual disturbances, metabolic acidosis and formic acid in urine is evidence of methanol poisoning. The therapeutic intravenous administration of ethanol (10 mls/hour) allows methanol to be preferentially oxidized and reduces production of methanol metabolites. Acidosis must be treated with intravenous administration of sodium bicarbonate and methanol elimination may be increased by hemodialysis, as indicated. Treatment should be based on blood methanol levels and acid-base balance.

****** SECTION 5 - FIRE FIGHTING MEASURES ******

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Water spray, foam, carbon dioxide, dry chemical.

Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe fumes or inhale vapors.

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

Autoignition Temperature: N/A

MATERIAL SAFETY DATA SHEET

Date Updated: 29.06.2007

Version: 3.0

Regulation EC No. 1907/2006

Flash Point: 138 deg C (280 deg F)
NFPA Rating: Not published.
Explosion Limits, Lower: N/A, Upper: N/A

****** SECTION 6 - ACCIDENTAL RELEASE MEASURES ******

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Absorb spill with inert material, (e.g., dry sand or earth), then place into a chemical waste container.

****** SECTION 7 - HANDLING and STORAGE ******

Handling: Provide good ventilation or extraction.
Storage: Keep container closed.

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

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

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

Appearance: Clear to pale yellowish liquid
Odor: Mild amine (ammonia-like) odor.
PH: Not available.
Vapor Pressure: <1 mm Hg @ 25 deg C
Vapor Density (air=1): > 1
Evaporation Rate (butyl acetate =1): <1
Viscosity: 6 mPas @ 20 deg C
Boiling Point: 259 deg C @ 760 mm Hg
Freezing/Melting Point: < -36 deg C
Solubility: Reacts with water
Specific Gravity: 1.028 @ 25 deg C
Molecular Formula: C₈H₂₂N₂O₃Si
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: Reacts with water and moisture in air liberating methanol.
Avoid contact with peroxides, oxidizing agents, alcohols, acids.
Hazardous Decomposition Products: Organic acid vapors, methanol
Hazardous Polymerization: Has not been reported.

****** SECTION 11 - TOXICOLOGICAL INFORMATION ******

Oral Toxicity - rat, LD50: 7460 mg/kg
Carcinogenicity: Not listed by ACGIH, IARC, NIOSH, NTP or OSHA.

****** SECTION 12 - ECOLOGICAL INFORMATION ******

Ecotoxicity: N/A

MATERIAL SAFETY DATA SHEET

Date Updated: 29.06.2007

Version: 3.0

Regulation EC No. 1907/2006

****** SECTION 13 - DISPOSAL CONSIDERATIONS ******

Dispose of in a manner consistent with federal, state, and local regulations.
Not listed as a material banned from land disposal according to RCRA.

****** SECTION 14 - TRANSPORT INFORMATION ******

This product is not regulated by TDG, IMDG or ICAO.

****** SECTION 15 - REGULATORY INFORMATION ******

Labelling according to EC Directives

Statutory basis/list: According to Directive 67/548/EEC

Hazard Symbols:	Xi	Irritant
Risk Phrases:	R36/38	Irritating to eyes and skin.
	R43	May cause sensitization by skin contact.
Safety Phrases:	S24	Avoid contact with skin.
	S37/39	Wear suitable gloves and eye/face protection.

****** 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.