

MATERIAL SAFETY DATA SHEETDate Updated: 30.12.2003
Version: 2.1**ORGANOSILANE C302******** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION *****

MSDS Name: Organosilane C302

Chemical Name: 3-Chloropropyltriethoxysilane, 98%

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 ******

CAS#	Chemical Name,	%
5089-70-3	3-Chloropropyltriethoxysilane, >	98%
64-17-5	Ethanol,	< 1%

****** SECTION 3 - HAZARDS IDENTIFICATION ********EMERGENCY OVERVIEW**

Flammable. Irritant.

Flammable. Irritating to eyes, respiratory system and skin.

Target organ(s): Eyes. Skin.

HMIS RATING

HEALTH: 2*

FLAMMABILITY: 2

REACTIVITY: 1

NFPA RATING

HEALTH: 2

FLAMMABILITY: 2

REACTIVITY: 1

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

****** 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.

Skin: Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do NOT induce vomiting. Allow the victim to rinse his mouth and then to drink 2-4 cupfuls of water, and seek medical advice.

Inhalation: Remove from exposure to fresh air immediately.

Notes to Physician: Treat symptomatically and supportively.

****** 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:

Do NOT use water directly on fire. Use foam, dry chemical, or carbon dioxide.

Autoignition Temperature: N/A

Flash Point: 78 deg C (172 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.

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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: N/A.

Storage: Corrosives area.

****** 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

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 liquid

Odor: None reported.

pH: N/A.

Vapor Pressure: N/A

Vapor Density: N/A.

Evaporation Rate: N/A.

Viscosity: N/A.

Boiling Point: 102 deg C @ 10mm Hg

Freezing/Melting Point: N/A

Decomposition Temperature: N/A

Solubility: reacts with water

Specific Gravity/Density: 1.01g/cm³Molecular Formula: C₉H₂₁CLO₃Si

Molecular Weight: 240.80

****** SECTION 10 - STABILITY AND REACTIVITY ******

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Sensitive to moisture.

Incompatibilities with Other Materials: Strong oxidizing agents - moist air or water.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide, nitrogen.

Hazardous Polymerization: Has not been reported.

****** SECTION 11 - TOXICOLOGICAL INFORMATION ********ROUTE OF EXPOSURE**

Skin Contact: Causes skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: Causes eye irritation.

Inhalation: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

TARGET ORGAN(S) OR SYSTEM(S)

Eyes. Skin. Nerves.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been

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thoroughly investigated.

TOXICITY DATA

Oral

Rat

> 5,000 mg/kg

LD50

Skin

Rabbit

> 2,000 mg/kg

LD50

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

No data available.

ACUTE ECOTOXICITY TESTS

Test Type: LC50 Fish

Time: 96 h

Value: 80 mg/l

Test Type: EC50 Daphnia

Time: 48 h

Value: 140 mg/l

Test Type: IC0 Algae

Time: 72 h

Value: 273 mg/l

****** SECTION 13 - DISPOSAL CONSIDERATIONS ********APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION**

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

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

It is not regulated by DOT or IMDG.

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

EPA SARA Title III Chemical Listings

Section 302 Extremely Hazardous Substances (40 CFR 355): None.

Section 304 CERCLA Hazardous Substances (40 CFR 302): None.

Section 313 Toxic Chemicals (40 CFR 372): None present or none present in regulated quantities.

****** 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.