

SAFETY DATA SHEET

Date Updated: 01.10.2013
Version: EU 5.0
Regulation REACH (EC 1907/2006) & CLP (EC 1272/2008)

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Organosilane MTA

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

SDS Name: **Organosilane MTA**
Chemical Name: Methyltriacetoxysilane, 90%
Synonym(s): Triacetoxymethylsilane
IUPAC Name: [diacetyloxy(methyl)silyl]acetate

REACH Pre-registration number: 17-2119455079-XX-0000

Use of substance/preparation: Manufacture and on-site use, Coatings, Sealants, Polymer preparation, electronics, Laboratory Chemical.

Company Identification: Dalian Onichem Co., Ltd.
No. 2 Gaoxin Street, Qixianling, Dalian 116023, P.R. China
Tel: 86-411-84794022, Fax: 86-411-84794077
Information contact: MSDS@onichem.com
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).

Acute toxicity, oral	Category 4	H302
Skin corrosion/Irritation	Category 1	H314

GHS-Labeling:

Globally Harmonized System of Classification and Labelling (GHS)

Symbol(s):



Hazard Pictogram: GHS05, GHS07

Signal Word: Danger

Hazard Statement:	H302	Harmful if swallowed.
	H314	Causes severe skin burns and eye damage.

Precautionary Statement:	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in comfortable for breathing.
	P303+P361+P353	IF ON SKIN(or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Other Hazards A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required/has not been carried out

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

Ingredient (Chemical Name)	CAS#	EC#	Symbol(s)	R-phrase(s)	Hazard statements
Methyltriacetoxysilane, 90% min	4253-34-3	224-221-9	Xn C	R14 R22 R34	H302 H314

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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 with eye held open. Continue rinsing process with eye rinsing solution. Protect unaffected eye. Immediate further treatment in ophthalmic hospital. Continue rinsing eye until arrival at hospital.

Skin: Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing and shoes thoroughly before reuse. Consult a doctor.

Ingestion: If conscious, drink plenty of water. Call a physician immediately.

Inhalation: Remove from exposure to fresh air immediately. If respiratory problems, artificial respiration/oxygen. Get medical attention.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically and supportively

**** 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: 85°C (185°F)

Auto-ignition temperature: N/A.

Explosion Limits, Lower: N/A.

Upper: N/A.

HMIS Classification

NFPA Rating

Health 3

Health 3

Flammability 2

Fire 2

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. Take precautionary measures against static charges, keep away from sources of ignition. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid breathing mists or vapors. Wash hands after handling.

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

Protect from moisture

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

Control parameters

Methyltriacetoxysilane

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DNEL/DMEL values

END USE

Routes of exposure
Possible health damage
Value
Routes of exposure
Possible health damage
Value
Routes of exposure
Possible health damage
Value
Routes of exposure
Possible health damage
Value
Routes of exposure
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Routes of exposure
Possible health damage
Value

WORKER

Dermal
Acute – systemic effects
14.5 mg/kg bodyweight/day
Inhalation
Acute – systemic effects
25 mg/m³
Dermal
Long term – systemic effects
14.5 mg/kg bodyweight/day
Inhalation
Long term – systemic effects
25 mg/m³
Dermal
Acute - local effects
Medium hazard(no threshold derived)
Inhalation
Acute - local effects
31 mg/m³
Dermal
Long term - local effects
Medium hazard(no threshold derived)
Inhalation
Long term - local effects
31 mg/m³
Eyes
Local effects
Medium hazard(no threshold derived)

END USE

Routes of exposure
Possible health damage
Value
Routes of exposure
Possible health damage
Value
Routes of exposure
Possible health damage
Value
Routes of exposure
Possible health damage
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Routes of exposure
Possible health damage
Value

GENERAL POPULACE

Dermal
Acute – systemic effects
7.2 mg/kg bodyweight/day
Inhalation
Acute – systemic effects
6.3 mg/m³
Oral
Acute – systemic effects
1 mg/kg bodyweight/day
Dermal
Long term – systemic effects
7.2 mg/kg bodyweight/day
Inhalation
Long term – systemic effects
6.3 mg/m³
Oral
Long term – systemic effects
1 mg/kg bodyweight/day
Dermal
Acute - local effects
Medium hazard(no threshold derived)
Inhalation
Acute - local effects
5.1 mg/m³

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Routes of exposure	Dermal
Possible health damage	Long term - local effects
Value	Medium hazard(no threshold derived)
Routes of exposure	Inhalation
Possible health damage	Long term - local effects
Value	5.1 mg/m ³
Routes of exposure	Eyes
Possible health damage	Local effects
Value	Medium hazard(no threshold derived)

PNEC values	Value	Assessment factor
Fresh water:	1 mg/l	500
Marine water:	0.1 mg/l	5000
Water-intermittent releases	10 mg/l	50
Sediment(freshwater)	3.4 mg/kg(dry weight)	N/A
Sediment(marine water)	0.34 mg/kg(dry weight)	N/A
Soil	0.145 mg/kg(dry weight)	N/A
STP	>10 mg/l	10

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 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: Colorless to light yellowish liquid

Odor: Acetic acid

pH: N/A.

Vapor Pressure: 26 hPa @ 20°C

Vapor Density: N/A.

Evaporation Rate: N/A.

Viscosity: N/A.

BP/BP Range: 87°C @3 mm Hg

Freezing/Melting Point: 40---45°C

Decomposition Temperature: N/A.

Solubility: Reacts violently with water.

Specific Gravity/Density: 1.175 g/cm³ @ 25°C

Molecular Formula: C₇H₁₂O₆Si

Molecular Weight: 220.25

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

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Avoid heat, flames, sparks and other sources of ignition. Keep out of water supplies and sewers.

Materials to Avoid: Strong oxidizing agents, Strong acids, Strong bases.

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Silicon oxide under fire or very high heat condition.

Hazardous Polymerization: Has not been reported

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

Acute oral toxicity: LD50 Rat: 2,060 mg/kg

Skin irritation: Rabbit, severely irritating.

Eye irritation: Rabbit, severely irritating

Sensitization: N/A.

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

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

Toxicity to fish: LC50 Brachydanio rerio 251 mg/l/96h

Toxicity to other organisms: EC50 Daphnia magna 62 mg/l/48h

Toxicity to algae: EC50 Algae 73 mg/l/72h

**** 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, 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.

C Corrosive.

Risk Phrases: R14 Reacts violently with water.

R22 Harmful if swallowed.

R34 Causes burns.

Safety Phrases: S8 Keep container dry.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice(show the label where possible).

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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