

SAFETY DATA SHEET

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

ONICHEM
Onichem Specialities
www.onichem.com

Organosilane TPOS

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

SDS Name: **Organosilane TPOS**

Chemical Name: Tetrapropoxysilane, 98%min

Synonym(s): Tetrapropyl orthosilicate

IUPAC Name: Tetrapropyl silicate

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).

Not a hazardous material according to the Directive(EEC)No. 1272/2008

GHS-Labeling:

Statutory basis: Labelling not required according to EU-CLP Ordinance (1272/2008).

Classification as per Directive 67/548/EC or Directive 1999/45/EC.

On the basis of our data the product is not a hazardous substance as defined by the Chemicals Act or Hazardous Substance Ordinance in the currently valid versions.

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-phrases(s)	Hazard statements
Tetrapropoxysilane, 98% min.	682-01-9	211-659-0	N/A.	N/A.	N/A.

**** 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 and keeping eyelid open, in case of persistent discomfort, consult an ophthalmologist.

Skin: Flush skin with plenty of water.

Ingestion: If conscious, allow the victim to rinse his mouth. In case of discomfort or after absorbing large amounts of substance, supply with medical care.

Inhalation: Remove from exposure to fresh air.

Indication of any immediate medical attention and special treatment needed:

After absorbing large amounts of substance, administration of activated charcoal. Acceleration of gastrointestinal passage

**** 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 foam, water spray, 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.

Flash Point: 95°C (203°F)

Auto-ignition temperature: N/A.

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Explosion Limits, Lower: N/A

Upper: N/A.

HMIS Classification

NFPA Rating

Health 1

Health 1

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. Keep away from sources of ignition – No smoking. Take measures to prevent the build up of electrostatic charge.

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.

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-face piece airline respirator in the positive pressure mode with emergency escape provisions.

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

Protective measures: Handle in accordance with good industrial hygiene and safety practices. It should be defined in the work place in the form of a risk analysis according to directive 89/686/EEC and amendments.

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 and transparent liquid.

Odor: aromatic

pH: N/A.

Vapor Pressure: N/A.

Vapor Density (air=1): N/A.

Evaporation Rate: N/A.

Viscosity: 1 mPa.s @20°C

BP/BP Range: 225°C

Freezing/Melting Point: <-80°C

Decomposition Temperature: N/A.

Solubility: Not miscible, decomposition by hydrolysis.

Specific Gravity/Density: 0.916 g/cm³ @ 25°C

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Molecular Formula: (C₃H₇O)₄Si
Molecular Weight: 264.44

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

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Heat, flames, ignition sources.

Incompatibilities with Other Materials: Strong oxidizing agents - water, alkalis, mineral acids.

Hazardous Decomposition Products: Thermal decomposition produces oxides of carbon and silicon. Reaction with water or moisture, which under ambient conditions is slow and nonviolent, produces silicon dioxide and n-propanol. Propanol may form explosive concentrations. Reaction with oxidizing agents produces amorphous silica.

Hazardous Polymerization: Will not occur

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

Acute oral toxicity: LD₅₀ rat: >2000 mg/kg

Acute dermal toxicity: LD₅₀ rabbit: N/A.

Acute Inhalation toxicity: LC₅₀ rat(male): 10 mg/l/Aerosol LC₅₀ rat(female): >16.8 mg/l/Aerosol

Skin irritation: rabbit, not irritating.

Eye irritation: rabbit, not irritating.

Sensitization: Guinea pig, no sensitizing effects

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

There is no information available

**** 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

IMDG: For USA only: Packaging size more than 450l – COMBUSTIBLE LIQUID, N.O.S.(tetrapropyl orthosilicate), NA 1993, III.

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

European/International Regulations

No exposure or risk assessment is required for this product since it is not classified for health or environmental risks.

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

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**** SECTION 16 - OTHER 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