SAFETY DATA SHEET

According to JIS Z 7253:2012
Revision Date 25-Sep-2018
Version 2.01

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product name | Trimethyl(trifluoromethyl)silane
Product code | 353-29861,351-29862
CAS No | 81290-20-2
Formula | C4H9F3Si
Manufacturer | FUJIFILM Wako Pure Chemical Corporation
1-2 Doshomachi 3-Chome
Chuo-ku, Osaka 540-8605, Japan
Phone: +81-6-6203-3741
Fax: +81-6-6203-5964
Supplier | FUJIFILM Wako Pure Chemical Corporation
1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan
Phone: +81-6-6203-3741
Fax: +81-6-6203-2029
Emergency telephone number | +81-6-6203-3741 / +81-3-3270-8571
Recommended uses and restrictions on use | For research purposes
Announcement of company name change | Company name has changed since April 1, 2018. Former name was "Wako Pure Chemical Industries, Ltd."

Section 2: HAZARDS IDENTIFICATION

GHS classification
Classification of the substance or mixture
Flammable liquids | Category 2

Pictograms

Signal word | Danger
Hazard statements
H225 - Highly flammable liquid and vapor

Precautionary statements-(Prevention)
• Keep away from heat/sparks/open flames/hot surfaces. — No smoking
• Keep container tightly closed
• Ground/bond container and receiving equipment
• Use explosion-proof electrical/ventilating/lighting/equipment
• Use only non-sparking tools
• Take precautionary measures against static discharge
• Wear protective gloves/protective clothing/eye protection/face protection
Precautionary statements-(Response)
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary statements-(Storage)
- Store in a well-ventilated place. Keep cool

Precautionary statements-(Disposal)
- Dispose of contents/container to an approved waste disposal plant

Others
Other hazards Not available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture Substance

Formula C4H9F3Si

<table>
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<tr>
<th>Chemical Name</th>
<th>Weight-%</th>
<th>Molecular weight</th>
<th>ENCS</th>
<th>ISHL No.</th>
<th>CAS No.</th>
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<tr>
<td>(Trifluoromethyl)trimethylsilane</td>
<td>97</td>
<td>142.19</td>
<td>N/A</td>
<td>2-(3)-382</td>
<td>81290-20-2</td>
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</table>

Impurities and/or Additives : Not applicable

Section 4: FIRST AID MEASURES

Inhalation
- Remove to fresh air. If symptoms persist, call a physician.

Skin contact
- Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

Eye contact
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

Ingestion
- Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.
- Do not induce vomiting without medical advice.

Protection of first-aiders
- Use personal protective equipment as required.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media
- Water spray (fog), Carbon dioxide (CO2), Foam, Extinguishing powder, Sand

Unsuitable extinguishing media
- No information available

Special extinguishing method
- No information available

Specific hazards arising from the chemical product
- Thermal decomposition can lead to release of irritating and toxic gases and vapors. Vapors may form explosive mixture with air

Protection of fire-fighters
- Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Section 6: ACCIDENTAL RELEASE MEASURES
Personal precautions, protective equipment and emergency procedures
For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

Environmental precautions
To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for contaminant and methods and materials for cleaning up
Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

Recovery, neutralization
No information available

Secondary disaster prevention measures
Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: HANDLING AND STORAGE

Handling
Technical measures
Highly flammable. Avoid contact with high temperature objects, spark, and strong oxidizing agents. Use with local exhaust ventilation.

Precautions
Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

Safety handling precautions
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Storage
Safe storage conditions
Storage conditions
Keep container protect from light, store in well-ventilated place at room temperature (preferably cool). Keep container tightly closed. Packed with an inert gas.

Safe packaging material
Glass

Incompatible substances
Strong oxidizing agents

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls
In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

Exposure limits
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Personal protective equipment
Respiratory protection
gas mask for organic gas
Hand protection
Impermeable protective gloves
Eye protection
protective eyeglasses or chemical safety goggles
Skin and body protection
Long-sleeved work clothes

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES
### Section 10: STABILITY AND REACTIVITY

**Stability**

- **Stability**: May be altered by light.
- **Reactivity**: No data available

**Hazardous reactions**

- None under normal processing

**Conditions to avoid**

- Extremes of temperature and direct sunlight, Heat, flames and sparks, static electricity, spark

**Incompatible materials**

- Strong oxidizing agents

**Hazardous decomposition products**

- Carbon monooxide (CO), Carbon dioxide (CO2), Halides

### Section 11: TOXICOLOGICAL INFORMATION

**Acute toxicity**

- No data available

**Skin irritation/corrosion**

- No data available

**Serious eye damage/ irritation**

- No data available

**Respiratory or skin sensitization**

- No data available

**Reproductive cell mutagenicity**

- No data available

**Carcinogenicity**

- No data available

**Reproductive toxicity**

- No data available

**STOT-single exposure**

- No data available

**STOT-repeated exposure**

- No data available

**Aspiration hazard**

- No data available
Section 12: ECOLOGICAL INFORMATION

Ecotoxicity
No information available

Other data
No data available

Persistence and degradability
No information available

Bioaccumulative potential
No information available

Mobility in soil
No information available

Hazard to the ozone layer
No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste from residues
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated container and contaminated packaging
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14: TRANSPORT INFORMATION

ADR/RID

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<th>UN number</th>
<th>UN1993</th>
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<tr>
<td>Proper shipping name:</td>
<td>Flammable liquid, n.o.s. ((Trifluoromethyl)trimethylsilane)</td>
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<tr>
<td>UN classification</td>
<td>3</td>
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<tr>
<td>Subsidiary hazard class</td>
<td></td>
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<tr>
<td>Packing group</td>
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<tr>
<td>Marine pollutant</td>
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IMDG

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<tr>
<td>Subsidiary hazard class</td>
<td></td>
</tr>
<tr>
<td>Packing group</td>
<td>II</td>
</tr>
<tr>
<td>Marine pollutant (Sea)</td>
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<tr>
<td>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
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IATA

<table>
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<tr>
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<tr>
<td>Environmentally Hazardous Substance</td>
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Section 15: REGULATORY INFORMATION

International Inventories

| EINECS/ELINCS | - |
| TSCA          | - |

Japanese regulations

<table>
<thead>
<tr>
<th>International Inventories</th>
<th>EINECS/ELINCS</th>
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<tr>
<td></td>
<td>-</td>
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<tr>
<td>TSCA</td>
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</table>

Japanese regulations
Fire Service Act
Poisonous and Deleterious Substances Control Law
Industrial Safety and Health Act
Regulations for the carriage and storage of dangerous goods in ship
Civil Aeronautics Law
Pollutant Release and Transfer Register Law
Export Trade Control Order

| Category IV, Class I petroleum, dangerous grade 2 |
| Not applicable |
| Dangerous Substances - Flammable Substance (Enforcement Order Attached Table 1 Item 4) |
| Flammable Liquids (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1) |
| Flammable Liquids (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1) |
| Not applicable |
| Not applicable |

Section 16: OTHER INFORMATION

Key literature references and sources for data etc.
NITE: National Institute of Technology and Evaluation (JAPAN)
http://www.safe.nite.go.jp/japan/db.html
IATA dangerous Goods Regulations
RTECS-Registry of Toxic Effects of Chemical Substances
Japan Industrial Safety and Health Association GHS Model SDS
Dictionary of Synthetic Oraganic Chemistry, SSOCJ, Koudansha Scientific Co.Ltd.
Chemical Dictionary, Kyoritsu Publishing Co., Ltd.
etc

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
GHS Classification is according to JIS Z7252(2014). *JIS: Japanese Industrial Standards

Product information
You might get a product which indicates a former company name, during the period of transition.

End of Safety Data Sheet