

Material Safety Data Sheet
(1907/2006/EC)

WD Silicone Co., Ltd.

No.081 (WD-81)

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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product Name (3-Mercaptopropyl)triethoxysilane
Product No. 81
Brand WD
CAS No. 14814-09-6

1.2 Relevant identified uses of the substance or mixture and uses advised against
Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company WD Silicone Co., Ltd.
Maple Garden, Wuhan University
Wuhan, Hubei, China
Telephone +86-27-87215023
Fax +86-27-87214371
Email Address Sale@wdsilicone.cn

1.4 Emergency telephone number

Emergency telephone No. +8618971680837

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Skin irritation (Category 2)

Eye irritation (Category 2)

Specific target organ toxicity - single exposure (Category 3)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Irritating to eyes, respiratory system and skin.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



Signal word

Warning

Hazard statement(s)

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

Precautionary statement(s)

P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements

none

According to European Directive 67/548/EEC as amended

Hazard Symbol(s)



R-phrases(s)

R36/37/38

Irritating to eyes, respiratory system and skin.

S-phrases(s)

S26

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

S36

Wear suitable protective clothing.

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2.3 Other hazards This compound is capable of forming ethanol if hydrolyzed. Ethanol vapor may cause dizziness or suffocation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms 3-(Triethoxysilyl)-1-propanethiol
Linear Formula $C_9H_{22}O_3SSi$
Molecular Weight 238.42 g/mol

Component	CAS No.	EC No.	Concentration
(3-Mercaptopropyl)triethoxysilane	14814-09-6	238-883-1	-

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray or mist for large fires, and alcohol-resistant foam, dry chemical or carbon dioxide for small fires.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, sulfur oxides, silicon oxides

5.3 Precautions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Normal measures for preventive fire protection. Keep away from sources of ignition - No smoking. Take

measures to prevent the build up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a cool, dry and well-ventilated place. Containers which are opened must be carefully resealed. Store under inert gas.

7.3 Specific end uses

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values. However, ethanol will be produced if the product undergoes hydrolysis. The amount of ethanol produced depends on the level of hydrolysis reaction.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	: Colorless transparent liquid
Odour	: no data available
Odour Threshold	: no data available
pH	: no data available
Melting/freezing point	: no data available
Boiling point	: > 200 °C @ 101.3 kPa
Flash point	: 88 °C (closed cup)
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: no data available
Vapour density	: no data available
Relative density	: 0.98 g/ml @ 25 °C
Water solubility	: no data available
Autoignition temperature	: no data available
Decomposition temperature	: no data available
Viscosity	: no data available
Explosive properties	: no data available
Oxidizing properties	: no data available

9.2 Other safety information

no data available

10. STABILITY AND REACTIVITY

10.1 Chemical stability

Stable under recommended storage conditions.

10.2 Conditions to avoid

Heat, flames, sparks and humidity.

10.3 Materials to avoid

Strong oxidizing agents, strong acids or bases and moisture.

10.4 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions-carbon oxides, sulphur oxides, silicon oxides.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - rat - > 2000 mg/kg

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion

May be harmful if swallowed.

Skin

May be harmful if absorbed through skin. Causes skin irritation.

Eyes

Causes eye irritation.

Signs and Symptoms of Exposure

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

Additional Information

RTECS: TZ7760000.

Caution has to be taken when the component contact with water or moisture as it will release ethanol.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

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12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Hand it to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

	ADR/RID	IMDG	IATA
14.1 UN No.	-	-	3334
14.2 Proper shipping name	Not dangerous goods		Aviation regulated liquid, n.o.s. (3-(Triethoxysilyl)propanethiol)
14.3 Transport hazard class	-	-	9
14.4 Packaging group	-	-	-
14.5 Environmental hazards	no	(Marine pollutant) no	no
14.7 Further information	no data available.		

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

no data available

15.2 Chemical Safety Assessment

no data available

15.3 Other International Regulations

Listed on or in accordance with the following inventories:

- IECSC - China
- PICCS - Philippines
- ECL - Korea
- AICS - Australia
- TSCA - USA
- ENCS - Japan

16. OTHER INFORMATION

The above information does not purport to be all inclusive and shall be used only as a guide.