Material Safety Data Sheet WD-31

1. IDENTIFICATION OF SUBSTANCE AND SUPPLIER

Name On Label:3-Chloropropyltrimethoxysilane
Product Number:WD-31
Manufacturer/Supplier: Wuhan University Silicone New Material Co,Ltd.
Post/Physical Address: Wuhan University, Hubei, China
Telephone number:+86-27-87215023
Alternative names: CPTMO

2. COMPOSSITION AND INFORMATION ON COMPONENTS

Name: 3-Chloropropyltrimethoxysilane
Minor Impurities: Not Determined
CAS NUMBER: 2530-87-2
ENIECS NUMBER: 219-787-9

3. HAZARDS IDENTIFICATION

EC Class: flammable
EC Risk Phrase: R 36/37/38
EC Safety Phrase: S 26 36
RTECS: W2680000
UN (DOT): 1993
Beilstein/Gmelin: 969627
Beilstein Reference: 6-04
Canada DSL/NDSL
US TSCA listed
Australia AICS listed
New Zealand lised
Japan ENCS (MITI) listed
Korea ECL listed

4. FIST AID MEASURES

- **INHALATION**

Remove to fresh air. In cases of serious discomfort seek medical attenion.

- **Eye Contact**

Flush with copious amounts of water for at least 15 minutes. Seek urgent medical attention.

- **Ingestion**

Rinse out mouth and drink lots of water. In cases of tissue damage or other symptoms,seek medical attention.

5. FIRE FIGHTING MEASURES

Fire fighting: Wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Combustible Liquid. Extinguishing media: Use water spray to cool fire-exposed containers. Use agent most appropriate to extinguish fire. Do NOT get water inside containers. In case of fire use water spray, dry chemical, carbon dioxide, or appropriate foam.

Fire potential: HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.

Hazards: Vapors form explosive mixtures with air: indoors, outdoors, and sewers explosion hazards. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapors may travel to source of ignition and flash back. Substance will react with water (some violently) releasing flammable, toxic or corrosive gases and runoff.

Combustion products: Fire will produce irritating, corrosive and/or toxic gases.

6. ACCIDENTAL RELEASE MEASURES

- **Personal Protection**

Avoid inhalation or contact of spilled material with skin or clothing. Wear protective equipment including rubber gloves, and eye protection. Keep unprotected persons away.

- **Environmental Protection**

Take precautions to ensure product does not contaminate the ground or enter the drainage system.

- **Collection**

Mix with vermiculite or proprietary absorbent material and transfer to sealed containers for disposal.

7. HANDLING AND STORAGE

- **Handling**

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with heat, sparks and flame. Avoid ingestion and inhalation. Handle under an inert atmosphere. Store protected from air. Do not allow contact with water. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Keep from contact with moist air and steam.

- **Storage**

Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Do not expose to air. Store protected from moisture. Store under an inert

atmosphere.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

- **Respiratory**

Avoid inhalation of product. Handle in an efficient fume hood or equivalent system.

- **Eye**

Avoid eye contact. Wear safety spectacles, goggles or, for larger quantities, a full face mask.

- **Hands and Body**

Corrosive product. Avoid skin contact. Wear corrosive-resitant gloves and, for large quantities, full arm and body protection. Wash hands thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless liquid
Boiling Point:195℃
Molecular Formula:$C_6H_{15}ClO_3Si$
Formula Weight:198.72
Melting point: -50℃
Vapor pressure: 38mm/Hg (20℃)
Vapor density (air =1): 6.85
Density:1.077g/cm^3 (25℃)
Solubility in water: Slightly soluble
Refractive index: 1.42 (25℃)

10. STABILITY AND REACTIVITY

- **Specific Hazard**

Incompatibilities
Strong oxidising agents.

- **Decomposition**

Hazardous products of decomposition may include:
Carbon monoxide, carbon dioxide, oxides of chlorine.

11. TOXICOLOGICAL INFORMATION

HMIS:3-2-1-X
Acute Toxicity:
LD50:
Special Note:
Causes burns. Harmful by inhalation, in contact with skin and if swallowed. Material is extremely destructive to mucous membranes, upper respiratory tract, eyes and skin. Inhalation may be fatal. Symptoms may include burning sensation, coughing, wheezing, laryngitis, headache, nausea and vomiting.

12. ECOLOGICAL EFFECTS

General:
Take care to prevent chemicals from entering the ground, water courses or drainage systems.

13. DISPOSAL CONSIDERATIONS

Disposal:

Disposal should be via an approved contractor and should take full account of local regulations.

14. TRANSPORT INFORMATION

UN Number: 1993
Hazard class: 3
Packing Group: III
HS Code: 2931 9000 90

15. OTHER INFORMATION

It must be recognized that the physical and chemical properities of any product may not be fully understood and that new, possibly hazardous products may arise from reactions between chemicals. The information given in this data sheet is based on our present knowledge and shall not constitute a guarantee for any specific product.
Features and shall not establish a legally valid contractuial relationship.

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