SAFETY DATA SHEETS

According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS) - Sixth revised edition

Version: 1.0 Creation Date: Nov. 7, 2018 Revision Date: Nov. 7, 2018

1.	Identification				
ı. 1.1	GHS Product identifier				
1.1					
	Product name	CFS-254, Chloromethyltrichlorosilane			
1.2	Other means of identi	Other means of identification			
	Product number	CFS-254			
	Other names trichloro(chloromethyl)silane; Silane, trichloro(chloromethyl)-				
1.3	Recommended use of	the chemical and restrictions on use			
	Identified uses	Only for Industrial Use			
	Uses advised against	no data available			
1.4	Supplier's details				
	Company Address	Hubei Co-Formula Material Tech Co.,Ltd.			
	Address Telephone	C1420-1421, Longyang Avenue, Wuhan 430056, Hubei, China +86-27-84459282			
	Fax	+86-27-84459282			
1.5	Emergency phone nur	nber			
	Emergency phone number	+86-27-84459282			
	Service hours	Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).			
	Hazard identification				
2.	Hazard identification)n			
2. 2.1	Hazard identification Classification of the su				
		ubstance or mixture			
	Classification of the su Skin corrosion, Category 1B Acute toxicity - Inhalation, Ca	ubstance or mixture			
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	 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P363 Wash contaminated clothing before reuse. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 Immediately call a POISON CENTER/doctor/ P321 Specific treatment (see on this label). P305+P351+P338 IF IN EYES: Rinse cautiously with water for several
	minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P320 Specific treatment is urgent (see on this label).
Storage	P405 Store locked up. P403+P233 Store in a well-ventilated place. Keep container tightly closed.
Disposal	P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

2.3 Other hazards which do not result in classification

no data available

3. Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Trichloro(chloromethyl)silane	Chloromethyltrichlorosilane	1558-25-4	216-316-9	> 98%

4. First-aid measures

4.1 Description of necessary first-aid measures

General advice

Medical attention is required. Consult a doctor. Show this safety data sheet (SDS) to the doctor in attendance.

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

4.2 Most important symptoms/effects, acute and delayed

no data available

4.3 Indication of immediate medical attention and special treatment needed, if necessary

no data available

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

5.2 Specific hazards arising from the chemical

no data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. Handling and storage

7.1 Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

7.2 Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

no data available

8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. 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.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Thermal hazards

no data available

9. Physical and chemical properties

Physical state					
Colour	Colorless				
Odour	no data available				
Melting point/ freezing point no data available					
Boiling point or initial	117-118°C				
boiling point and boiling					
range					
Flammability	no data available				
Lower and upper explosion	no data available				
limit / flammability limit					
Flash point	69°C				
Auto-ignition temperature	no data available				
Decomposition temperature	no data available				
рН	no data available				
Kinematic viscosity	no data available				
Solubility	In water: slightly soluble				
Partition coefficient n-	no data available				
octanol/water					
Vapour pressure	20.7mmHg at 25°C				
Density and/or relative	1.47				
density					
Relative vapour density	no data available				
Particle characteristics	no data available				

10. Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

no data available

11. Toxicological information

Acute toxicity

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ 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

12. Ecological information

12.1 Toxicity

- Toxicity to fish: no data available
- Toxicity to daphnia and other aquatic invertebrates: no data available
- Toxicity to algae: no data available
- Toxicity to microorganisms: 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

12.5 Other adverse effects

no data available

13. Disposal considerations

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. **Transport information** 14.1 **UN Number** ADR/RID: UN3389 IMDG: UN3389 **IATA: UN3389** 14.2 **UN Proper Shipping Name** ADR/RID: TOXIC BY INHALATION LIQUID, CORROSIVE, N.O.S. with an LC50 lower than or equal to 200 ml/m3 and saturated vapour concentration greater than or equal to 500 LC50 IMDG: TOXIC BY INHALATION LIQUID, CORROSIVE, N.O.S. with an LC50 lower than or equal to 200 ml/m3 and saturated vapour concentration greater than or equal to 500 LC50 IATA: TOXIC BY INHALATION LIQUID, CORROSIVE, N.O.S. with an LC50 lower than or equal to 200 ml/m3 and saturated vapour concentration greater than or equal to 500 LC50 14.3 **Transport hazard class(es)** ADR/RID: 6.1 IMDG: 6.1 **IATA: 6.1** 14.4 Packing group, if applicable ADR/RID: I IATA: I IMDG: I **Environmental hazards** 14.5 ADR/RID: No IMDG: No IATA: No 14.6 **Special precautions for user**

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code no data available

15. **Regulatory information**

Safety, health and environmental regulations specific for the product in question 15.1

Chemical name	Common names and synonyms	CAS number	EC number
Trichloro(chloromethyl)silane	Chloromethyltrichlorosilane	1558-25-4	216-316-9
European Inventory of Ex (EINECS)	Not Listed.		
EC Inventory	Not Listed.		
United States Toxic Subst	Not Listed.		
China Catalog of Hazard	Not Listed.		
New Zealand Inventory o	Not Listed.		
Philippines Inventory of ((PICCS)	Not Listed.		
Vietnam National Chemie	Not Listed.		
Chinese Chemical Invento IECSC)	Not Listed.		

16. **Other information**

Information on revision

Creation Date

Nov. 7, 2018

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Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

- IPCS The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
- HSDB Hazardous Šubstances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- IARC International Agency for Research on Cancer, website: http://www.iarc.fr/
- eChemPortal The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
- CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
- ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
- ERG Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
- Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestisstoffdatenbank/index-2.jsp
- ECHA European Chemicals Agency, website: https://echa.europa.eu/

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.