## **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

		Revision Date: N	
1.	Identification		
1.1	<b>GHS Product identifi</b>	er	
	Product name	CFS-000, Octadecyltriethoxysilane	
1.2	1.2 Other means of identification		
	Product number Other names	CFS-000 triethoxy(octadecyl)silane;	
1.3	Recommended use of the chemical and restrictions on use		
	Identified uses Uses advised against	Only for Industrial Use no data available	
1.4	Supplier's details		
	Company Address Telephone Fax	Hubei Co-Formula Material Tech Co.,Ltd. C1420-1421, Longyang Avenue, Wuhan 430056, Hubei, China +86-27-84459282 +86-27-84459282	
1.5	Emergency phone number		
	Emergency phone number Service hours	+86-27-84459282 Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).	
2.	Hazard identification	D <b>n</b>	
2.1	Classification of the substance or mixture		
	Skin irritation, Category 2 Eye irritation, Category 2		
2.2	GHS label elements, including precautionary statements		
	Pictogram(s)		
	Signal word	Warning	
	Hazard statement(s)	H315 Causes skin irritation H319 Causes serious eye irritation	
	Precautionary statement(s) Prevention	P264 Wash thoroughly after handling.	

Prevention	P264 Wash thoroughly after handling.
	P280 Wear protective gloves/protective clothing/eye protection/face
	protection.
Response	P302+P352 IF ON SKIN: Wash with plenty of water/
	P321 Specific treatment (see on this label).
	P332+P313 If skin irritation occurs: Get medical advice/attention.
	P362+P364 Take off contaminated clothing and wash it before reuse.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention. none

Storage none Disposal none

## 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
Triethoxyoctadecylsilane	Octadecyltriethoxysilane	7399-00-0	230-995-9	> 96%

## 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	242°C(lit.)
Boiling point or initial	169°C/2mmHg(lit.)
boiling point and boiling	
range	
Flammability	no data available
Lower and upper explosion	no data available
limit / flammability limit	
Flash point	189°C(lit.)
Auto-ignition temperature	no data available
<b>Decomposition temperature</b>	no data available
рН	no data available
Kinematic viscosity	no data available
Solubility	no data available
Partition coefficient n-	no data available
octanol/water	
Vapour pressure	no data available
<b>Density and/or relative</b>	0.87
density	
<b>Relative vapour density</b>	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: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods.

## 14.2 UN Proper Shipping Name

ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods.

#### 14.3 **Transport hazard class(es)** ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. 14.4 Packing group, if applicable ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods. 14.5 **Environmental hazards** 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

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

Chemical name	Common names and synonyms	CAS number	EC number
Triethoxyoctadecylsilane	Octadecyltriethoxysilane	7399-00-0	230-995-9
European Inventory of Existing Commercial Chemical Substances (EINECS)			Not Listed.
EC Inventory			Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Not Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
New Zealand Inventory of Chemicals (NZIoC)			Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed.
Vietnam National Chemical Inventory			Not Listed.
Chinese Chemical Inv IECSC)	entory of Existing Chemical Subs	tances (China	Not Listed.

## **16.** Other information

#### Information on revision

<b>Creation Date</b>	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
- CÂMEO 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/

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