

## MATERIAL SAFETY DATA SHEET (MSDS) of SCA-K12M

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY		
1.1	<b>Production name:</b>	SCA-K12M SILANE
1.2	<b>Generic Description:</b>	Alkoxy silane
1.3	<b>Chemical name:</b>	n-Dodecyltrimethoxysilane
1.4	<b>NFPA Profile:</b>	Health: 1 Flammability: 2 Instability/Reactivity: 0
1.5	<b>IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY</b>	
	<b>Manufacturer:</b>	Nanjing Capatue Chemical Co., Ltd
	<b>Address:</b>	No. 20 JiangJun Avenue, Jiangning Development Zone, Nanjing, Jiangsu Province, P. R. China (211100)
	<b>Telephone:</b>	(+86-25)-86371193 Fax: (+86-25) 86371191-0
	<b>24Hour Emergency Telephone:</b>	(+86-25)-86371192
	<b>Connect with:</b>	Anhuanbu
1.6	<b>Use of the substance / Preparation</b>	For industry use
1.7	<b>Function</b>	Surface modifier, raw material.

2. HAZARDS IDENTIFICATION	
<b><u>Acute Effects</u></b>	
Eye: Direct contact may cause mild irritation.	
Skin: May cause mild irritation.	
Inhalation: Irritates respiratory passages very slightly.	
Oral: Swallowing large amounts may cause drowsiness.	
<b><u>Prolonged/Repeated Exposure Effects</u></b>	
Skin: Overexposure may injure internally if absorbed.	
Inhalation: No known applicable information.	
Oral: Overexposure by ingestion may injure the following organ(s): Nervous system. Brain. Thymus. Bladder. Spleen.	
<b><u>Signs and Symptoms of Overexposure</u></b>	
No known applicable information.	
<b><u>Medical Conditions Aggravated by Exposure</u></b>	
No known applicable information.	
The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or expert review of the product.	

3. COMPOSITION/INFORMATION ON INGREDIENTS	
<b><u>Information on ingredients / Hazardous components</u></b>	
n-Dodecyltrimethoxysilane	99 %

## MATERIAL SAFETY DATA SHEET (MSDS) of SCA-K12M

CAS No.	3069-21-4	EC No.	221-332-4
	Xn		
	R20, R38		
<b>Methanol</b>		1%	
CAS No.	67-56-1	EC No.	200-659-6
	F; R11		
	T; R23/24/25, R39/23/24/25		

See chapter 16 for text of risk phrases.

### 4. FIRST AID MEASURES

<b>4.1</b>	<b>General advice</b>	Take off all contaminated clothing immediately
<b>4.2</b>	<b>Eye:</b>	Keeping eyelid open, immediately rinse thoroughly for at least 5 minutes by using plenty of water or if necessary, eye rinsing solution. In case of persistent of discomfort: Consult and ophthalmologist.
<b>4.3</b>	<b>Skin:</b>	Wash off immediately with plenty of water. Consult a doctor in the event of permanent skin irritation.
<b>4.4</b>	<b>Inhalation:</b>	If aerosol or mists are formed: Move victims into fresh air. In case of persistent discomfort: Consult doctor immediately.
<b>4.5</b>	<b>Oral:</b>	Have the mouth rinsed with water. Consult a physician immediately.
<b>4.6</b>	<b>Notes to Physician:</b>	If required, therapy of irritative effect.  <b>After absorbing large amounts of substance:</b> Liberation of reaction products (Methanol) can lead to symptoms of poisoning. <b>Possible signs of poisoning:</b> daze, dizziness, nausea, colicky abdominal pain, respiratory disturbance. <b>Symptoms upon increasing intoxication:</b> dysopia, loss of eyesight. <b>Treatment:</b> Immediate gastric lavage. Antidote treatment, correction of acid-base balance. <b>Detection of substance (Methanol) possible in:</b> Blood. <b>Antidote treatment:</b> Ethanol.

### 5. FIRE FIGHTING MEASURES

<b>5.1</b>	<b>Flash Point:</b>	> 112 °C (Closed Cup)
<b>5.2</b>	<b>Auto ignition Temperature:</b>	Not determined.
<b>5.3</b>	<b>Flammability Limits in Air:</b>	Not determined.
<b>5.4</b>	<b>Suitable Extinguishing Media:</b>	Water spray, foam, CO2, dry powder.
<b>5.5</b>	<b>Unsuitable Extinguishing Media:</b>	High volume water jet.

[Http://www.capatue.com](http://www.capatue.com)    E-mail: [info@capatue.com](mailto:info@capatue.com)

Tel: 0086-25-86371192 86371193 86371194    Fax: 0086-25-86371191-0

Add: No. 20 JiangJun Avenue, Jiangning Development Zone, Nanjing, Jiangsu Province, P. R. China 211100

## MATERIAL SAFETY DATA SHEET (MSDS) of SCA-K12M

<b>5.6</b>	<b>Special protective equipment for fire-fighters:</b>	In case of fire: Wear a self contained respiratory apparatus.
------------	--------------------------------------------------------	---------------------------------------------------------------

### 6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions:**  
Use personal protective equipment.  
Ensure adequate ventilation.
- 6.2 Environment precautions:**  
Do not allow substance to enter soil, bodies of water or sewage canals.
- 6.3 Methods for cleaning up:**  
Soak up with inert absorbent material (e. g. sand, silica gel, acid binder, universal binder, sawdust).  
Fill into marked, sealable containers.  
To be disposed of in compliance with existing regulations.  
Suitable binder: Universal absorbent, sawdust, sand (for damming up).

### 7. HANDLING AND STORAGE

- 7.1 Handling**  
**Safe handling advice**  
Provide good ventilation or extraction.  
**Advice on protection against and explosion**  
Normal measures for preventive fire protection.  
Keep away from sources of ignition: No smoking.
- 7.2 Storage**  
**Requirements for storage areas and containers**  
Keep containers tightly closed in a cool, well-ventilated place.  
Protect from moisture.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Components with workplace control parameters**

**Methanol**

CAS No.	67-56-1	EC No.	200-659-6
Control parameters	200 ppm 260 mg/m <sup>3</sup>	Time Weighted Average (TWA): (EU ELV)	
Control parameters:		Skin designation: (EU ELV)	
	Can be absorbed through the skin.		

**Personal Protective Equipment for Routine Handling**

## MATERIAL SAFETY DATA SHEET (MSDS) of SCA-K12M

<b>Eyes:</b>	Use proper protection - safety glasses as a minimum.
<b>Skin:</b>	Wash at mealtime and end of shift. Contaminated clothing and shoes should be removed as soon as practical and thoroughly cleaned before reuse. Chemical protective gloves are recommended.
<b>Inhalation/Suitable Respirator:</b>	Respiratory protection recommended. Follow OSHA Respirator Regulations (29 CFR 1910.134) and use NIOSH/MHSA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
<b>Precautionary Measures:</b>	Avoid eye contact. Avoid skin contact. Do not breathe vapor. Keep container closed. Do not take internally. Use reasonable care.
<b>Comments:</b>	<p>Product evolves flammable methyl alcohol when exposed to water or humid air. Provide ventilation during use to control exposure within Section 8 guidelines or use air-supplied or self-contained breathing apparatus.</p> <p>When heated to temperatures above 150 degrees C in the presence of air, product can form formaldehyde vapors. Formaldehyde is a potential cancer hazard, a known skin and respiratory sensitizer, and an irritant to the eyes, nose, throat, skin, and digestive system. Safe handling conditions may be maintained by keeping vapor concentrations within the OSHA Permissible Exposure Limit for formaldehyde.</p>
<b>Note:</b>	These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding aerosol inhalation toxicity, please refer to the guidance document regarding the use of silicone-based materials in aerosol applications that has been developed by the silicone industry or contact the Capatue Chemical customer service group.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Characteristic
<b>Specific Gravity @ 20°C:</b>	0.89
<b>Viscosity @ 20°C:</b>	Not determined.
<b>Freezing/Melting Point:</b>	Not determined.
<b>Boiling Point:</b>	Not determined.
<b>Vapor Pressure @ 20°C:</b>	Not determined.
<b>Vapor Density:</b>	Not determined.
<b>Solubility in Water:</b>	Not determined.

[Http://www.capatue.com](http://www.capatue.com)    E-mail: [info@capatue.com](mailto:info@capatue.com)

Tel: 0086-25-86371192 86371193 86371194    Fax: 0086-25-86371191-0

Add: No. 20 JiangJun Avenue, Jiangning Development Zone, Nanjing, Jiangsu Province, P. R. China 211100

## MATERIAL SAFETY DATA SHEET (MSDS) of SCA-K12M

<b>pH:</b>	Not determined.
<b>Volatile Content:</b>	Not determined
<b>Flash Point :</b>	> 112 °C (Closed Cup)
<b>Auto ignition Temperature:</b>	Not determined.
<b>Flammability Limits in Air:</b>	Not determined.

**Note:** The above information is not intended for use in preparing product specifications. Contact Capatue Chemical before writing specifications.

### 10. STABILITY AND REACTIVITY

<b>10.1</b>	<b>Chemical Stability:</b>	Stable
<b>10.2</b>	<b>Hazardous Polymerization:</b>	Hazardous polymerization will not occur.
<b>10.3</b>	<b>Conditions to Avoid:</b>	None
<b>10.4</b>	<b>Materials to Avoid:</b>	Atmospheric humidity, water, alkalis, acids.
<b>10.5</b>	<b>Hazardous decomposition products:</b>	Methanol in case of hydrolysis.  Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde.

### 11. TOXICOLOGICAL INFORMATION

<b>Acute oral toxicity:</b>	LD50 rat: > 3500 mg/kg Method: OECD Test Guideline 401 Lit. (1)
<b>Acute inhalation toxicity:</b>	LC50 rat: 1.9 mg/l 4 h Method: OECD Test Guideline 403 of aerosols Lit. (1)
<b>Skin irritation:</b>	Rabbit irritating Method: OECD Test Guideline 404 Lit. (1)
<b>Eye irritation:</b>	Rabbit slightly irritating Method: OECD Test Guideline 405 Lit. (1)
<b>Gentoxicity in vitro</b>	No evidence of mutagenic effects.
<b>Further information</b>	Lit. (1) Own study.

[Http://www.capatue.com](http://www.capatue.com)    E-mail: [info@capatue.com](mailto:info@capatue.com)

Tel: 0086-25-86371192 86371193 86371194    Fax: 0086-25-86371191-0

Add: No. 20 JiangJun Avenue, Jiangning Development Zone, Nanjing, Jiangsu Province, P. R. China 211100

## MATERIAL SAFETY DATA SHEET (MSDS) of SCA-K12M

### 12. ECOLOGICAL INFORMATION

#### Environmental Fate and Distribution

Complete information is not yet available.

#### Environmental Effects

Complete information is not yet available.

#### Fate and Effects in Waste Water Treatment Plants

Complete information is not yet available.

### 13. DISPOSAL CONSIDERATIONS

With respect to local regulations, e.g. dispose of to suitable waste incineration plant.

No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer.

The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm / producing firm / official authority.

### 14. TRANSPORT INFORMATION

Transport / further information

Not classified as dangerous in the meaning of transport regulations.

### 15. REGULATORY INFORMATION

#### Labeling according to EC Directives

#### Statutory basis / list

<b>Symbol(s)</b>	Xn	Harmful
<b>R-phrases(s)</b>	R20	Harmful by inhalation.
	R38	Irritating to skin.
<b>S-phrases(s)</b>	S23	Do not breathe gas/fumes/vapor/spral.
	S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.

### 16. OTHER INFORMATION

Prepared by: Nanjing Capatue Chemical Co., Ltd

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

[Http://www.capatue.com](http://www.capatue.com)    E-mail: [info@capatue.com](mailto:info@capatue.com)

Tel: 0086-25-86371192 86371193 86371194    Fax: 0086-25-86371191-0

Add: No. 20 JiangJun Avenue, Jiangning Development Zone, Nanjing, Jiangsu Province, P. R. China 211100