MATERIAL SAFETY DATA SHEET (MSDS) of SCA-V71C

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

1.1	**Production**	SCA-V71C SILANE
1.2	**Generic Description:**	Alkoxysilane
1.3	**Profile:**	Health
1.4	**IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY**	
	Manufacturer:	Nanjing Capatue Chemical Co., Ltd
	Address：	No. 20 JiangJun Avenue, Jiangning Development Zone, Nanjing, Jiangsu Province, P. R. China P.C: 211100
	Telephone：	(0086-25)-86371193 Fax: (0086-25) 86371191
	24Hour Emergency Telephone:	(0086-25)-86371192
	Connect with:	Anhuanbu

2. HAZARDS IDENTIFICATION

Acute Effects

Eye: Direct contact may cause mild irritation.

Skin: May cause moderate irritation.

Inhalation: Vapor and/or mist may irritate respiratory tract. Vapor overexposure may cause drowsiness.

Oral: Overexposure by ingestion may cause drowsiness, dizziness, confusion or loss of coordination.

Prolonged/Repeated Exposure Effects

Skin: Overexposure may injure internally if absorbed.

Inhalation: Prolonged or repeated exposure by inhalation may injure internally.

Oral: Overexposure by ingestion may injure the following organ(s): Lymphoid tissue. Epididymides. Blood. Bone marrow. Testes.

Signs and Symptoms of Overexposure

No known applicable information.

Medical Conditions Aggravated by Exposure

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. Please refer to Section 11 for the detailed toxicology information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS Number	Wt %	Component Name
1067-53-4	> 98.0	Vinyltri(2-methoxyethoxy)silane
None	1.0~5.0	Impurities

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The above components are hazardous as defined in 29 CFR 1910.1200.

4. FIRST AID MEASURES

4.1	**Eye:**	Immediately flush with water for 15 minutes.
4.2	**Skin:**	Remove from skin and wash thoroughly with soap and water or waterless cleanser. Get medical attention if irritation or other ill effects develop or persist.
4.3	**Inhalation:**	Remove to fresh air. Get medical attention if ill effects persist.
4.4	**Oral:**	Get immediate medical attention.
4.5	**Notes to Physician:**	Treat according to person's condition and specifics of exposure.

5. FIRE FIGHTING MEASURES

5.1	**Flash Point:**	> 198 °F / > 92 °C (Closed Cup)
5.2	**Autoignition Temperature:**	Not determined.
5.3	**Flammability Limits in Air:**	Not determined.
5.4	**Extinguishing Media:**	On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide, dry chemical or water spray. Water can be used to cool fire exposed containers.
5.5	**Extinguishing Measures:**	Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.
5.6	**Unusual Fire Hazards:**	None

6. ACCIDENTAL RELEASE MEASURES

6.1 **Containment/Clean up:**

Determine whether to evacuate or isolate the area according to your local emergency plan. Observe all personal protection equipment recommendations described in Sections 5 and 8. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbant. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, state and federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which federal, state and local laws and regulations are applicable. Sections 13 and 15 of this MSDS provide information regarding certain federal and state requirements.

Note: See section 8 for Personal Protective Equipment for Spills. Call Capatue Chemical, if additional

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information is required.

7. HANDLING AND STORAGE

Use with adequate ventilation. Product evolves 2-methoxyethanol when exposed to water or humid air. Provide ventilation during use to control 2-methoxyethano exposure guideline or use respiratory protection. Avoid eye contact. Avoid skin contact. Do not breathe vapor. Keep container closed. Do not take internally.

Keep container closed and store away from water or moisture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

CAS Number	Component Name	Exposure Limits
1067-53-4	Vinyltri(2-methoxyethoxy)silane	See 2-methoxyethanol comments.
None	Impurities	See 2-methoxyethanol comments.

2-methoxyethanol forms on contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of ACGIH TLV-skin: TWA 0.1ppm.

Engineering Controls

Local Ventilation: Recommended.

General Ventilation: Recommended.

Personal Protective Equipment for Routine Handling

Eyes: Use proper protection - safety glasses as a minimum.

Skin: 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.

Inhalation/Suitable Respirator: 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.

Precautionary Measures: Avoid eye contact. Avoid skin contact. Avoid breathing vapor, mist, dust or fumes. Keep container closed. Do not take internally. Use reasonable care.

Comments: Product evolves flammable 2-methoxyethanol when exposed to water or humid air. Provide ventilation during use to control 2-methoxyethanol within exposure guidelines or use respiratory protection.

Note: 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

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developed by the silicone industry or contact the Capatue Chemical customer service group.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form:	Liquid
Color:	Colorless to transparent liquid
Odor:	Ester-like odor
Specific Gravity @ 20°C:	1.033
Viscosity:	1~2 cSt
Freezing/Melting Point:	Not determined.
Boiling Point:	>= 285.00 C
Vapor Pressure @ 25°C:	Not determined.
Vapor Density:	Not determined.
Solubility in Water:	Not determined.
pH:	Not determined.
Volatile Content:	Not determined
Flash Point :	> 198 °F / > 92 °C (Closed Cup)
Autoignition Temperature:	Not determined.
Flammability Limits in Air:	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

10.1	**Chemical Stability:**	Stable
10.2	**Hazardous**	Hazardous polymerization will not occur.
	Polymerization:	None
	Conditions to Avoid:	None
	Materials to Avoid:	Oxidizing material can cause a reaction. Water, moisture, or humid air can cause hazardous vapors to form as described in Section 8.

Hazardous Decomposition Products

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.

11. TOXICOLOGICAL INFORMATION

Component Toxicology Information

Vinyltri(2-methoxyethoxy)silane may evolve vapors of 2-methoxyethanol. Laboratory studies have shown high levels of 2-methoxyethanol have resulted in birth defects and adverse reproductive effects in animals.

Special Hazard Information on Components

Reproductive Effects

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CAS Number	Wt %	Component Name	
1067-53-4	> 98.0	Vinyltri(2-methoxyethoxy)silane	Evidence of reproductive effects in laboratory animals.

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.

Ecotoxicity Classification Criteria

Hazard Parameters (LC50 or EC50)	High	Medium	Low
Acute Aquatic Toxicity (mg/L)	<=1	>1 and <=100	>100
Acute Terrestrial Toxicity	<=100	>100 and <= 2000	>2000

This table is adapted from "Environmental Toxicology and Risk Assessment", ASTM STP 1179, p.34, 1993.

This table can be used to classify the ecotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.

13. DISPOSAL CONSIDERATIONS

RCRA Hazard Class (40 CFR 261)

When a decision is made to discard this material, as received, is it classified as a hazardous waste? No

State or local laws may impose additional regulatory requirements regarding disposal. Call Capatue Chemical, if additional information is required.

14. TRANSPORT INFORMATION

14.1	**DOT Road Shipment Information (49 CFR 172.101)**	Not subject to DOT.
14.2	**Ocean Shipment (IMDG)**	Not subject to IMDG code.
14.3	**Air Shipment (IATA)**	Not subject to IATA regulations.

Call Capatue Chemical if additional information is required.

15. REGULATORY INFORMATION

Contents of this MSDS comply with OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA Status: : All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

EPA SARA Title III Chemical Listings

Section 302 Extremely Hazardous Substances (40 CFR 355):

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None.

Section 304 CERCLA Hazardous Substances (40 CFR 302):

None.

Section 311/312 Hazard Class (40 CFR 370):

Acute: Yes

Chronic : Yes

Fire: No

Pressure: No

Reactive: No

Section 313 Toxic Chemicals (40 CFR 372):

None present or none present in regulated quantities.

Note: Chemicals are listed under the 313 Toxic Chemicals section only if they meet or exceed a reporting threshold.

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.