

# **Technical Data Sheet**

# Capatue<sup>TM</sup> SCA-K01M

#### Abstract

**SCA-KO1M** is a monomeric alkylalkoxysilane with the shortest alkyl group that, when exposed to moisture, is an important component in sol-gel systems.

SCA-K01M is a colorless, low-viscosity liquid. Use requires acid- or alkali-catalysed hydrolysis. SCA-K01M is regarded as trifunctional since all three alkoxy groups are able to participate in this reaction. Additionally SCA-K01M contains a methyl group that adds organic character to the products. Hydrolysis leads to silanol groups which, in a subsequent condensation reaction, form very stable siloxane bonds (-Si-O-Si-).

#### **Chemical Name**

Methyltrimethoxysilane

#### **Synonyms**

Trimethoxy(methyl)silane

CAS Registry Number	EINECS
1185-55-3	214-685-0

Molecular Formula	Molecular Structure
C <sub>4</sub> H <sub>12</sub> O <sub>3</sub> Si	0 -si-0

## **Molecular Weight**

136.22

## **Equivalents**

Product	Supplier	
Silquest <sup>®</sup> A-1630	Momentive (formerly OSi Specialties)	
Z-6070	Dow Corning	
MTMS	Evonik (formerly Degussa)	



M1-Trimethoxy	Wacker	
KBM-13	Shin-Etsu	

#### **Typical Properties**

Index	Value
Appearance	Colorless, transparent liquid
GC Purity, %	≥99.0%
Specific Gravity (p <sub>20</sub> ), g/cm <sup>3</sup>	0.950 ~ 0.995
Boiling Point (760mmHg), ℃	103℃
Solubility	Alcohol and aromatic and aliphatic hydrocarbons, mineral spirits.

#### **Applications and Performance**

- 1. High-Performance Penetrating Sealers: Premium-grade penetrating sealers are easily formulated by blending 10 to 40 percent SCA-K01M in alcohols or organic solvents.
- 2. Sol-Gel system: It is an important component in Sol-Gel system.
- 3. Filler Dispersion: SCA-K01M can be used as a surface modifier to generate hydrophobicity (e.g. mineral fillers or inorganic pigments). The medium-chain alkyl functionality in unique compound properties when SCA-K01M treated minerals or pigments are incorporated into polymers e.g. PP, PE. Loading levels of 0.5 to 1.5 wt% SCA-K01M based on the weight of minerals or pigments are typically recommended.

#### **Packing**

The regular packing of this product is 25kg plastic pail, 200L steel drums and 1000L immediate bulk container.

#### Storage and Shelf Life

Should be stored in dry, cool, ventilated room; keep away from water, moisture, high temperature and fire. This product has a shelf life of at least 12 months if stored in tightly closed original container at room temperature.

If this product is kept beyond the shelf life recommend on the product label, it is not



necessarily unusable, but a quality control should be performed on the properties relevant to the application.

#### **Product Safety and Handling**

When considering the use of any Capatue products in a particular application, you should read our latest Material Safety Data Sheets (MSDS) thoroughly for handling instructions, personal protective equipment if necessary, other safety issue and toxicological data as well as for information on proper transportation, storage and use to ensure that the use you intend can be accomplished safely. Our latest Material Safety Data Sheets (MSDS) and other product safety information are available at <a href="https://www.capatue.com">www.capatue.com</a> or upon request, from our customer service department.

Use of other material in conjunction with Capatue products may require addition precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

This product is for industry use only; it is neither tested nor represented as suitable for food, medical or pharmaceutical uses.

## **Limited Warranty Information**

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Capatue's products are safe, effective, and fully satisfactory for the intended end use.

Suggestions of use shall not be taken as inducements to infringe any patent.

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Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

Capatue specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability.

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