

Technical Data Sheet

Capatue™ SCA-K12M

Abstract

SCA-K12M is a monomeric alkylalkoxysilane that, when exposed to moisture, is reactive with the minerals. The monomer can penetrate deeply into a substrate, and then react to form a protective surface surrounding each microscopic particle. This protective surface is extremely durable and leads to significant improvements in weather resistance. The silane is easy to dissolve in organic solvents to form clear, colorless, stable solutions.

Chemical Name

Dodecyltrimethoxysilane

Synonyms

1-(Trimethoxysilyl)dodecane

CAS Registry Number

3069-21-4

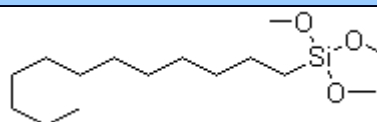
EINECS

221-332-4

Molecular Formula

$C_{15}H_{34}O_3Si$

Molecular Structure



Molecular Weight

290.52

Equivalents

| Product | Supplier |
|-----------|-----------|
| KBM-3103C | Shin-Etsu |

Typical Properties

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| Index | Value |
|---|---|
| Appearance | Colorless, transparent liquid |
| Specific Gravity (ρ_{20}), g/cm ³ | 0.89 |
| Refractive Index (n_D^{25}) | 1.427 |
| 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-K12M in alcohols or organic solvents.
2. Long-Lasting Wear Protection: Water repellency that lasts years on surface of highway bridge decks has been documented with alkyalkoxysilanes.
3. Filler Dispersion: SCA-K12M 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-K12M treated minerals or pigments are incorporated into polymers e.g. PP, PE. Loading levels of 0.5 to 1.5 wt% SCA-K12M 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 18 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

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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 www.capatue.com 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.

Capatue's sole warranty is that the product will meet the Capatue sales specifications in effect at the time of shipment.

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.

Capatue disclaims liability for any incidental or consequential damages.

Customer must do enough tests before their regular production to ensure that our product is suitable for their specific application.