

Silquest^{*} A-137 Silane

$\text{CH}_3(\text{CH}_2)_7\text{Si}(\text{OCH}_2\text{CH}_3)_3$

Product Description

Silquest A-137 silane is a monomeric alkylalkoxysilane that, when exposed to moisture, is reactive with the minerals contained in concrete, masonry and other substrates. 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 easily dissolved in organic solvents to form clear, colorless, stable solutions.

Typical Physical Properties

Physical Form	Water-white to straw-colored liquid
Active Material Content, % min	95
Viscosity at 25°C, cSt	2.1
Useful Storage Life, months	12
Diluents	Aromatic or aliphatic hydrocarbons, alcohols, mineral spirits
Flash Point, PMCC, °C (°F)	82 (180)
Specific Gravity	0.88
Color, Pt/Co	100

Momentive Performance Materials provides versatile materials as the starting point for our creative approach to ideas that help enable new developments across hundreds of industrial and consumer applications. We are helping customers

solve product, process, and performance problems; our silanes, fluids, elastomers, sealants, resins, adhesives, urethane additives, and other specialty products are delivering innovation in everything from car engines to biomedical devices.

From helping to develop safer tires and keeping electronics cooler, to improving the feel of lipstick and ensuring the reliability of adhesives, our technologies and enabling solutions are at the frontline of innovation.



Key Features and Typical Benefits

High-Performance Penetrating Sealers	Premium-grade penetrating sealers are easily formulated by blending 10 to 40 percent Silquest A-137 silane in alcohols or organic solvents. Penetrating sealers formulated with this product can exceed the most stringent test requirements specified for traffic-bearing surfaces by government and parking structure designers when tested in accordance with: NCHRP-244 Series II and III NCHRP-244 Series IV Southern Climate Exposure ASTM C-672 Deicer Scaling AASHTO T-259/260 Salt Ponding.
Long-Lasting Wear Protection	Water repellency that lasts for years on surfaces of highway bridge decks has been documented with alkyalkoxysilanes. Reinforced concrete structures can be protected from water and waterborne salt that normally cause corrosion of reinforcing steel, deterioration and weathering. Normal abrasion resistance, surface appearance and most other desirable properties remain unchanged with Silquest A-137 silane.
Breathable, Stain-Resistant Surfaces	Water-repellent surfaces created by the use of formulations containing this silane retain normal vapor transmission. Reduced efflorescence and staining are provided with the deep-penetrating solutions of Silquest A-137 silane.

Potential Applications

Penetrating sealers containing Silquest A-137 silane can provide excellent protection for bricks, stone, masonry, wood and other substrates. Surfaces can be put into service within a few minutes. The performance of many existing water-repellent, sealer, stain and coating formulations can also be enhanced by the addition of Silquest A-137 silane and/or other Silquest silanes.

The dispersibility and compatibility of filler and pigment particles in coating and sealant formulations can be improved by adding Silquest A-137 silane to the coating formulation, or by using it as a pre-treatment for the pigments. The particulate surface is made more hydrophobic and organic-like. Consequently, it becomes more compatible with typical coating, adhesive and sealant vehicles.

Industry Standards

Penetrating sealers based on Silquest A-137 silane have been approved for use on highways and bridges; parking structures; runways and airports; water ways; cooling towers; and marine, offshore, and coastal structures exposed to salt spray. The table below shows test results obtained with Silquest A-137 silane formulations that exceed NCHRP-244 test requirements often specified by government and parking structure designers.

NCHRP-244 Series II Test Results⁽¹⁾

	20% Silquest A-137 Silane	
	In Mineral Spirits	In Isopropanol
Weight-gain Reduction, %	>80	>84
Chloride Ion Reduction, %	>82	>86
Average Depth of Penetration, in	0.12 to 0.20	0.12 to 0.20

(1) Test results presented are only to be used as indicators of whether a product met, or did not meet, certain performance criteria. The results do not constitute a representation or warranty as to the safety or efficacy of a product or its fitness for a particular purpose or use.

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Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers considering the use of this product should review the latest Material Safety Data Sheet and label for product safety information, handling instructions, personal protective equipment if necessary, and any special storage conditions required. Material Safety Data Sheets are available at www.momentive.com or, upon request, from any Momentive Performance Materials representative. Use of other materials in conjunction with Momentive Performance Materials products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

Emergency Service

Momentive Performance Materials maintains an around-the-clock emergency service for its products. The American Chemistry Council (CHEMTREC), Transport Canada (CANUTEC), and the Chemical Emergency Agency Service also maintain an around-the-clock emergency service for all chemical products:

Location	Momentive Performance Materials Products	All Chemical Products
Mainland U.S., Puerto Rico	518.233.2500	CHEMTREC: 800.424.9300
Alaska, Hawaii	518.233.2500	CHEMTREC: 800.424.9300
Canada	518.233.2500	CANUTEC: 613.996.6666 (collect) or CHEMTREC: 800.424.9300
Europe, Middle East, Africa	+32.(0)14.58.45.45 (Belgium)	CHEMTREC: +1-703.527.3887 (collect)
Latin America, Asia/Pacific, all other locations worldwide	+518.233.2500	CHEMTREC: +1-703.527.3887 (collect)
At sea	Radio U.S. Coast Guard, which can directly contact Momentive Performance Materials at 518.233.2500 or CHEMTREC at 800.424.9300.	

DO NOT WAIT. Phone if in doubt. You will be referred to a specialist for advice.

Principal Locations

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Europe, Middle East, Africa and India		
Leverkusen Germany	00.800.4321.1000 + 31.164.293.276	+ 31.164.241750
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	RTV Products-Elastomers 800.332.3390	304.746.1623
	Sealants and Adhesives and Construction 877.943.7325	304.746.1654
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