Technical Data Sheet

Silquest* A-151NT

Description

Silquest A-151NT silane offers vinyl and silane functionality, making them suitable for crosslinking organic polymers. Similarly, Silquest A-151NT silane is useful as a crosslinker in systems where greater elongation is required. It is also recommended for chain extension of RTV silicones or other silane or OH functional polymers. The resulting Si-O-Si crosslink sites are highly resistant to exposure to moisture, chemicals and UV. Siloxane crosslinks tend to not generate color and are resistant to environmental factors, such as acid rain.

Key Features and Benefits

Feature	Benefit
Vinyl Functionality	• Vinyl functionality allows free radical addition to polymers. • Vinyl functionality increases the rate of silane hydrolysis.
Triethoxy Silane Functionality	• Bonds to inorganic substrates to provide excellent wet and dry adhesion. • Fast hydrolysis rate. • Functions as a crosslinker.

Typical Physical Properties

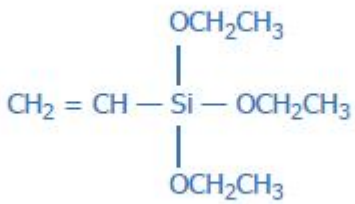
	Silquest A-151NT Silane
Appearance	Colorless to Light Straw
Specific Gravity at 25/25°C	0.91
Refractive Index n_D 25°C	1.397
Flash Point, Tag Closed Cup, °C (°F)	44 (111)
Boiling Point, °C (°F)	160.5 (321)

Solubility

Momentive Performance Materials family of vinyl Silquest silanes are soluble in water after they have been hydrolyzed. Hydrolyzing Silquest A-151NT silane in water is aided by adjusting the pH of the water to 5.0-5.5 with acetic acid prior to adding the silane.

Chemical Structure

Silquest A-151 Silane



Vinyltriethoxy Silane

Potential Applications

Crosslinking with the Momentive Performance Materials family of vinyl Silquest silanes Silquest A-151NT silane is monomeric vinyl functional silanes in vinyl, vinyl acrylic and acrylic resins. The vinyl silanes can be added as monomers during emulsion poly merization to form silane modified latexes. The silanes in such latexes function as crosslinkers, forming very stable Si-O-Si linkages.

Vinyl silanes can also be grafted to select unsaturated polymers such as polyethylene, polyester, and styrene-butadiene co-polymers, via free radical chemistry. Once grafted

to the resin, the resin exhibits silane functionality through which the resin can be crosslinked via an ambient moisture cure mechanism. This approach can be utilized to provide improved high temperature resistance, tensile and tear strengths to thermoplastic resin-based materials.

With the addition of an adhesion promoting silane, such as Silquest A-1110 silane or Silquest A-1120 silane, excellent adhesion to a wide array of substrates can be obtained (Note: See literature on SPUR* prepolymer-based technology for additional information on synergistic use of Silquest silane crosslinkers and adhesion promoters for excellent adhesion to difficult substrates). This approach may be suitable to warm applied hot melt adhesive and sealant applications.

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 should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

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Contact Information

For product prices, availability, or order placement, contact our customer service at Momentive.com/CustomerService/

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