



# HARWICK

## STANDARD

ISO 9001-2015 REGISTERED

## Technical Data Sheet

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### Standard One™ HS-172 Silane

Standard One HS-172 Silane, is a bifunctional organosilane possessing a reactive vinyl group and a hydrolyzable inorganic trimethoxyethoxysilyl group. The dual nature of its reactivity allows Standard One HS-172 Silane to bind chemically to both inorganic materials (e.g. glass, metals, fillers) and organic polymers (e.g. thermosets, thermoplastics, elastomers), thus functioning as a crosslinking agent, adhesion promoter and/or surface modifier. Standard One HS-172 Silane is a colorless or light yellow, low-viscosity liquid with a typical aromatic odor.

*Applications:* 1) It is used as an efficient adhesion promoter for various mineral-filled polymers, improving mechanical and electrical properties, especially after exposure to moisture. 2) It is used as a modifier of polymer dispersions (e.g. styrene acrylics), after modification the dispersions show improved adhesion strength in wet conditions and wet scrub resistance.

*Reactivity:* 1) In the presence of moisture the methoxyethoxy groups of Standard One HS-172 Silane hydrolyze to produce methanol and reactive silanol(Si-OH) groups which can bond to a variety of inorganic substrates or react with each other to form siloxane bonds(Si-O-Si). 2) The organophilic vinyl end of Standard One HS-172 Silane can also react with a suitable polymer initiated by a peroxide.

### TYPICAL PROPERTIES

Chemical Nature	Vinyl[tris-(2-methoxyethoxy)silane]
Appearance	Colorless or light yellow liquid
Purity,%	98
Density @ 20°C	1.04
Boiling Point, °C/mmHg	285
Flash Point, °C	92
Refractive Index	1.424
Specific Gravity	1.04

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