



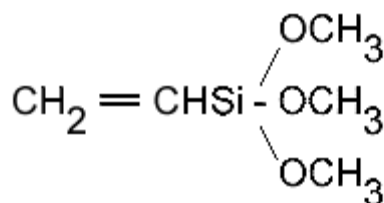
ADVANCED POLYMER, INC.

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AP-SILANE 21

AP-SILANE 21 is a vinyltrimethoxy silane coupling agent. AP-SILANE 21 has both organic and inorganic reactivity. Its unique functionality enables AP-SILANE 21 to provide increased strength and adhesion in a variety of applications.

CHEMICAL STRUCTURE



CHARACTERISTICS

- Improved adhesion.
- Increased composite wet and dry tensile and modulus.
- Increased flexural strength.
- Increased wet and dry compressive strength.

APPLICATION

AP-SILANE 21 is recommended for crosslinking Polyethylene.

PACKAGING

AP-SILANE 21 is available in 4 oz. samples and 441-lb. drums.

Advanced Polymer, Inc.

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I want to know more!

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TYPICAL PROPERTIES

Appearance:	Clear liquid
Ionic Nature:	Nonionic
Molecular Weight:	148.2
Specific Gravity (@ 25°C):	0.97
Purity:	>98.0%
Refractive Index (@ 25°C):	1.391
Minimum Coverage Area:	526 m ² /g

You may also be interested in . . .

- AP-SILANE 21

Revised October 27, 2009

AP-SILANE 21

Section I Product Identity

Product Name: AP-SILANE 21
Chemical Name/Family: Vinyl Trimethoxy Silane
CAS Registry: # 2768-02-7
24 Hour Emergency Number 800-424-9300
24 Hour Chemtrec Number 800-424-9300
All ingredients are listed in EPA's TSCA list of chemical substances

Section II Hazardous Components/Composition Information

CHEMICAL Vinyl Trimethoxy Silane (Irritant)
CAS # 2768-02-7
USOS
TWA
STEL
PERCENT >98

Section III Physical and Chemical Properties

Boiling Point N.A.
Specific Gravity (H₂O=1) 0.97
Vapor Pressure <10
Vapor Density (Air=1) 7.7
Percent Volatile By Weight 100%
Evaporation Rate (BuAc=1) <1
Solubility in Water Soluble
Appearance and Odor Light straw, transparent and slight odor.

Section IV Fire and Explosion Hazard Data

Flash Point (Method Used) 73°F (Open Cup)
Flammable Limits in Air (% By Volume) N.D.
Extinguishing Media Foam, Dry Chemical, CO₂
Special Fire Fighting Procedures: Evacuate personnel to a safe area. Wear self-contained breathing apparatus. Wear full protective equipment
Unusual Fire and Explosion Hazard Combustion can produce nitrogen oxides, toxic and corrosive gasses.

Section V Reactivity Data

Stability	Stable
Conditions to Avoid	Store in a well-ventilated place at temperatures below 120°F. Keep container tightly closed. keep from freezing
Incompatibilities	Will hydrolyze with water, but no hazard. Avoid contact with strong oxidizing agents and acids.
Hazardous Decomposition or By Products	Combustion may produce CO ₂ , CO and ethanol (flammable liquid)
Hazardous Polymerization	May Not Occur

Section VI Health hazard Data

Primary Routes of Entry	Inhalation: No	Dermal: Yes	Ingestion: Yes
Acute Health hazard	LD50 (oral/rat) 2.02 - 2.43 ml/kg		
Chronic Health Hazard	No information available		
Carcinogenicity			
NTP: No	IARC Monograph: No	OSHA Regulated: No	

Signs and Symptoms of Exposure:

Skin Contact	Prolonged and repeated contact with skin can cause defatting and drying of the skin resulting in skin irritation and dermatitis. May cause severe irritation.
Eye Contact	Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product. May cause severe irritation.
Ingestion	Although ingestion is unlikely, liquid may irritate upper digestive tract if swallowed. May cause severe irritation.
Inhalation	May cause severe irritation.

Medical Condition Generally Aggravated by Exposure

Emergency First Aid Procedures

Eyes	Immediately flush eyes with plenty of water. Call a physician.
Skin	Immediately wash skin with soap and water. Wash contaminated clothing before reuse.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.
Inhalation	Immediately remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Please note: Symptoms may be delayed; prompt medical attention may be required. Call a physician.

Section VII Precautions for Safe Handling and Use

Steps to be Taken in Case the Material is Released or Spilled:

Turn off ignition sources. Soak up with sand, oil dry or other absorbent material.

Waste Disposal Method As in accordance with EPA and local regulations.

Section VIII Special Precautions

Precautions to be Taken in Handling and Storage:

Store in a well-ventilated place at temperatures below 120°F. Keep container tightly closed.
Keep from freezing *** Agitate contents of container before using ***

Section IX Control Measures

Respiratory Protection:	Ventilation	Local exhaust	Recommended
		Mechanical	Adequate ventilation system
		Special	
		Other	
Eye Protection:	Safety glasses should be worn		
Protective Gloves:	Rubber or plastic gloves should be worn		
Protective Clothing:	Rubber apron		
Other Protective Equipment:	Eye wash equipment and safety shower should be available. NIOSH approved respirator as needed		
Other Precautions:	Wash hands after use.		

Section X SARA Title III

SECTION 313 SUPPLIER NOTIFICATION

This product contains the following toxic chemicals subject to the reporting requirements of SECTION 331 of the EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 and of 40 CFR 371

CAS #

Chemical Name None

Percent by Weight None

THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE DCOPIED AND DISTRIBUTED FOR THIS MATERIAL

Section XI Transportation Information

SHIPPING INFORMATION

PRODUCT NAME	AP-Silane 21
DOT PROPER SHIPPING NAME	Flammable Liquid N.O.S. (contains Vinyl Trimethoxy Silane CAS# 2768-02-7)
HAZARD CLASS	3
UN NUMBER	UN1993
PACKING GROUP	II
LABEL REQUIREMENTS	Flammable Liquid

Hazard Ratings

Health	1
Flammability	3
Reactivity	1

Date Prepared May 16, 2005
Prepared By..... API
Date Revised October 22, 2009
Revised By API

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