



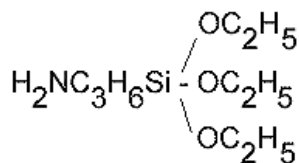
ADVANCED POLYMER, INC.

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AP-SILANE 33

AP-SILANE 33 is a γ -aminopropyltriethoxy silane coupling agent . AP-SILANE 33 has both organic and inorganic reactivity. Due to its unique functionality AP-SILANE 33 will impart superior adhesion and strength properties.

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 33 is recommended for fiberglass reinforced phenolic, acrylic, melamine and epoxy thermoset composites.

PACKAGING

AP-SILANE 33 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
Molecular Weight:	221.4
Specific Gravity (@ 25°C):	0.95
Activity:	100%

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AP-SILANE 33

Section I Product Identity

Product Name AP-SILANE 33
Chemical Name/Family: 3-aminopropyltriethoxy silane
CAS Registry #919-30-2
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 :	CAS #:	USOS:	TWA:	STEL:	PERCENT:
3-aminopropyltriethoxy silane	919-30-2				>98

Section III Physical and Chemical Properties

Boiling Point 217°C (423°F)
Specific Gravity (H₂O=1) 0.94
Vapor Pressure (@25°C) 7.6
Vapor Density (Air=1) >1
Percent Volatile By Weight 100%
Evaporation Rate (BuAc=1) <1
Solubility in Water Soluble
Appearance and Odor Light straw, transparent liquid with slight amine odor.

Section IV Fire and Explosion Hazard Data

Flash Point (Method Used) 208°F (Open Cup)
Flammable Limits in Air (% By Volume) ND
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 acid.
Hazardous Decomposition or By Products Combustion may produce CO₂, CO and ethanol (flammable liquid)
Hazardous Polymerization May Not Occur

Section VI Health hazard Data

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

Signs and Symptoms of Exposure:

Skin Contact	Brief contact may cause slight irritation. Prolonged and repeated contact causes chemical burns with discomfort or pain.
Eye Contact	Causes severe irritation experienced as discomfort or pain. Corneal injury may be severe and, if not treated promptly, could result in permanent impairment of vision.
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

None known

Emergency First Aid Procedures

Eyes	Immediately flush eyes with plenty of water. Seek medical attention.
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:

Dispose of according to State, Local and EPA regulations.

Section VIII Special Precautions

Precautions to be Taken in Handling and Storage:

Store in a well-ventilated place at temperatures between 40°F (4.4°C) and 105°F (40.6°C). Keep container tightly closed. Store away from oxidizing agents, sources of heat, direct sunlight or rain. No smoking in area of storage *** Agitate contents of container before using ***

Section IX Control Measures

Respiratory Protection		
Ventilation	Local exhaust	Recommended
	Mechanical	Adequate ventilation system
	Special	None required
	Other	None
Eye Protection	Safety glasses should be worn	
Protective Gloves	PVC coated, butyl or neoprene 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	Wear self contained breathing apparatus in high vapor concentrations. 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	Percent by Weight

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

Section XI Transportation Information

SHIPPING INFORMATION

PRODUCT NAME	AP-Silane 33
DOT PROPER SHIPPING NAME	Non-regulated for DOT Transportation
HAZARD CLASS	None
UN NUMBER	None
PACKING GROUP	None
LABEL REQUIREMENTS	Non-hazardous

Hazard Ratings

Health	3
Flammability	1
Reactivity	1
PPI	X (personal protection rating to be supplied by user depending on use conditions)

Date Prepared October 18, 2005

Prepared By API

Date Revised March 9, 2011

Revised By API

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