



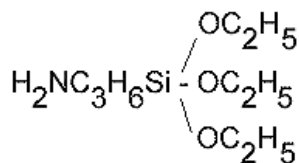
**ADVANCED POLYMER, INC.**

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## AP-SILANE 33

AP-SILANE 33 is a  $\gamma$ -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.

### TYPICAL PROPERTIES

Appearance:	Clear liquid
Molecular Weight:	221.4
Specific Gravity (@ 25°C):	0.95
Activity:	100%

### Advanced Polymer, Inc.

400 Paterson Plank Road  
Carlstadt, NJ 07072  
Tel: (201) 933-0600  
Fax: (201) 933-8442  
www.advpolymer.com

### I want to know more!

[technical@advpolymer.com](mailto:technical@advpolymer.com)

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Revised October 27, 2009

## AP-SILANE 33

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### Section I Product Identity

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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

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### Section II Hazardous Components/Composition Information

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CHEMICAL	3-aminopropyltriethoxy silane
CAS #	919-30-2
USOS	
TWA	
STEL	
PERCENT	>98

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### Section III Physical and Chemical Properties

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Boiling Point	N.D.
Specific Gravity (H <sub>2</sub> O=1)	0.95
Vapor Pressure	<010
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 liquid with slight amine odor.

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### Section IV Fire and Explosion Hazard Data

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Flash Point (Method Used)	208°F (Open Cup)
Flammable Limits in Air (% By Volume)	N.D.
Extinguishing Media	Foam, Dry Chemical, CO <sub>2</sub>
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 <sub>2</sub> , 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		
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

### 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 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	
	Other	

### 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                      None

Percent by Weight                None

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

## Section XI Transportation Information

### SHIPPING INFORMATION

AP-SILANE 33 is not regulated by DOT

### 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 ..... December 4, 2009

Revised By ..... API

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