

AP-Silane 31

Section 1. Product and Company Identification

Product Name:	AP-Silane 31
Chemical Name/Family:	3-(2-aminoethylamino)propyl-methyl-dimethoxysilane
CAS No.:	3069-29-2
Product Use:	Coupling Agent
Restrictions:	For Industrial Use Only
Company:	Advanced Polymer.
Address:	400 Paterson Plank Road Carlstadt, NJ 07072 U.S.A.
Telephone:	201-933-0600
Fax:	201-933-8442
24 Hour Emergency Number	800-424-9300
24 Hour Chemtrec Number	800-424-9300

Section 2. Hazards Identification

GHS Classification:

Physical Hazards

Flammable liquids	Category 4
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Health Hazards

Acute toxicity, oral	Category 4
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Skin corrosion/irritation	Category 2
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Serious eye damage/eye irritation	Category 1
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Sensitization, skin	Category 1A
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Environmental Hazards

Not classified

GHS Label:



Symbol:

Signal Word: **Danger**

Hazard Classification:

Hazard Statement:

Combustible liquid

Harmful if swallowed

Causes skin irritation

Causes serious eye damage

May cause an allergic skin reaction

Precautionary Statement:
Prevention

- Keep away from flames and hot surfaces. – No smoking.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Wash hands and exposed skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Contaminated work clothing should not be allowed out of the workplace.

Response

- In case of fire: Use foam, dry chemical powder, Carbon Dioxide (CO₂).
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- Rinse mouth.
- IF ON SKIN: Wash with plenty of soap and water.
- Specific treatment (see supplemental first aid instructions on this SDS).
- If skin irritation or rash occurs: Get medical advice/attention.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Immediately call a POISON CENTER or doctor/physician.
- Take off contaminated clothing and wash before reuse.

Storage

- Store in a well-ventilated place. Keep cool.

Disposal

- Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3. Composition/Information on Ingredients

Ingredients	CAS No.	Percent
3-(2-aminoethylamino)propyl-methyl-dimethoxysilane	3069-29-2	>98
Methanol (impurity)	67-56-1	<1

Section 4. First Aid Measures

- Skin Contact:** Remove contaminated clothing immediately and wash skin with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
- Eye Contact:** Rinse immediately with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
- Inhalation:** Move to fresh air. Call a physician if symptoms develop or persist.
- Ingestion:** Rinse mouth. Get medical attention immediately.
- Other Symptoms & effects, acute** Dermatitis. Rash. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain. May cause an allergic skin reaction.

and delayed

Section 5. Firefighting Measures

Fire and Explosion Hazard:	By heating and fire, harmful vapors/gases may be formed. Nitrogen oxides. (corrosive)
Fire Extinguishing Media:	Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable Extinguishing Media:	No Information Available
Special Fire Fighting Information:	Firefighters must use standard protective equipment including flame retardant coat, helmet, gloves, rubber boots, and self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage.

Section 6. Accidental Release Measures

Personal Precautions:	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Ensure adequate ventilation. Wear appropriate personal protective equipment. Avoid breathing mist or vapor.
Protective Equipment:	Wear appropriate protective equipment.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Shut off all sources of ignition.
Methods and Materials for Containment and Cleaning up:	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use.

Section 7. Handling and Storage

Handling Conditions:	Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Use care in handling/storage. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.
Storage Conditions:	Keep away from heat, sparks and open flame. Keep container tightly closed. Store in a well-ventilated place. Keep out of the reach of children. Store in a cool, dry place out of direct sunlight. Keep in original container.

Section 8. Exposure Control/Personal Protection

Exposure Limits:	Methanol (Impurity) (CAS# 67-56-1): OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
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PEL 260 mg/m³; 200 ppm

ACGIH Threshold Limit Values

STEL 250 ppm

TWA 200 ppm

NIOSH: Pocket Guide to Chemical Hazards

STEL 325 mg/m³; 250 ppm

TWA 260 mg/m³; 200 ppm

Appropriate engineering controls:

Local Exhaust: Recommended

Mechanical (general): Adequate ventilation system

Personal protective equipment:

Respiratory Protection:

NIOSH approved respirator as needed

Hand Protection:

Rubber or plastic gloves should be worn

Eye Protection:

Face shield or protective goggles should be worn

Skin and Body Protection:

Rubber apron

Other Protective Equipment:

Eye wash equipment and safety shower should be available.

Hygiene Measures:

Avoid breathing vapor. Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Section 9. Physical and Chemical Properties

Physical State:	Liquid
Color:	Colorless, transparent
Odor:	Amine odor
Odor Threshold:	No information available
% Non-volatile by Weight:	No information available
pH:	No information available
Specific Gravity (77°F):	1.02
% Purity:	100
% Volatile by Weight:	100
Melting Point:	< 32 °F (< 0 °C)
Freezing Point:	No information available
Boiling point:	453.2 °F (234 °C)
Flash Point:	186.8 °F (86 °C) Closed Cup 230 °F (110 °C) Open Cup
Evaporation Rate (BuAc=1):	<1
Flammability:	No information available
Explosion Limits:	No information available
Vapor Pressure (25°C):	<1.3kPa
Vapor Density (Air=1):	7.1
Solubility:	Soluble in water
Partition Coefficient:	No information available
Auto-ignition Temperature:	>392°F (200°C)
Viscosity:	No information available
Decomposition Temperature:	No information available

Section 10. Stability and Reactivity

Chemical Stability:	Stable
Reactivity:	Slowly react with water, acids or bases.
Hazardous Polymerization:	May not occur
Conditions to Avoid:	Store in a well-ventilated place at temperatures below 120°F.
Incompatible Materials:	Will hydrolyze with water, but no hazard. Avoid contact with acids, bases and water.
Hazardous Decomposition Products:	Thermal breakdown of this product during fire or very high heat condition may evolve the following hazardous decomposition product: Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Nitrogen oxides.

Section 11. Toxicological Information

Potential Health Effects:	
Inhalation	Prolonged inhalation may be harmful.
Ingestion:	Harmful if swallowed.
Skin:	Causes skin irritation. May cause an allergic skin reaction.
Eyes:	Causes serious eye damage.
Acute Toxicity:	Harmful if swallowed. May cause an allergic skin reaction. Dermatitis. Rash. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain. May cause an allergic skin reaction.
	3-(2-Aminoethylamino)propyl-methyl-dimethoxysilane (CAS 3069-29-2)
	Acute
	Oral LD50 Rat > 2000 mg/kg; 200 - 2000 mg/kg
	Methanol(Impurity) (CAS 67-56-1)
	Acute
	Dermal LD50 Rabbit 15800 mg/kg
	Inhalation LC50 Rat 64000 ppm, 4 Hours; 87.5 mg/l, 6 Hours
	Oral LD50
	Mouse 7300 mg/kg
	Rabbit 14.4 g/kg
	Rat 5628 mg/kg
Chronic Toxicity:	No information available
Skin corrosion/irritation:	No information available
Serious eye damage/eye irritation:	Eye-Rabbit : 15mg Severe
Respiratory Sensitization:	No information available
Skin Sensitization:	May cause an allergic skin reaction.
Mutagenicity:	No information available
Reproductive toxicity:	Reproductive effect: NOAEL 1000mg/kg/day(Rat), Developmental toxicity:NOAEL 1000mg/kg/day(Rat)
Specific target organ toxicity - single exposure	May cause damage to the following organs. Optic nerves. Central nervous system. [Methanol]
Specific target organ toxicity -	No information available

repeated exposure

Aspiration hazard

No information available

Carcinogenicity:

IARC:	No	NTP:	No	OSHA:	No
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Section 12. Ecological Information

Ecotoxicity (Aquatic and Terrestrial):

Methanol(Impurity) (CAS # 67-56-1):

Crustacea EC50 Water flea (*Daphnia magna*) > 10000 mg/l, 48 hours

Fish LC50 Fathead minnow (*Pimephales promelas*) > 100 mg/l, 96 hours

Bioaccumulative Potential

No information available

Mobility in Soil:

No information available

PBT and vPvB Assessment:

No information available

Other Adverse Effects:

Easily causes hydrolysis in water or atmosphere.

Section 13. Disposal Considerations

Product:

Dispose of according to State, Local and EPA regulations. Can be burned in a chemical incinerator equipped with an afterburner and scrubber.

**Disposing of
Contaminated Packaging:**

Do not dispose if unopened. Do not dispose emptied container unless the contents have been completely removed and container has been flushed with a clean neutral solvent and then dried up. Do not dispose the emptied container unlawfully. Observe all federal state and local laws.

Section 14. Transport Information

Land Transport (DOT):

UN Number:

NA-1993

UN Proper Shipping Name:

Combustible liquid, n.o.s. (3-(2-Aminoethylamino)propyl-methyl-dimethoxysilane)

Technical Shipping Name:

None

Transport Hazard Class:

Combustible Liq.

Packing Group:

III

Sea Transport (IMDG/IMO):

Technical Shipping Name

Not Regulated

UN Number:

None

UN Proper Shipping Name:

None

Transport Hazard Class:

None

Packing Group:

None

Air Transport (IATA):

Not Regulated

UN Number:

None

UN Proper Shipping Name:

None

Transport Hazard Class:

None

Packing Group:

None

Environmental Hazards (e.g., Marine pollutant):

No information available

Section 15. Regulatory Information

International Inventories:

TSCA (USA):	Listed
DSL (Canada):	Listed
ENCS (Japan)	Listed
EINECS (Europe):	Listed
ELINCS (Europe):	No
IECSC (China):	Listed
KECL (Korea):	Listed
PICCS (Philippines):	Listed
AICS (Australia):	Listed
ERMA (New Zealand):	Listed

Federal Regulations:

SARA 313:	None
SARA 311/312:	No information available
Clean Water Act:	No information available
Clean Air Act, Section 112 HAPs (See 40CFR61):	No information available

State Regulations:

Massachusetts Right to Know Components:	Methanol(Impurity) (CAS # 67-56-1)
New Jersey Right to Know Components:	Methanol(Impurity) (CAS # 67-56-1)
Pennsylvania Right to Know Components:	Methanol(Impurity) (CAS # 67-56-1)
California Proposition 65:	Methanol(Impurity) (CAS # 67-56-1)

Section 16. Other Information

WHMIS Classification: No information available

HMIS Rating:

Health Hazard	3
Flammability:	2
Physical Hazard:	0
Personal Protection Equipment:	X

NFPA Rating

Health Hazard:	3
Fire Hazard:	2
Reactivity Hazard:	0

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