

# Material Safety Data Sheet



Effective: April 1, 2008

Greenstone Inc. of Delaware

## MATERIAL IDENTIFICATION: ALKOXY-SILANE COMPOUND

### Section 1 - Product and Company Identification

**Chemical Name:** Not applicable

**Trade Name:** Permeate™ HS200-CA Cera-Aluminum

**Material Use:** Industrial and Commercial uses

**Manufacturer Information:** Greenstone Inc. of Delaware, 11 Penn Plaza, 5<sup>th</sup> floor, New York, NY 10001-2003 USA  
Also D&D Corporation, 7870-20 Sakura machi, Yokkaichi-shi, Mie-ken, 512-1211 Japan

**Description:** Alkoxy Silane Compound with aluminum particles

### Section 2 - Hazardous Ingredients

Common Name	Chemical Name	CAS #	% Weight	ACGIH-TLV	LD50
Alkoxy Silane Compound	Proprietary		75 max	200ppm -TWA	5628mg/kg(rat)
Aluminum	Aluminum	7429-90-5	25 max		
Silica	Silica	7631-86-9	5 max		
Other additives	Proprietary		5 max		

### Section 3 - Physical/Chemical Characteristics

**Specific Gravity:** 1.25 g/ml @ 23 deg.C

**Viscosity:** 250 measured by E type Viscosity Meter @20rpm

**PH:** 6.0

**Appearance and Odor:** Silver color liquid with no odor

### Section 4 - Fire and Explosion Hazard Data

**Flash Point(Method Used):** Seta Closed up 54.6 deg.C

**Extinguishing Media:** Use dry or foam type chemical or carbon dioxide

**Special Fire Fighting Procedure:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Use water spray to blanket fire, cool fire exposed containers, and to flush non-ignited spills or vapors away from fire.

**Unusual Fire and Explosion Hazard:** Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Moderate explosion hazard and dangerous fire hazard when exposed to heat, sparks, or flames. Sensitive to static discharge.

### Section 5 - Reactivity Data

**Stability:** Stable under ordinary condition

**Condition to Avoid:** Heat, Flames, sparks, other ignition sources and incompatibles

**Hazardous Polymerization:** N/A

### Section 6 - Health Hazard Data

**Route(s) of Entry:** Inhalation? Yes      Skin? Yes      Ingestion? Yes

**Health Hazard (Acute and Chronic):** POISON! DANGER! VAPOR HARMFUL. MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. CANNOT BE MADE NONPOISONOUS. FLAMMABLE LIQUID AND VAPOR. CAUSES IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT. AFFECT CENTRAL NERVOUS SYSTEM AND LIVER.

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**Inhalation:** A slight irritant to the mucous membranes. Symptoms of overexposure may include headache, drowsiness, nausea, vomiting, blurred vision, blindness, coma, and death.

**Ingestion:** Toxic. Symptoms parallel inhalation.

**Skin Contact:** Slight irritant.

**Eye Contact:** Irritant.

**Carcinogenicity:** N/A

**Signs and Symptoms of Exposure:** 1) Dry and cracked skin 2) Blindness 3) Skin irritation 4) A slight irritant to the mucous membranes.

**Medical Conditions Generally Aggravated by Exposure:** Symptoms of overexposure may include headache, drowsiness, nausea, vomiting, blurred vision, blindness, coma, and death.

## Emergency and First Aid Procedure:

**Inhalations:** Remove to fresh air.

**Ingestion:** Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Skin Contact:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

## Section 7 – Precautions for Safe Handling and Use

**Steps to be Taken in Case of Material is Released or Spilled:** Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in section 8. Isolate hazard area. Use non-sparking tools and equipment for cleaning. Collect liquid in an appropriate container or absorb with an inert material (e.g. vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

**Water Disposal Method:** Should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Dispose of container and unused contents in accordance with federal, state and local requirements.

**Precautions to be taken in Handling and Storing:** Protect against physical damage. Store in cool, ventilated location, away from area where fire hazard is there. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use area should be No-smoking area. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose to such containers to heat, sparks, flame, static electricity or other sources of ignition: liquid may explode and cause injury or death.

**Other Precautions:** Avoid breathing vapor and avoid contact with eyes, skin & clothing's. Wash thoroughly after handling. Keep container closed. Keep away from heat, directly under sunlight, sparks and flame.

## Section 8 – Control Measures

**Respiratory Protection (Specify Type):** If the exposure limit is exceeded and engineering controls are not feasible, wear a supplied air, full-facepiece respirator, airtight hood, or full-facepiece self-contained breathing apparatus. Breathing air quality must meet the requirements of the OSHA respiratory protection standard (29CFR1910.134). This substance has poor warning properties.

**Ventilation:** Proper ventilation is required. / General exhaust is required.

**Protective Gloves:** Rubber or neoprene gloves

**Eye Protection:** Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

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**Other Protective Clothing or Equipment:** Protective apron is advisable

## Section 9 – Special Precautions

**Precautions to be taken in Handling and Storing:** See Section 7

**Precautions during the curing:** It is a non-flammable liquid, however, from the chemical reaction during the curing process, Methanol gas will be emitted into the surrounding air. Methanol (ACGIH: TLV-WA 200ppm) is flammable and precautions should be taken for fire source and inhalation. The approximate curing time is 3 hours, however, small amount of Methanol will continue to be emitted until fully cured.

## Section 10 – Toxicological Information

Toxicological information available for this product. Please write to the address indicated.

## Section 11 - Ecological Information

There is no ecological information available for this product; however, large quantities should not be discharged to waterways, sewers, or drain.

## Section 12 - Transportation

### Domestic (Land DOT)

**Proper Shipping Name:** Permeate HS200-CA

**Hazard Class:** 3

**UN/NA:** 1263 (PAINT)

**Packing Group:** III

Classified as a CLASS 3 (FLAMMABLE LIQUID) Dangerous Goods according to the International Air Transportation Association 44<sup>th</sup> edition 2003.

United Nation Number: 1263

Dangerous goods of Class 3 (Flammable Liquid) are incompatible in a placard load with any of the following:

- Class 1
- Class 2.1, if both the Class 3 and Class 2.1 dangerous goods are in bulk
- Class 2.3
- Class 4.2
- Class 5
- Class 6, if the Class 3 dangerous goods are nitro methane
- Class 7

### Emergency Information (Transport):

Dangerous Goods – Initial Emergency Response Guide (SAA/SNZ HB76:1997)

For LIQUIDS – Highly flammable, Guide No.14

## Section 13 – Regulatory Information

**Poison Schedule:** No Information

### RISK PHRASES

**R11** Highly flammable

**R20/21/22** Harmful by inhalation, in contact with skin, and if swallowed

**R38** Irritating to skin

### SAFETY PHRASES

**S2** Keep out of reach of children

**S7** Keep container tightly closed

**S16** Keep away from sources of ignition – No smoking.

**S24/25** Avoid contact with skin and eyes.

**S62** If swallowed, do induce vomiting; Seek medical advice immediately and show this container or label.

## DISCLAIMER

**TO THE BEST OF OUR KNOWLEDGE, THE INFORMATION PROVIDED ABOVE MEETS THE REQUIREMENTS OF THE NATIONAL OCCUPATIONAL HEALTH AND SAFETY COMMISSIONS (NOHSC) DIRECTIVES FOR HAZARDOUS SUBSTANCES, WHICH HAVE BEEN TESTED AS A WHOLE. THE DATA PROVIDED ON THIS MATERIAL SAFETY DATA SHEET IS FROM MANUFACTURERS OF THE ORIGINAL COMPONENTS. ALL ANIMAL TEST DATA HAS BEEN OBTAINED FROM THE PUBLIC DOMAIN, NO ANIMAL TESTS HAVE BEEN CONDUCTED BY THE MANUFACTURER.**

For additional information, please contact the manufacturer:

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New York, NY 10001-2003  
Attn: MSDS Dept.

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