



Material Safety Data Sheet

Product Name: A-1100 Amino Silane mixture

MSDS Date: 11/10/2010

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: A-1100 Amino Silane epoxy pre-treatment mixture

Manufacturer: His Glassworks, Inc.
91 Webb Cove Road
Asheville, NC 28804
800-914-7463

Emergency Phone number: ChemTel, Inc.
Contract number: MIS0006930
Toll Free: 800-255-3924
International: +813-248-0585

2. COMPOSITION AND INFORMATION ON INGREDIENTS

Component	CAS#	Concentration
Propan-2-ol	67-63-0	< 98%
Gamma-Aminopropyltriethoxysilane	919-30-2	< 3%

3. HAZARDS IDENTIFICATION

Physical State: Liquid

Color: Clear, colorless

Odor: slight alcoholic

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Hazard Summary Flammable. In use, may form flammable/explosive vapour-air mixture. May be harmful if swallowed. Irritating to eyes. May cause skin irritation. May cause respiratory tract irritation. May cause irritation of the gastrointestinal tract. May cause allergic skin reactions.

Potential Health Effects

Skin: May Irritate Skin

Prolonged or repeated skin contact with liquid may cause defatting resulting in dryness, redness and possible blistering.

Prolonged or repeated skin contact may result in absorption of potentially harmful amounts of material resulting in possible kidney damage.

Eyes: Irritating to eyes

Causes itching, burning, redness and tearing.

May cause irreversible eye damage.

Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

May cause systemic poisoning with symptoms paralleling those of inhalation.

Inhalation: May cause respiratory tract irritation.

Causes headache, drowsiness or other effects to the central nervous system.

Vapors may cause drowsiness and dizziness.

Inhalation of high vapor concentrations can cause CNS-depression and narcosis.

Chronic Exposure: Prolonged or repeated skin contact with liquid may cause defatting resulting in dryness, redness and possible blistering.

Repeated or prolonged exposure to the substance can produce liver or kidney damage.

Aggravated Medical Condition: Cardiac irregularities.

Liver disorders

Kidney disorders

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Suitable extinguishing media:	Carbon dioxide (CO ₂) Dry Chemical Cool closed containers exposed to fire with water spray.
Extinguishing media which shall not be used for safety reasons:	Do not use a solid water stream as it may scatter and spread fire.
Specific hazards during fire fighting:	Flammable. Vapors may form explosive mixtures with air.
Specific hazards during fire fighting:	Vapors are heavier than air and may spread along floors. Vapors may travel to areas away from work site before igniting back to vapor source. In case of fire, hazardous decomposition products may be produced such as: carbon monoxide carbon dioxide (CO ₂)
Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Wear personal protective equipment Immediately evacuate personnel to safe areas. Keep people away from and upwind of spill. Ensure adequate ventilation. Remove all sources of ignition. Do not swallow. Avoid breathing vapors, mist or gas. Avoid contact with skin, eyes and clothing.
Environmental precautions:	Prevent further leakage or spillage if safe to do so. Discharge into the environment must be avoided.

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Environmental precautions:	Do not flush into surface water or sanitary sewer system. Prevent product from entering drains. Collect contaminated fire extinguishing water separately. This must not discharge into drains.
Methods for clean-up:	Ventilate the area. No sparking tools should be used. Use explosion proof equipment.
Methods for clean-up:	Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).

7. HANDLING AND STORAGE

Handling

Handling:	Wear personal protective equipment. Use only in well ventilated areas. Keep container tightly closed. Do not smoke. Do not swallow. Avoid breathing vapors, mist or gas. Avoid contact with skin, eyes and clothing.
Advice on protection against fire and explosion:	Keep away from fire, sparks and heated surfaces. Take precautionary measures against static discharges. Ensure all equipment is electrically grounded before beginning transfer operations. Use explosion proof equipment. Keep product and empty container away from heat and sources of ignition. No sparking tools should be used.

No smoking.

Storage

Requirements for storage areas and containers:

Store in area designed for storage of flammable liquids. Protect from physical damage.

Keep containers tightly closed in dry, cool and well ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Keep away from heat and sources of ignition.

Requirements for storage areas and containers:

Keep away from direct sunlight.

Store away from incompatible substances.

Container hazardous when empty.

Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Protective Measures:

Ensure that eyewash stations and safety showers are close to the workstation location.

Engineering measures:

Use with local exhaust ventilation.

Prevent vapor buildup by providing adequate ventilation during and after use.

Eye protection:

Do not wear contact lenses.

Wear safety glasses with side shields.

Hand protection:

Solvent resistant gloves.

Skin and body protection:

Solvent resistant apron.

Flame retardant antistatic protective clothing.

Respiratory protection:

In case of sufficient ventilation wear suitable respiratory equipment.

Hygiene measures:

When using, do not eat or drink or smoke.

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Hygiene measures:

- Wash hands before breaks and immediately after handling the product.
- Keep work clothes separate.
- Remove and wash contaminated clothing before re-use.
- Do not swallow.
- Avoid breathing vapors, mist or gas.
- Avoid contact with skin, eyes and clothing.

Exposure Guidelines

Component	Type	Value
Isopropanol	TWA	400ppm
	STEL	500ppm

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid, clear
Color:	Colorless
Odor:	Slight alcoholic
Molecular Weight:	60.11 g/mol
pH:	not applicable
Melting point/range:	-88° C (-126° F)
Boiling point/range:	82.3° C (180.1° F)
Vapor pressure:	44hPa @ 20° C (68° F)
Relative vapor density:	2.1 (Air = 1.0)
Density:	0.785g/cm ³ @ 20° C (68° F)
Water solubility:	completely soluble
Viscosity, dynamic:	2.1mPas @ 25° C (77° F)

10. STABILITY AND REACTIVITY

Conditions to avoid:	Heat, flames and sparks. Keep away from direct sunlight.
Materials to avoid:	Strong acids. Strong oxidizing agents. Keep away from metals. Acetaldehyde. Aluminum. Chlorine Ethylene oxide
Materials to avoid:	Isocyanates Oxygen May attack plastics, rubbers and coatings.
Hazardous decomposition products:	In case of fire hazardous decomposition products may be produced such as: Carbon monoxide Carbon dioxide (CO ₂)
Hazardous reactions:	Hazardous polymerisation does not occur. Stable under recommended storage conditions.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity:	LD50 rat Dose: 5045 mg/kg
Acute dermal toxicity:	LD50 rabbit Dose: 12800 mg/kg
Acute inhalation toxicity:	LC50 rat Dose: 16000 ppm

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Exposure time: 8h

Skin irritation: rabbit

Mild skin irritation

Eye irritation: rabbit

Severe eye irritation

12. ECOLOGICAL INFORMATION

Biodegradability: Biochemical Oxygen Demand (EOD) Biochemical oxygen demand within 5 days.

Biodegradation: 58%

Toxicity to fish: LC50

Toxicity to fish: Species: Goldfish

Dose: 5g/l

Exposure time: 24h

Additional ecological information: Should not be released into the environment. Accumulation in aquatic organisms is unlikely.

13. DISPOSAL CONSIDERATIONS

Observe all Federal, State and Local Environmental regulations.

14. TRANSPORT INFORMATION

DOT Classification:

Proper shipping name: Flammable liquids, corrosive, n.o.s.

Class: 3

UN ID#: UN2924

Packing Group: II

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IATA Classification:

Proper shipping name: Flammable liquids, corrosive, n.o.s.
Class: 3
UN ID#: UN2924
Packing Group: II

15. REGULATORY INFORMATION

EU. EINECS: on the inventory or in compliance with the inventory
US Toxic Substances Control Act: On TSCA Inventory
Australia (Industrial Chemical Notification and Assessment Act) On the inventory or in compliance with the inventory
Canada All components of this product are on the Canadian DSL list.
Japan On the inventory or in compliance with the inventory
Korea On the inventory or in compliance with the inventory
Phillipines On the inventory or in compliance with the inventory
China On the inventory or in compliance with the inventory
Switzerland On the inventory or in compliance with the inventory
New Zealand On the inventory or in compliance with the inventory

16. OTHER INFORMATION

	HMIS III	NFPA
Health:	2	2
Flammability	3	3
Reactivity:	0	0
Personal Protection	0	0

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