



Safety Data Sheet

Section 1: Identification

Product Identification: High Silica; fabric, mat
Part Numbers: HTX-600, HTX-1000
Coating: Silicone

Manufacturers Identification:
Amatex Corporation
1032 Stanbridge Street
Norristown, Pa 19404
610-277-6100

This product is woven continuous filament of amorphous silica fabric in loom stage covered with silicone. The applications of this product include pad fabrics, valve and generator covers, curtain materials and damage control cloth.

Section 2: Hazard Identification

Classification:

Health, Respiratory or skin sensitization, 2 skin
Health, Skin Corrosion/irritation, 3
Health, Serious eye damage/ eye irritation, 2B
Health, Specific target organ toxicity, single exposure, 3

Signal Word: Warning

Hazard Pictogram:



GHS Phrases:

H317- may cause an allergic skin reaction
H315- causes skin irritation
H320- causes eye irritation
H335- may cause respiratory irritation

GHS Precautionary Statements:

P264 Wash thoroughly after handling
P333+313 if skin irritation or a rash occurs get medical advice
P337 if eye irritation persists:



P337+313 Seek medical advice/ attention

Acute exposure:

| Component | CAS No. | ACGIH TLV (8hr TWA) | OSHA PEL (8hr TWA) |
|--|-----------|----------------------|--|
| Amorphous Silica | 7631-86-9 | | 80mg/m ³ /%SiO ₂ |
| Nonrespirable | | 10 mg/m ³ | |
| Respirable particulate with fiber like dimensions (glass shards) | | 3 mg/m ³ | |
| | <0.002% | | |

Note: There is not an established threshold limit value (TLV) that is directly applicable to this family of silica materials. (The exposure limits shown are taken from the OSHA and ACGIH list of air contaminants which include various forms of amorphous silica.) Chemically, this product contains amorphous silica with trace elements of aluminum, titanium, and iron. This form of silica will partially transform to a cristobalite structure when subjected to steady state temperatures above 1850° F (a form of crystalline silica- CAS No. 14464-46-1 , ACGIH TLV - 0.05mg/m³ (Respirable) ; OSHA PEL for cristobalite is 0.05 mg/m³, OSHA limits for other silica forms which falls under non-specific dust exposure - 5 mg/m³ / (%SiO₂+2) , respirable, and 15 mg/m³ / (%SiO₂+2) , total).

Dust from cutting and application may cause irritation to the respiratory tract and cause symptoms similar to bronchitis.

Section 3: Composition and Information on Ingredients

| Ingredients | % w/w | CAS # |
|--|--------|----------------------------------|
| Amorphous Silica (SiO ₂) | 70-85% | 7631-86-9 |
| Aluminum Oxide (Al ₂ O ₃) | 3-4% | 1344-28-1 |
| Silicone Coating | 15-25% | 471-34-1; 14808-60-7; 68083-19-2 |

The coating is considered not to have any hazardous ingredients.

Other Ingredients: Items listed in this section are chemically or physically bonded to the fibrous glass textile and are deemed non-hazardous in the state that they are supplied.

Chemical and common name: Starches, PVA, lubricants, surfactants, and humectants (i.e. normal textile sizing) <1%.

Section 4: First-Aid Measures

Primary Routes of Exposure: eye contact, skin contact and inhalation may cause temporary irritation.

Potential Health Effects:

Inhalation: Dusts and fibers from this product may cause mechanical irritation of the nose, throat and respiratory track.

Skin Contact: Dusts and fibers from this fabric may cause temporary mechanical irritation to the skin.



Eye Contact: Dusts and fibers from this product may cause temporary mechanical irritations to the eyes.

Ingestion: Unlikely, however, ingestion of product may produce gastrointestinal irritation and disturbances.

Inhalation: If irritation occurs, move to fresh air.

Skin Contact: If irritation occurs, wash with cool water and mild soap. Washcloth may be helpful in removing fibers. To avoid worsening irritations refrain from rubbing and scratching the affected areas.

Eye Contact: If irritation occurs, gently rinse the affected area with clean water for at least 15 minutes.

Ingestion: Rinse mouth with water and seek medical attention. Watch the person for several days to make sure that intestinal blockage does not exist.

If in any case irritation persists please seek medical assistance.

Section 5: Fire-fighting Measures

Suitable Extinguishing Media: dry chemical powder, foam, fog, carbon dioxide. Do not use direct water spray especially if fire began as an electrical fire.

Specific Hazards: not explosive. The product itself will not burn but its packaging may.

Flash point: n/a

Auto Ignition temp: n/a

Flammability limits: n/a

Hazardous Combustion Products: Primary combustion products are carbon monoxide, hydrogen, carbon dioxide, and potentially other undetermined compounds could be released in small quantities from the various sizings.

Special Protective Equipment: Self-containing breathing apparatus, protective clothing, gloves and a helmet.

Section 6: Accidental Release Measures

Personal Precaution: Do not breathe in fiber dust; use a respirator if there is a lot of dust while processing. Be sure to have appropriate ventilation while processing fibers.

Emergency Procedures: n/a

Methods and Materials for Containment: This material will settle out of the air. If concentrated on the ground, it can be scooped up for disposal or vacuumed as a non-hazardous waste. This material will sink and disperse along the bottom of waterways. It cannot be easily removed after it has become waterborne; however, it is not considered hazardous to water.

Cleanup procedure: The most efficient cleanup is to vacuum the fibers, sweeping will release the dust particles back into the air.



Section 7: Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes and skin. Wear suitable protective gear when cutting and working with the material. The use of respirators can reduce the risk of breathing in the dust during processing. Handle in accordance with good industrial hygiene and safety practices. It is recommended that one does not eat, drink or smoke in the area where processing takes place.

For large rolls use appropriate mechanical devices.

Conditions for Safe Storage: Store in a cool, dry, well ventilated location

Section 8: Exposure Controls/ Personal Protection

Exposure Controls:

This form of silica will partially transform to a cristobalite structure when subjected to steady temperatures above 1850° F (a form of crystalline silica-CAS No. 14464-46-1 , ACGIH TLV - 0.05mg/m³ (Respirable) ; OSHA PEL for cristobalite is 0.05 mg/m³, OSHA limits for other silica forms which falls under non-specific dust exposure - 5 mg/m³ / (%SiO₂+2) , respirable, and 15 mg/m³ / (%SiO₂+2) , total).

Appropriate Engineering Controls: Ventilation- local exhaust ventilation should be provided as necessary to maintain exposures below occupational exposure limits. Ventilation is especially important at high temperatures.

Individual Protection Measures: The following precautions are advisable during cutting and fabrication or other operations that could generate dust while using this material.

Respiratory protection: A properly fitted NIOSH approved N 95 series disposable dust respirator is recommended, when high level of dust is present, the level is above the exposure limits or if an irritation occurs. Use high efficiency air particulate type respiratory protection if working with material while exposed to steady temperatures above 1850deg. F. The 3M respirator model 8210 has been recommended.

Eye protection: Safety glasses, goggles, or face shields, as necessary.

Protective clothing: wear loose fitting long sleeve shirt and pants to protect areas from exposure to dust. The use of barrier creams can, in some instances, be helpful.

Medical conditions aggravated by exposure: persons with a history of chronic respiratory or skin conditions that are aggravated by mechanical irritants may be at increased risk of irritation or may experience their condition worsen.

Work/Hygiene Practices:

Handle in accordance with good industrial hygiene and safety practices.

- avoid unnecessary exposure to dust
- remove fiber from skin after exposure
- rubbing and scratching can force the fibers into the skin. The use of barrier creams in some instances can be helpful.
- use vacuum equipment to remove fibers and dusts from clothing, compressed air should never be used.
- recommended to wash work clothes separately from other washables.
- for professional use only, keep out of children's reach



Section 9: Physical and Chemical Properties

Appearance: light tan, satiny finish

Odor: none

Odor Threshold: n/a

pH: n/a

Melting: >1700°C (3100°F)

Initial Boiling Point: n/a

Flash Point: n/a

Evaporation: n/a

Flammability: none flammable

Upper/Lower Flammability: n/a

Vapor Pressure: n/a

Vapor Density: n/a

Relative Density: ~ 2.2 g/cm³

Solubility: very low solubility in water

Partition coefficient: n/a

Auto-ignition Temp: n/a

Viscosity: n/a

Section 10: Stability and Reactivity

Reactivity: n/a

Chemical Stability: Stable under normal conditions

Possibility of Hazardous Reaction: none reasonably foreseeable

Conditions to Avoid: none reasonably foreseeable

Incompatible Materials: Basic phosphates, hydrofluoric acid, some oxides and hydroxides

Hazardous Decomposition Products: Only sizing will start to decompose at 200° C. Decomposition products are CO, CO₂ and nitrogen oxides, silicone dioxides, formaldehyde with possibility of other small amounts of unknown products. Base fabric will partially transform to a cristobalite structure when subjected to steady temperatures above 1850°F.

Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information

Primary Routes of Exposure: eye contact, skin contact and inhalation may cause temporary irritation.

Potential Health Effects:

Inhalation: Dusts and fibers from this product may cause mechanical irritation of the nose, throat and respiratory track.

Skin Contact: Dusts and fibers from this fabric may cause temporary mechanical irritation to the skin.

Eye Contact: Dusts and fibers from this product may cause temporary mechanical irritations to the eyes.



Ingestion: Unlikely, however, ingestion of product may produce gastrointestinal irritation and disturbances.

Toxicity localized effects: Dust may cause mechanical irritation of the eyes and skin. Ingestion may cause transient irritation of throat, stomach and gastrointestinal tract. Inhalation may cause coughing, nose and throat irritation, and sneezing. This is irritation of a purely mechanical and temporary nature. The effects should subside after exposure is completed. People with pre-existing respiratory or skin issues that are aggravated by mechanical irritants may experience more irritation and their condition may worsen during use of the product.

Carcinogenicity:

| | | | | |
|---------------------------------------|-----------|---------|--------|---------|
| Silicone Dioxide, continuous filament | ACGIH- A4 | IARC-NO | NTP-NO | OSHA-NO |
|---------------------------------------|-----------|---------|--------|---------|

OSHA –NTP did not issue that high silica glass fibers are hazardous substances.

ACGIH (American Conference of Government Industrial Hygienists) has classified them as A4 (not classified as a carcinogen for man).

As before mentioned when the product is continuously exposed to temperatures above 1850 deg. F it may undergo partial conversion to cristobalite, a form of crystalline silica. The reaction occurs at the lining hot face. As a consequence, this material becomes more friable or brittle and special caution should take place in an attempt to minimize the generation of airborne dust. The amount of cristobalite present will depend on the temperature and length in service.

IARC has recently reviewed the animal, human and other relevant experimental data on silica in order to critically evaluate and classify the cancer risk. Based on its findings, IARC has now classified crystalline silica/ cristobalite as a Group 1 carcinogen. Crystalline silica inhaled in the form of quartz or cristobalite from industrial sources was classified as a carcinogenic to humans on the basis of a relatively large number of epidemiological studies that together provide sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica under the conditions specified. Crystalline silica is also listed by the NTP as a substance reasonably anticipated to be a carcinogen.

Section 12: Ecological Information

Ecotoxicity: n/a

Persistence and Degradability: n/a

Bioaccumulative potential: n/a

Mobility in Soil: n/a

This product is not biodegradable.

This product is not considered harmful to aquatic organisms nor to cause long-term adverse effects to the environment.



Section 13: Disposal Considerations

Disposal should be in accordance with relevant national and local regulations pertaining to the disposal of non-hazardous waste. Do not dump dust particles into sewers or anybody of water.

High silica glass fibres waste cannot be destroyed by incineration and can damage incinerators by the formation of a vitrified mass.

Section 14: Transport Information

UN Number: n/a

Shipping Information: Not regulated for transport.

Section 15: Regulatory Information

n/a

Section 16: Other Information

Revised: 4/2/2016

All information and recommendations are presented in good faith and are believed to be correct but no warranty, expressed or implied is made. All materials should be handled with reasonable caution.