

Material Safety Data Sheet _____

AMI-SIL[®] AS & CAS PSA SERIES

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Names/Synonyms	AMI-SIL [®] AS & CAS PSA/amorphous silica, with an acrylic adhesive and paper liner on one side, in various forms - cloth, tapes, etc.
Product Identification	AS & CAS PSA series.
Chemical Name/Synonyms	Continuous filament silicon dioxide (SiO ₂) with an acrylic adhesive and paper liner on one side/fibrous silica, amorphous silica chemical family with acrylic adhesive and paper liner on one side.
Manufacturer's Name	Auburn Manufacturing, Inc. P. O. Box 220 Mechanic Falls, ME 04256 207/345-8271
Date prepared	October 5, 1993
Revised	July 2, 1998 (update Section 7, Handling based on IARC reclassification)
Reviewed for accuracy & revised	August 2, 2002; added CAS products
Reviewed for content & accuracy	April 3, 2006
Reviewed for content & accuracy	March 19, 2009

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Hazardous Ingredients</u>	<u>Weight %</u>	<u>OSHA-PEL</u>	<u>ACGIH-TLV</u>	<u>OTHER</u>
Silicone dioxide, continuous filament	≥ 70	a.	10 mg/ m ³ . 8-hr TWA	none known

a. OSHA has not established a specific PEL for fibrous silicone dioxide (amorphous silica). It is considered to be a "particulate not otherwise regulated" (PNOR) and is covered under the OSHA nuisance dust PEL's of 5 mg/m³ for the respirable dust fraction and 15 mg/m³ for the total dust fraction for an 8-hr TWA (Time Weighted Average). Chemically, AMI-SIL is amorphous silica which has an OSHA limit of 20 mppcf or 80 mg/m³.

<u>Nonhazardous Ingredients</u>	<u>Weight %</u>	<u>OSHA-PEL</u>	<u>ACGIH-TLV</u>	<u>OTHER</u>
Sizing/bound water	≤ 8	-----	none established-----	-----
Acrylic Adhesive	4 - 12	-----	not known-----	-----
Paper liner	8 - 16	-----	not known-----	-----

Material Safety Data Sheet _____

AMI-SIL® AS & CAS PSA SERIES

3. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF EXPOSURE: Inhalation and skin contact.

HEALTH HAZARDS (Including acute and chronic effects and symptoms of overexposure):

ACUTE: Inhalation: Inhalation of dusts and fibers may result in irritation of the upper respiratory tract (mouth, nose and throat).

Skin Contact: Skin contact with dusts and fibers may produce itching and temporary mechanical irritation.

Eye Contact: Eye contact with fibers and dusts may produce temporary mechanical irritation.

Ingestion: Temporary mechanical irritation of the digestive tract. Observe individual. If symptoms develop, consult a physician.

CHRONIC: See carcinogenicity section below. There are no known health effects associated with chronic exposure to this product.

CARCINOGENICITY:

Hazardous Ingredients: Listed as carcinogen by: ACGIH IARC NTP OSHA

Silicone dioxide, continuous filament	NA	NA	NA	NA
--	----	----	----	----

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 for worsening their condition from exposure during use of the product.

4. FIRST AID MEASURES

Inhalation: Move individual to fresh air. Seek medical attention if irritation persists.

Skin Contact: Wash with mild soap and running water. Use a washcloth to help remove fibers. To avoid further irritation do not rub or scratch irritated areas. Rubbing or scratching may force fibers into the skin. Seek medical attention if irritation persists.

Eye Contact: Flush eyes with flowing water for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion: N. A. (Not Applicable)

Material Safety Data Sheet _____

AMI-SIL[®] AS & CAS PSA SERIES

5. FIRE FIGHTING MEASURES

Flash Point (°F): NA (Not Applicable)

Auto Ignition Temperature (°F): NA

Flammability Limits (%): LEL: NA UEL: NA

Extinguishing Media: Water, foam, carbon dioxide, dry chemical

Special Fire -Fighting Instructions: In a sustained fire, self contained breathing apparatus should be worn.

Unusual Fire and Explosion Hazards: None known.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS (Use Appropriate Safety Equipment): For solid product, not applicable. For dusts and fibers generated during fabrication vacuum up and containerize.

7. HANDLING, STORAGE AND DISPOSAL

HANDLING: See Section 8.

The toxicologic data indicate that these materials should be handled with caution. The handling practices described in Section 8 of this MSDS must be strictly followed.

Product which has been in service at elevated temperature (> 1800° F) may undergo partial conversion to cristobalite, a form of crystalline silica. This reaction occurs at the lining hot face. As a consequence, this material becomes more friable (brittle); special caution must be taken to minimize 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 causing potential. Based on its review, 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 ***carcinogenic to humans*** on the basis of a relatively large number of epidemiological studies that together provided ***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.

Material Safety Data Sheet _____

AMI-SIL® AS & CAS PSA SERIES**7. HANDLING, STORAGE AND DISPOSAL (CONT)**

HANDLING: See Section 8.

Special care should be taken when working with "used" material to minimize the generation of dust. The OSHA permissible exposure limit (PEL) for cristobalite is 0.05 mg/m³ (resp.). The ACGIH threshold limit value (TLV) for cristobalite is 0.05 mg/m³ (resp.). (ACGIH 1989 - 90). If exposure limits are exceeded or if irritation is experienced, NIOSH approved respiratory protection should be worn. NIOSH approved respirator for particulates with a TLV of less than 0.05 mg/m³ is generally acceptable, except that supplied air respirators are required for high airborne dust concentrations.

STORAGE: Store in a clean, dry area. Keep containers closed.

DISPOSAL: Dispose in accordance with federal, state and local regulations as a solid nonhazardous waste.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION: General dilution ventilation and/or local exhaust ventilation should be provided, as necessary, to maintain exposures below PEL's or TLV's. **Adequate ventilation must be provided at elevated temperatures.** The base silica material is noncombustible; however, at temperatures above 250°F, the coating may generate some light steam and/or smoke for a brief period which may require local ventilation and/or exhaust.

RESPIRATORY PROTECTION: A properly fitted NIOSH/MHSA approved disposable dust respirator such as the 3M model 8210 or model 9900 (in high humidity environments) or equivalent should be used when: high dust levels are encountered; the level of fibers in the air exceeds the OSHA permissible exposure limits; or if irritation occurs. Use respiratory protection in accordance with your company's respiratory protection program and OSHA regulations under 29 CFR 1910.134.

EYE PROTECTION: Safety glasses, goggles or face shields should be worn whenever silica materials are being handled.

PROTECTIVE CLOTHING: Wear loose fitting, long sleeved shirt that covers to the base of the neck, and long pants. Skin irritation from exposure to silica fibers is known to occur chiefly at pressure points such as around the neck, wrist and waist. Wear gloves when handling product.

Material Safety Data Sheet

AMI-SIL® AS & CAS PSA SERIES

8. EXPOSURE CONTROLS / PERSONAL PROTECTION(CON'T)

WORK/HYGIENIC PRACTICES: Handle in accordance with good industrial hygiene and safety practices:

- = Avoid unnecessary exposure to dusts and fibers
- = Remove fibers from skin after exposure
- = Be careful not to rub or scratch irritated areas. Rubbing or scratching may force the fibers into the skin. The fibers should be washed off. Use of barrier creams can, in some instances, be helpful.
- = Use vacuum equipment to remove fibers and dusts from clothing. **COMPRESSED AIR SHOULD NEVER BE USED.** Always wash work clothes separately and wipe out the washer/sink in order to prevent loose fibers from getting on other clothes.
- = Keep the work area clean of any dusts and fibers generated during fabrication. Use vacuum equipment to clean up dusts and fibers. Avoid sweeping or using compressed air as these techniques resuspend dusts and fibers into the air.
- = Have access to safety showers and eye wash fountains.
- = For professional use only. **Keep out of children's reach.**

9. PHYSICAL AND CHEMICAL PROPERTIES

MELTING POINT (Softening): NM (Not Measured)

BOILING POINT (°C): NA (Not Applicable)

SPECIFIC GRAVITY : NM

PERCENT VOLATILE: NA

VAPOR PRESSURE (mm Hg): NA

VAPOR DENSITY (Air = 1): NA

EVAPORATIVE RATE (Ethyl Ether = 1): NA SOLUBILITY IN WATER: Not soluble

APPEARANCE AND ODOR: White/off-white/tan colored solid, adhesive and release liner on one side, with no odor; AR series has an orange color.

pH: NA

Material Safety Data Sheet

AMI-SIL[®] AS & CAS PSA SERIES

10. STABILITY AND REACTIVITY

STABILITY (Conditions to Avoid): Product is stable.

INCOMPATIBILITY (Materials to Avoid): Basic phosphates, hydrofluoric acid, some oxides and hydroxides.

HAZARDOUS DECOMPOSITION PRODUCTS: Sizings, adhesive, paper or binders may decompose in a fire. Primary decomposition products include carbon monoxide, carbon dioxide, other hydrocarbons and water.

HAZARDOUS POLYMERIZATION: Will not occur.

To the best of our knowledge, the information contained herein is accurate. The information provided is based upon data furnished by our suppliers. However, neither Auburn Manufacturing, Inc. nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. While believed to be reliable, the information or products are intended for use by skilled persons at their own risk. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.