

MATERIAL SAFETY DATA SHEET

FUSED QUARTZ PRODUCTS Tubing, Rod, Crucibles, Solids

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Momentive Performance Materials
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EMERGENCY TELEPHONE NO.:
24 hr. CHEMTREC: 1-800-424-9300

TRADE NAME:
Fused Quartz Products

MSDS NUMBER: 430

CHEMICAL NAME: Amorphous Fused Silica

SYNONYMS: Vitreous silica, fused quartz,
quartz glass

PREPARED BY:
Momentive Performance Materials

DATE OF ISSUE / LATEST REVISION:
October 1, 2001 / October 11, 2005

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION! This product meets the requirements of an article under OSHA regulations 29 CFR 1910.1200. Dusts may cause skin and eye irritation. Solid quartz shapes.

POTENTIAL HEALTH EFFECTS:

Eye: Direct contact with product or dusts may cause mechanical irritation.

Skin Contact: Dusts may cause mechanical irritation.

Skin Absorption: Not absorbed through intact skin. Not an expected route of exposure.

Ingestion: Not an expected route of exposure.

Inhalation: Not an expected route of exposure. Inhalation of dusts may cause respiratory tract irritation.

Medical Conditions Aggravated by Exposure: Pre-existing skin or respiratory disorders.

Chronic & Carcinogenicity: Repeated or prolonged inhalation of high concentrations of amorphous silica dusts may result in silicosis. Amorphous fused silica is not a known or suspected carcinogen. Dusts may possibly aggravate pre-existing lung and skin disorders. See Section 11. Toxicological Information for more information.

Routes of Exposure: Skin, respiratory tract (dusts).

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS #</u>	<u>Percent</u>	<u>ACGIH (TLV)</u>	<u>OSHA (PEL)</u>	<u>Units</u>
Amorphous fused silica	60676-86-0	100	0.1 (R)	0.1 (R)	mg/M ³

R = Respirable Dust

PEL - OSHA Permissible Exposure Limit; TLV - ACGIH Threshold Limit Value; TWA - Time Weighted Average
OSHA revoked the Final Rule Limits of January 19, 1989 in response to the 11th Circuit Court of Appeals decision (AFL-CIO v. OSHA) effective June 30, 1993. See 29 CFR 1910.1000 (58 FR 35338).

4. FIRST AID MEASURES

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If breathing is difficult give oxygen. Get medical attention if irritation persists.

Eyes: Do not rub eyes. Flush with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.

Skin: Wash skin gently with soap and water and remove contaminated clothing. Get medical attention if irritation persists. Remove any contaminated clothing and launder thoroughly before reuse.

Ingestion: Do not induce vomiting. If large amounts of the product are ingested, give 2 glasses of water. Never give anything by mouth to an unconscious person. Seek medical attention.

5. FIRE FIGHTING MEASURES

FLASH POINT: NA **LEL:** NA **UEL:** NA **AUTO IGN. TEMP.:** NA

Product is non-flammable. Product in or near fires should be cooled with a water spray or fog. Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus (SCBA) with full face mask and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Do not walk through spilled material. Wear hand protection and pick up large pieces and place in container for disposal. Wet mopping or vacuuming of dusts with a unit that contains a HEPA filter is recommended. Shovel or wipe up into a container for later disposal. Avoid cleanup procedures that may result in water pollution. Personal safety and exposure recommendations described elsewhere in this data sheet apply to exposure during clean up of spilled material. See Section 13.

7. HANDLING AND STORAGE

Storage: Store in original containers away from incompatibles.

Handling: Avoid contact with the eyes and skin. Avoid generating and breathing dust. Use with adequate local exhaust ventilation. Wear protective clothing to minimize skin contact. Remove contaminated clothing and clean before reuse. Wash thoroughly after work using soap and water. Keep away from children.

Empty Containers: Product packaging may contain product residue. Do not reuse.

8. EXPOSURE CONTROL - PERSONAL PROTECTION

Engineering Controls: Ventilation and other forms of engineering controls are the preferred means for controlling exposures. The need for local exhaust ventilation should be evaluated by a professional industrial hygienist. Local exhaust ventilation systems should be designed by a professional engineer.

Respiratory: If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29 CFR 1910.134).

Eye Protection: Safety glasses with side shields.

Protective Gloves: Cut or puncture-proof gloves for handling of broken pieces. None required for intact pieces.

General: Avoid contact with broken or sharp edges.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & PHYSICAL STATE: Solid quartz shapes

MELT POINT: 1710°C (3110°F)

VAPOR DENSITY (AIR=1): Not Applicable

OCTANOL/WATER PARTITION COEFFICIENT: Not Determined

VAPOR PRESSURE: Not Applicable

EVAPORATION RATE BuOAC = 1: Not Applicable

ODOR: None

SPECIFIC GRAVITY/BULK DENSITY: 2.65

% VOLATILE BY VOLUME: Not volatile

BOILING POINT: Not Determined

% SOLUBILITY (H₂O): Insoluble

pH: Not Applicable

10. STABILITY AND REACTIVITY

Stability & Polymerization: Product is stable. Hazardous polymerization will not occur.

Incompatibility (conditions to avoid): Hydrofluoric acid.

Hazardous Decomposition Products: Decomposition products may include carbon monoxide, carbon dioxide, and silicone dioxide.

Conditions to Avoid: Grinding, sawing, sanding, abrading, or otherwise dispersing in air. Fused or amorphous silica may become crystalline if held at high temperatures for extended periods of time.

11. TOXICOLOGICAL INFORMATION

Exposure to this product, as sold and intact, will not result in exposure to amorphous fused silica. The following information is provided for exposure to dusts from grinding, sawing, sanding, abrading, or otherwise destroying the integrity of the fused silica.

Acute Oral Toxicity

3160 mg/kg LD₅₀ (rat) – non-toxic.

Ingestion of dusts may cause mechanical irritation of the gastrointestinal tract.

Acute Dermal Toxicity

No information available.

Acute Inhalation Toxicity

There is insufficient industrial experience with the fused form to determine its fibrogenic hazard. Exposure to dusts of amorphous silica for 6 months to 30 years may result in silicosis with symptoms of cough, chest pain, dyspnea, tachypnea, marked weakness and weight loss. This pulmonary insufficiency may be characterized by diffuse nodular fibrosis, distortion of bronchi, diminished chest expansion, decreased vital capacity, and compensatory and bullous emphysema. As the disease progresses, cor pulmonale, cardiorespiratory failure and death may occur.

Acute Dermal Irritation

Dusts or particles may cause mechanical irritation.

Acute Ocular Irritation

Dusts or particles may cause mechanical irritation.

Sensitization

No information available.

Carcinogenicity

IARC Group 3 – Human Inadequate Evidence, Animal Inadequate Evidence

Mutagenicity

No information available.

12. ECOLOGICAL INFORMATION

No ecotoxicity data is available. Product is inert. It is not expected to present an environmental hazard.

13. DISPOSAL CONSIDERATIONS

As sold, product is considered non-hazardous. Dispose in accordance with all local, state, and federal or provincial regulations. Empty containers may contain product residue. Do not reuse.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation (DOT)

Proper Shipping Name: Not Regulated

Hazard Class: Not applicable

UN/NA Code: Not applicable

Packing Group: Not applicable

15. REGULATORY INFORMATION

U.S. Regulations

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA) Reportable Quantity:

This product is not subject to CERCLA reporting requirements. Report spills required under federal, state and local regulations.

Clean Water Act (CWA):

This product does not contain any substances regulated as pollutants under the Clean Water Act (40 CFR 122.21 and 122.42 with reference to Appendix D, Tables II-V).

Toxic Substances Control Act (TSCA): All components of this product are listed or exempt from listing on the TSCA inventory.

OSHA Hazard Communication Categories: None

Superfund Amendments and Reauthorization Act (SARA) Title III Information:
SARA Section 311/312 Hazard Categories: None

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313: None

California Proposition 65:

This product contains no chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

16. OTHER INFORMATION

Not Est. = Not Established

NA = Not Applicable

NFPA Ratings:

Health: 1 Flammability: 0 Reactivity: 0

HMIS Ratings:

Health: 0 Flammability: 0 Reactivity: 0

Revision Indication

This MSDS has been revised in the following section(s):

October 11, 2005

All sections revised for new MSDS format.

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