

Material Safety Data Sheet

This document has been prepared to comply with
OSHA's Hazard Communication Standard,
29 CFR 1910.1200.

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Boral
Material
Technologies



Classification: ADMIXTURE

IDENTITY (As used on label and list)

Boral Ultra Pozz D

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I - Identity Information

Chemical Name Condensed Silica Fume	Emergency Telephone Number 1 (800) 424-9300 (CHEMTREC)
Chemical Family Amorphous Silica	Telephone Number for Information (210) 349-4069
Date Prepared 08-Sep-92	Date Revised 07-Jul-00

Section II - Hazardous Ingredients

Hazardous Component (Specific Chemical identity, Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended
Silica, Amorphous (SiO ₂) CAS# 7631-86-9.	80 mg/m ³ / %SiO ₂ (total dust)	10 mg/m ³ * (total dust)	NIOSH: 6 mg/m ³

1. Composition is variable depending on coal source and power plant characteristics. 2. This product does not have a significant respirable particle size distribution. However, various material handling operations may produce dust with respirable particles. 3. Materials present at >0.5% and <12% and not listed in OSHA or ACGIH include Potassium Oxide and Carbon.

* Also subject to alternative TLV for respirable particulates not otherwise classified (NOC) = 3mg/m³.

Section III - Physical/Chemical Characteristics

Boiling Point (°F) 2250°	Specific Gravity (H ₂ O=1) 2.20 ± .01	NFPA 	0 = Minimum hazard 1 = Slight hazard 2 = Moderate hazard 3 = Serious hazard 4 = Severe hazard
Vapor Pressure (mm Hg.) NA	Percent Volatile by Mass (%) 50%		
Vapor Density (AIR=1) NA	Evaporation Rate (Butyl Acetate=1) NA		
Solubility in Water insoluble	pH NA		
Appearance and Odor Light to dark gray powder, odorless.			

Section IV - Fire and Explosion Hazard Data

Flash Point NA	Flammable Limits: LEL NA	UEL NA
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Extinguishing Media
Non-Flammable.

Special Fire Fighting Procedures
NA

Unusual Fire and Explosion Hazards
NA

Section V - Reactivity Data

Stability	Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>	Conditions to Avoid	Upon contact with hydrofluoric acid, silicon tetra fluoride (a toxic substance) is formed. Prolonged heating above 930°F will convert amorphous silica to the crystalline phases.
Incompatibility (Materials to Avoid) Hydrofluoric Acid & Fluorides			

Hazardous Decomposition or Byproducts This product does not decompose.

Hazardous Polymerization	May Occur <input type="checkbox"/> Will Not Occur <input checked="" type="checkbox"/>	Conditions to Avoid	NA
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Section VI - Health Hazard Data

Route(s) of Exposure:	Inhalation? <input checked="" type="checkbox"/>	Skin? <input checked="" type="checkbox"/>	Ingestion? <input checked="" type="checkbox"/>
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Health Hazards (Acute and Chronic)

Prolonged exposure to high concentrations of microsilica dust may irritate the eyes, nose and throat. Prolonged exposure may also cause drying of the skin.

Carcinogenicity:	NA	NTP? <input type="checkbox"/>	IARC Monographs? <input type="checkbox"/>	OSHA Regulated? <input type="checkbox"/>
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Signs and Symptoms of Exposure

NA

Medical Conditions Generally Aggravated by Exposure

NA

Emergency and First Aid Procedures

SKIN: Wash with soap and water. Apply moisturizing cream or lotion to avoid skin dryness.

EYES: Rinse eyes with water for at least 15 minutes or until no visible particles remain in the eye.

INHALATION: Remove from dusty area to fresh air.

NOTE TO PHYSICIAN: Microsilica is of low toxicity. Acute poisoning caused by handling microsilica is not relevant.

Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

Contain leaks or spills. Transfer spilled material into an appropriate solid waste container. Collect spilled material using a vacuum device or wash down with water. Do not use compressed air on the dried material. Wear appropriate Personal Protective Equipment (see Section VIII).

Waste Disposal Method

Dispose of according to applicable federal, state and local regulations for non-hazardous solid waste materials. No special precautions are necessary during repackaging.

Precautions to Be Taken in Handling and Storing

Avoid handling procedures that generate airborne dust. Store in closed containers. Protect from freezing. Store away from hydrofluoric acid and fluorides. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep out of reach of children.

Labeling

WARNING: Normal safety precautions are advised when handling these materials. Dampen with a water mist to control airborne dust and use appropriate personal protective equipment to avoid inhalation and exposure to eyes, skin and mucus membranes. Excessive exposure to these materials may cause irritation of the eyes, skin and mucus membranes and chronic exposure could lead to fibrotic disease of the lungs. This product contains silica, which has been identified as a carcinogen. If contact is made, areas affected should be thoroughly flushed with water. Medical attention is advised in case of ingestion, inhalation or eye contact. A Material Safety Data Sheet is on file. Call 210-349-4069 and ask for the Safety Manager.

Section VIII - Control Measures

Respiratory Protection (Specify Type)

If airborne dust is present, use NIOSH/MSHA 21-C respirator the properly fits the user.

Type of Ventilation	Local Exhaust <input type="checkbox"/>	Special <input checked="" type="checkbox"/>	If Special or Other specify: Refer to the current edition of the ACGIH document "Industrial Ventilation, A Manual of Recommended Practices" for details.
	Mechanical (General) <input type="checkbox"/>	Other <input type="checkbox"/>	

Protective Gloves
Rubber or Synthetic.

Eye Protection

Recommend Safety goggles or safety glasses. Eye wash stations should be readily accessible.

Other Protective Clothing or Equipment

Clothing that contacts the skin should be changed daily. Barrier creams may be required if skin drying is noted.

Work/Hygienic Practices

Use good hygiene practices and observe above precautions.

The information and recommendations set forth herein are based on data we have in our possession and we have reason to believe is accurate. It is, however, the user's responsibility to determine the safety, toxicity, and suitability for his own use of the herein described product. Because the actual use by others is beyond our control, Boral Material Technologies Inc. makes no warranty expressed or implied regarding accuracy of the data or the results to be obtained from the use thereof.