

MATERIAL SAFETY DATA SHEET

Section 1: Product/Company Information

Identity: JIS Z8901 Class 1, 2 and 3, Quartz, Silicon Dioxide

Importer: Powder Technology Inc. Emergency Number: (952) 894-8737
14331 Ewing Avenue S. Number for Info: (952) 894-8737
Burnsville, MN 55306 Date Updated: 16 November 2007

Manufacturer: Appie (The Association of Powder Process Industry & Engineering, Japan)

Section 2: Emergency and First Aid

Eyes: Immediately flush eye thoroughly with water. Get medical attention if irritation persists.

Skin: N/A

Inhalation: Remove person to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. Seek medical help if coughing and other symptoms do not subside.

Ingestion: Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician if discomfort is experienced.

Section 3: Composition Information

Typical chemical composition:

Component Material	Chemical Formula	Typical %, by weight	CAS#
Crystalline Silica (Quartz)	SiO ₂	95% Min	14808-60-7
Aluminum Oxide	Al ₂ O ₃	These four components makeup 5% or less of material	1344-28-1
Iron Oxide	Fe ₂ O ₃		1309-37-1
Titanium Oxide	TiO ₂		13463-67-7
Magnesium Oxide	MgO		1309-48-4

All components are included on the TSCA Inventory.

Section 4: Hazardous Ingredients/Identity Information

This product contains free silica. Inhalation of dust may be harmful to your health. NIOSH has recommended a PEL of 0.05 mg/m³ as determined by a full shift sample up to 10 hours working day, 40 hours per week.

H.M.I.S. ratings: Health – * Flammability – 0 Reactivity - 0

* see Section 5 of this MSDS for further information on health effects

Section 5: Hazard Identification

Potential Health Effects: Potential health effects may vary depending upon the duration and degree of exposure. To reduce or eliminate health hazards associated with this product, use exposure controls or personal protection methods as described in Section 12.

Eye Contact: (Acute/Chronic) Exposure to airborne dust may cause immediate or delayed irritation or inflammation of the cornea.

Inhalation: (Chronic) Inhalation exposure to free silica may cause delayed lung injury, including silicosis, a disabling and potentially fatal lung disease, and/or cause or aggravate other lung diseases or conditions.

Carcinogenic Potential: This product contains free silica, which IARC classifies as a known human carcinogen. The NTP, in its ninth Annual Report on Carcinogens, classified “silica, crystalline (respirable)” as a known carcinogen.

Section 6: Accidental Release Measures

Use clean-up methods that do not disperse dust into the air. Avoid inhalation of dust and contact with eyes. Use exposure control and personal protection methods as described in Section 12.

Section 7: Physical/Chemical Data

Boiling Point:	2230° F
Melting Point:	1710° F
Specific Gravity (H₂O = 1.0):	2.60 – 2.70
Vapor Pressure:	Not applicable
Solubility in Water:	Insoluble
Appearance:	Light Brown, White
Odor:	No Odor
Physical State:	Solid
Vapor Density:	Not applicable

Section 8: Fire and Explosion Hazard Data

Flash Point: None

Lower Explosive Limit: None

Auto ignition Temperature: Not combustible

Upper Explosive Limit: None

Flammable Limits: N/A

Special Fire Fighting Procedures: None

Extinguishing Media: Not Combustible

Unusual Fire and Explosion Hazards: None

Hazardous Combustion Products: None

Section 9: Stability and Reactivity Data

Stability:

Product is stable

Incompatibility (Materials to Avoid):

Strong oxidizing agents

Hazardous Decomposition:

Will not occur

Hazardous Polymerization:

Will not occur

Section 10: Handling and Storage

Handle and store in a manner so that airborne dust does not exceed applicable exposure limits. Use adequate ventilation and dust collection. Use exposure control and personal protection methods as described in Section 12.

Section 11: Toxicological Information

Conditions aggravated by exposure: Eye disease, Skin disorders and Chronic Respiratory conditions.

Section 12: Exposure Control/Personal Protection

Respiratory Protection: Use local exhaust or general dilution ventilation to control dust levels below applicable exposure limits. Use appropriate NIOSH approved respiratory protection for respirable crystalline silica.

Eye Protection: Wear safety glasses with side shields or goggles to avoid contact with the eyes. In extremely dusty environments and unpredictable environments, wear tight-fitting unvented or indirectly vented goggles to avoid eye irritation or injury

Section 13: Disposal Considerations

All disposal methods must be in accordance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterization and compliance with applicable laws are the responsibility solely of the waste generator.

Section 14: Transportation Data

Quartz is not hazardous under U.S. DOT or TDG regulations.

Section 15: Other Regulatory Information

Status under US OSHA Hazard Communications Rule 29 CFR 1910.1200:

Silica sand is considered a hazardous chemical under this regulation and should be included in the employer's hazard communication program.

Status under CERCLA/Superfund, 40 CFR 117 and 302:

Not listed

Hazard Category under SARA (Title III), Sections 311 and 312:

Silica sand qualifies as a hazardous substance with delayed health effects.

Status under SARA (Title III), Section 313:

Not subject to reporting requirements under Section 313

Status under Canadian Environmental Protection Act:

Not listed.

Canadian WHMIS Classification:

Class D, Division 2, Subdivision A (A very toxic material causing other toxic effects).

European Inventory of Commercial Chemical Substances:

Listed on the EINECS Inventory or exempt from notification requirements. EINECS number for Quartz is 231-545-4.

Section 16: Other Information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. It is the user's obligation to determine the conditions of safe use of this product.