

MATERIAL SAFETY DATA SHEET

Section 1: Product/Company Information

Identity: Aramco Test Dust

Mfg. Name: Powder Technology Inc.
14331 Ewing Avenue S.
Burnsville, MN 55306

Emergency Number: (952) 894-8737
Number for Info: (952) 894-8737
Date Updated: 21 Jun 2014

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:

90% Arizona Test Dust

Chemical Ingredient	CAS Number	Percent of Weight
SiO ₂	14808-60-7	68-76
Al ₂ O ₃	1344-28-1	10-15
Fe ₂ O ₃	1309-37-1	2-5
Na ₂ O	1313-59-3	2-4
CaO	1305-78-8	2-5
MgO	1309-48-4	1-2
TiO ₂	13463-67-7	0.5-1.0
K ₂ O	12136-45-7	2-5

Loss on Ignition 2 - 5 %

All components of this material are included on the TSCA Inventory.

10 % Salt

Chemical Ingredient	CAS Number	Percent of Weight
Sodium Chloride	7647-14-5	99 - 100

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.
- **Skin Contact:** may irritate damaged skin.
- **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:** Arizona Test Dust: 4040^o F, Sodium Chloride: 2575^o F
- **Specific Gravity (H₂O = 1.0):** Arizona Test Dust: 2.65, Sodium Chloride: 2.16
- **Vapor Pressure:** Not applicable, Sodium Chloride: 1.0 @ 1589^oF
- **Solubility in Water:** Arizona Test Dust is insoluble
- **Sodium Chloride solubility:** 36g/100cc water @ 20C (68F).
- **Appearance:** Brown, Light Brown, Reddish Brown.
- **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 Acids
- **Hazardous Decomposition:** Arizona Test Dust: Will not occur, Sodium Chloride: When heated to above 1474^oF will emit toxic fumes of chloride and sodium oxide.
- **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. Minimize dispersal of dust into the air. 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

Arizona Test Dust and Sodium Chloride 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.

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.