



SECTION I

TRADE NAME

OPTICAL POWDER "ST", CRYSTAL FINISHING POWDER "ST", ALUMINUM OXIDE POWDER "ST"

CHEMICAL NAME

Fused Aluminum Oxide

SECTION II CHEMICAL COMPOSITION

| CHEMICAL NAME | % | OSHA REGULATED (Y/N) | CAS # | PERMISSIVE EXPOSURE LIMIT | ACGIH TLV | OSHA CARCINOGEN (Y/N) |
|--|--------|----------------------|------------|--|---|-----------------------|
| Aluminum Oxide (Non-Fibrous) Al ₂ O ₃ | 92 | Y | 1344-28-1 | 15 mg/m ³ | 10 mg/m ³ | N |
| Titanium Dioxide (TiO ₂) | 3 | Y | 13463-67-7 | 15 mg/m ³ | 10 mg/m ³ | N |
| Silicon Dioxide (SiO ₂) | 2 | N | 7631-86-9 | -- | 6 mg/m ³ | N |
| Crystalline Silica (SiO ₂) | 0-0.16 | Y | 14808-60-7 | <u>30 mg/m³</u> % SiO ₂ + 2 | 0.3 mg/m ³ 1 mg/m ³ (resp) | Y |
| Other oxides less than 1 % (ZrO ₂ , MgO, NaO ₂ , K ₂ O, CaO, MnO, Fe ₂ O ₃) | | | | | | |

SECTION III PHYSICAL DATA

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| MELTING POINT | 2038 C |
| HARDNESS | 9 Mohs, 2100 Knoop |
| SOLUBILITY | Insoluble in water and organic solvents |
| pH | 7-8 |
| SPECIFIC GRAVITY | 3.97 gm/cc |
| APPEARANCE AND ODOR | Light brown, tan, odorless, solid, blocky, dense, angular crystal |
| FLAMMABILITY | Non-flammable, does not support combustion, not an explosion hazard |
| STABILITY | Stable, polymerization will not occur, does not react with water, air, heat or strong oxidizers |
| BULK DENSITY [RANGE] | .903-1.672 gm/cm ³ Specific bulk density available upon request |

Effective date 01-01-08

SECTION IV HEALTH, FIRST AID & MEDICAL DATA

| PRIMARY ROUTES OF ENTRY | ACUTE AND CHRONIC HEALTH EFFECTS & EFFECTS OF OVEREXPOSURE |
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| INHALATION | <i>ACUTE:</i> May cause coughing and shortness of breath <i>CHRONIC:</i> Crystalline silica may cause lung scarring which may lead to a progressive massive fibrosis and chronic lung injury (silicosis) |
| INGESTION | No known adverse effects, but ingestion not recommended. |
| SKIN CONTACT & ABSORPTION | Not absorbed through the skin, may cause irritation |
| EYE | May irritate eyes |
| OTHER POTENTIAL HEALTH RISKS | IARC Monographs on the evaluation of the carcinogenic risk of chemicals to humans (Vol. 42, 1987) concludes that there is sufficient evidence for the carcinogenicity of crystalline silica to experimental animals, and there is limited evidence of the carcinogenicity of crystalline silica to humans, IARC Class 2A |
| FIRST AID | Remove to fresh air, obtain medical assistance if needed. For dust in the eyes, wash with large amounts of water and seek medical attention if irritation persists. |

SECTION V SAFE HANDLING & USE

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| HANDLING PROCEDURES | Use with adequate ventilation to meet exposure limits. When exposure is excessive, NIOSH approved respiratory equipment is recommended. |
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SECTION VI REGULATORY INFORMATION

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| TSCA | The chemical components of this product are registered under the Toxic Substances Control Act (Title 40 CFR part 710). |
| CERCLA | This substance contains no ingredients listed on the extremely hazardous CERCLA lists. |
| EPCRA (Sections 302, 304, 311, 312 and 313) | The reportable chemical substances in this product are regulated by OSHA 29 CFR 1910.1200 and are subject to reporting requirements. |
| DOT | Not regulated as a hazardous substance. |

The information contained on this product data/specifications sheet reflects the latest information and data that we have on hazards, properties and handling of this product under the recommended conditions of use. Any modification of product use or method of application is the responsibility of the user. Seller makes no other warranty or representation of any kind, expressed or implied, concerning the product. This information is intended to be in compliance with the OSHA Hazard Communication Standard.