

CRYSTAL MARK, INC.

A SWAN TECHNOLOGIES CORPORATION
613 Justin Avenue • Glendale, California 91201-2396
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MATERIAL SAFETY DATA SHEET

Flammability: 0 Health: 0
Reactivity: 0 Hazard: 0
Rating consistent with NFPA code.

SECTION I - PRODUCT IDENTIFICATION

Trade Name: Micrograded Alundum Aluminum Oxide

Date Prepared: 03-28-05

Manufacturer's Name: CRYSTAL MARK, INC.
613 Justin Avenue
Glendale, CA 91201

Phone Number: (818) 240-7520

SECTION II - INGREDIENTS

Chemical Names: Refractory Oxide (Al₂O₃) @ 96.3%
Titanium Oxide (TiO₂) @ 2.8%
Impurities @ 1.5% (SiO₂ + Fe₂O₃ + CaO + MgO + Na₂O + K₂O)

CAS Numbers: 1344-28-1 (Al₂O₃), 13463-67-7 (TiO₂)

SECTION III - PHYSICAL DATA

Boiling Point: NAIF **Melting Point:** 1900°C **Specific Gravity:** 3.95
Vapor Pressure: NAIF **Vapor Density:** NAIF **Evaporation Rate (Butyl Acetate=1):** NAIF
Solubility in Water: Insoluble **Solubility in Alcohol:** Insoluble
Appearance and Odor: Granular, gray brown to red brown, no odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: NAIF **Auto Ignition Temperature:** N/A
Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Water Spray, N/A; Carbon Dioxide, N/A; Foam, N/A; Dry Chemical, N/A
Special Firefighting Procedures: None
Unusual Fire and Explosion Hazards: None

SECTION V - HEALTH HAZARD DATA

Effects of Overexposure [*Conditions to Avoid*]:

Inhaled - May cause coughing, shortness of breath.

Exposure Limits in Air - (ACGIH) TLV 10mg/m³ (OSHA) PEL: 15mg/m³

Contact with Skin and Eyes - May irritate eyes

Absorbed through Skin - Not absorbed, may cause abrasion.

Swallowed - No known adverse effects, ingestion not recommended.

Health Effects or Risk from Exposure:

Acute - May cause shortness of breath.

Chronic - May affect breathing capacity.

Emergency and First Aid Procedures:

Eye Contact - Wash with large amount of water, obtain first aid if needed.

Skin Contact - Obtain first aid if needed.

Inhaled - Remove to fresh air, apply artificial respirator if needed. Obtain medical assistance.

Swallowed - Obtain first aid if needed.

Suspected Cancer Agent: No

SECTION VI - REACTIVITY DATA

Stability: STABLE

Conditions to avoid: NAIF

Incompatibility (materials to avoid): NAIF

Hazardous Polymerization: Will not occur

Hazardous Decomposition Products: NAIF

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled: Normal clean up procedures, respirators may be required.

Waste Disposal Method: Disposal must be made in accordance to Federal, State and Local Regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: As needed, approved dust respirator, see OSHA 29CFR1910.134

Ventilation: Handle with adequate ventilation for nuisance dust.

Protective Gloves: As desired

Eye Protection: Recommended, see OSHA 29CFR1910.133

Other Protective Equipment: NAIF

Protective Measures During Maintenance of Contaminated Equipment: See sections VII and VIII

SECTION IX - TRANSPORTATION REGULATORY REQUIREMENTS

Not regulated by D.O.T.

NAIF = No applicable information found N/A = Not Applicable

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