MATERIAL SAFETY DATA SHEET

Section 1. Identification Company Name: AGSCO Corporation Emergency number: 847-520-4455 Address: 160 W. Hintz Road Information number: 847-520-4455 Wheeling, Illinois 60090-5755 Date prepared: 09-26-08 **Aluminum Oxide Brown** Product Name: Section 2. Composition/Identity Information ACGIH - TLV CAS Number OSHA - PEL Component Percent 10 mg/m³ TWA Aluminum Oxide 1 15 mg/m^3 1344-28-1 92 - 99 $10 \text{ mg/m}^3 \text{ TWA}$ 15 mg/m^3 **Titanium Dioxide** 1 - 4 13463-67-7 5 mg/m³ TWA 10 mg/m^3 0.1 - 0.5Iron Oxide 1309-37-1 $80 \text{ mg/m}^3 \text{ TWA}$ 80 mg/m^3 Silicon Dioxide 7631-86-9 0.2 - 1.7%SiO₂ $%SiO_2 + 3$ respirable fraction respirable fraction Other Oxides total less than 1% Non-fibrous form of aluminum oxide PEL means OSHA Permissible Exposure Limit TLV means American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value TWA means 8 hour Time Weighted Average Section 3. Physical and Chemical Data **Boiling Point: N/A Vapor Density: Specific Gravity:** N/A 3.95 Melting Point: 2040°C Vapor Pressure: N/A **Evaporation rate: N/A Solubility in Other Solvent:** Partially soluble in hydrofluoric acid **Solubility in Water: Insoluble** Appearance and odor: Black to brown to tan; granular to powder; odorless Section 4. Fire and Explosion Data Flash Point: None **Autoignition Temperature:** Will not burn Flammable Limits: LEL: N/A **UEL:** N/A **Extinguishing Media:** Will not burn. May be used to extinguish fires. **Special Fire Fighting Procedures:** None. Will not burn. **Unusual Fire and Explosion Hazards:** None Section 5. Reactivity Data **Stability:** Stable **Conditions to Avoid:** None Materials to Avoid: None **Hazardous Decomposition Products: None Hazardous Polymerization:** Will not occur Section 6 Health Hazard Data Ingestion: No known adverse effects for normal, incidental ingestion **Eye Contact:** May cause abrasion and irritation Skin Contact: Not absorbed through the skin. May cause abrasions. May cause coughing or shortness of breath. Chronically may affect breathing capacity.

Inhalation:

Section 7. First Aid Measures Inhalation: If there is gross inhalation of dust causing coughing and shortness of breath, remove victim to fresh air. If breathing has stopped, perform artificial respiration. Seek medical attention. If large amounts are swallowed, get medical attention. **Ingestion:** Eye Contact: Flush eyes with large amounts of water. If irritation persists, get medical attention. Skin Contact: Wash with soap and water. Obtain first aid or medical assistance as needed. Storage, Handling, and Use Protection Information Section 8. Normal Storage and Handling: Avoid breathing dust. Use adequate ventilation and dust collection. Avoid breakage of bagged material and spills of bulk material. Use good housekeeping to prevent accumulation of dust in work area. Avoid creation of respirable dust. See OSHA Hazard Communication Standard 29 CFR 1910-94 (Ventilation). Ventilation: Use sufficient local mechanical exhaust as required to maintain level of respirable dust below the Permissible Exposure Limit or Threshold Limit Value. See ACGIH "Industrial Ventilation - A Manual for Recommended Practice" (latest edition). **Respiratory Protection:** Use appropriate NIOSH approved respiratory protection for respirable dust if PEL or TLV are exceeded. See OSHA (29CFR 1910.134) and MSHA (30 CFR Parts 56 and 57) and NIOSH "Respirator Decision Logic". Safety glasses with side shields or goggles recommended. **Eve Protection: Protective Gloves:** Not normally necessary. Other Protective Equipment/Clothing: As appropriate for the work environment. **Cleanup and Spill Information:** Collect using dustless methods (HEPA vacuum or flush with water) to minimize generation of airborne respirable dust. **Waste Disposal Method:** If uncontaminated, approved for disposal as an inert, non-metallic mineral in accordance with federal, state, and local regulations. If contaminated, the user must assess the proper disposal for the material appropriate for the contamination. Other Regulatory Information Section 9. U.S. Department of Transportation: Aluminum Oxide is NOT a hazardous material for purposes of transportation. US DOT Table of Hazardous Materials, 49CFR 172.101. **Resource Conservation and Recovery Act:** Aluminum Oxide is NOT classified as a hazardous material under RCRA or its regulations, 40 CFR 261. Toxic Substances Control Act: Aluminum Oxide is ON the EPA TSCA Inventory under CAS #1344-28-1. Comprehensive Environmental Response Compensation and Liability Act: Aluminum Oxide is NOT classified as a hazardous substance under CERCLA regulations, 40 CFR 302. Superfund Amendments and Reauthorization Act (SARA) Emergency Planning and Community Right Aluminum Oxide is NOT an extremely hazardous substance in Section 302 and is NOT a toxic chemical subject to the requirements of Section 313. Canadian Environmental Protection Act: **Aluminum Oxide is ON the Canadian Domestic** Substances List (DSL). National Fire Protection Association (NFPA) Hazard Rating: Health: 1 Fire: 0 Reactivity: 0 **Hazardous Material Information System (HMIS) Hazard Rating:** Health: 1 Flammability: 0 Reactivity: 0 **Protective Equipment: A** Note: The information contained in this Material Safety Data Sheet is taken from sources believed to be accurate and correct. AGSCO Corporation makes no expressed or implied warranty with respect to the accuracy of the information or the suitability of the recommendations. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by purchase, resale, use, or exposure to our product. Customers/users of the product must comply with

NAIF= No applicable information found

all federal, state, and local laws and regulations.

N/A= Not applicable