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MATERIAL SAFETY DATA SHEET

Section 1- PRODUCT IDENTIFICATION

COMPOSITION Al2O3	PRODUCT NAME Aluminum Oxide, Alumina
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Section 2- HAZARDOUS INGREDIENTS

Note: Products under normal conditions do not represent an inhalation, ingestion or contact health hazard.

MATERIAL OR COMPONENT	CAS NUMBER	WT%	EXPOSURE LIMITS	
			OSHA PEL (Mg/M3)	ACGIH TLV(MG/M3)
Aluminum Oxide	1344-28-1	100	5mg/ m³	5mg/m³

Section 3- PHYSICAL DATA

MATERIAL IS (AT NORMAL CONDITIONS) <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Other	APPEARANCE AND ODOR White powder, no odor
MELTING POINT (BASE METAL) 2050° C	SPECIFIC GRAVITY 4gm/cc

Section 4- FIRE AND EXPLOSION

Flash Point (Method Used) N/A	Flammable Limits Non-Combustible	LEL N.A.	UEL N.A.
EXTINGUISHING MEDIA Use suitable extinguishing media for surrounding materials and type of fire.			
SPECIAL FIRED FIGHTING PROCEDURES Firefighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate run-off to prevent environmental pollution.			
UNUSUAL FIRE AND EXPLOSION HAZARDS Aluminum oxide may have an exothermic reaction, above 200° C, with halocarbon vapors and may produce toxic hydrochloric acid and phosgene.			

Section 5- REACTIVITY DATA

STABILITY

Stable

INCOMPATIBILITY (MATERIALS TO AVOID)

Chlorine trifluoride, ethylene oxide, halocarbons, oxygen difluoride, sodium nitrates and vinyl acetate.

CONDITIONS TO AVOID

None

HAZARDOUS DECOMPOSITION PRODUCTS

Aluminum, hydrochloric acid and phosgene.

Section 6- HEALTH HAZARD GUIDE

MAJOR EXPOSURE HAZARD

Inhalation **Skin** **Skin Absorption** **Eye Contact** **Ingestion**

EFFECTS OF OVEREXPOSURE

Aluminum compounds have many commercial uses and are commonly found in the industry. Many of these materials are active chemically and thus exhibit dangerous toxic and reactive properties. Inhalation of fine aluminum oxide particles is associated with Shaver's disease. (Sax, Dangerous Properties of Industrial Materials- 8th edition)

INHALATION: Acute: No acute health effects recorded.

Chronic: No chronic health effects recorded.

SKIN:

Acute: No acute health effects recorded.

Chronic: No chronic health effects recorded.

EMERGENCY & FIRST AID PROCEDURES

INHALATION: Remove from exposed area to fresh air immediately; keep warm and quiet, give oxygen if breathing is difficult. Seek medical attention.

INGESTION: Give 1-2 glasses of milk or water and induce vomiting; seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person.

SKIN CONTACT: Remove contaminated clothing; brush material off skin. Wash affected area with soap or mild detergent and large amounts of water until no evidence of the chemical remains. Seek medical attention.

EYE CONTACT: Flush eyes with lukewarm water lifting up the upper and lower lids for at least fifteen minutes. Seek medical attention.

Section 7- SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCEDURES

Wear appropriate respiratory and protective equipment. Isolate the area where the spill occurred and provide ventilation and extinguish. Vacuum up the spill using a high efficiently particulate absolute (HEPA) air filter and place in a closed container for proper disposal.

WASTE DISPOSAL METHODS

Observe all federal, state and local regulations when storing or disposing.

Section 8- SPECIAL PROTECTION

RESPIRATORY

NIOSH approved dust respirator.

VENTILATION

Local Exhaust: To maintain concentration at or below PEL.

EYE PROTECTION & PROTECTIVE CLOTHING

Wear Safety glasses for eyes. Wear rubber gloves on hands. Protective gear not necessary for aluminum oxide.

Section 9- SPECIAL PRECAUTIONS

WORK/HYGIENIC/MAINTENANCE PRACTICES:

Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

Some of the chemicals listed herein are research or experimental substances, which may be toxic, as defined by various governmental regulations. In accordance with Environmental Protection Agency regulations and the Toxic Substance Control Act (TSCA), these materials should only be handled by, or under the direct supervision of a "technically qualified individual", as defined in 40 CFR710.2(aa)

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