



MATERIAL SAFETY DATA SHEET  
COMPLIES WITH 29 CFR 1910.1200.  
OSHA HAZARD COMMUNICATION RULE

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## CHEMICAL IDENTITY

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LABEL IDENTITY	<b>ALUMINUM OXIDE</b>
CHEMICAL NAME/SYNONYMS	<b>ALUMINA POWDER</b>
FORMULA	<b>Al<sub>2</sub>O<sub>3</sub></b>
CHEMICAL FAMILY	<b>METAL OXIDE</b>
MOLECULAR WEIGHT	<b>NA</b>
CAS REGISTRY NUMBER	<b>1344-28-1</b>
HAZARDOUS INGREDIENTS	<b>ALUMINUM OXIDE</b>
%: <b>100</b>	TLV: <b>10mg/m3</b> OSHA PEL: <b>15mg/m3</b>

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## PHYSICAL AND CHEMICAL PROPERTIES

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COLOR, FORM AND ODOR	<b>White odorless powder</b>
BOILING POINT	<b>NA</b>
DENSITY (gm/cc)	<b>NA</b>
VAPOR PRESSURE (mm Hg.)	<b>NA</b>
% VOLATILE BY VOLUME	<b>ND</b>
REACTION WITH WATER	<b>ND</b>
EVAPORATION RATE (H <sub>2</sub> O=1)	<b>0</b>
SOLUBILITY IN WATER	<b>Negligible</b>
MELTING POINT (C°)	<b>2072</b>
OTHER	<b>ND</b>

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## FIRE AND EXPLOSION HAZARD DATA

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FLASH POINT/METHOD	<b>NA</b>
AUTOIGNITION TEMPERATURE (°C)	<b>NA</b>
FLAMMABILITY	<b>Non flammable</b>
EXTINGUISHING MEDIA	<b>CO<sub>2</sub>, dry chemical</b>
SPECIAL FIRE FIGHTING PROCEDURES	<b>Wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.</b>
UNUSUAL FIRE & EXPLOSION HAZARDS	<b>None known.</b>



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### HEALTH HAZARD INFORMATION

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TOXICITY DATA **No data on this compound**

#### ROUTES OF ENTRY

INHALATION: **Yes**

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: **Respiratory Disorders.**

EFFECTS OF OVEREXPOSURE (acute and chronic):

INHALATION: **Acute irritation to the nose and throat by dust.**

DERMAL/EYE CONTACT: **Acute irritation to the eyes by dust.**

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CARCINOGENICITY: **No** NTP: **No** IARC MONOGRAPHS: **No** OSHA REGULATE: **No**

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EMERGENCY FIRST AID PROCEDURES: (exit to clean fresh air)

INGESTION: **Induce vomiting. Seek medical attention.**

INHALATION: **Remove victim to fresh air. Administer oxygen, seek medical attention.**

SKIN CONTACT: **Brush off and wash with soap and water.**

EYE CONTACT: **Flush eyes with water for 15 minutes, seek medical attention.**

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### REACTIVITY DATA

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STABILITY	<b>Stable</b>
CONDITIONS CONTRIBUTING TO UNSTABILITY	<b>None known</b>
INCOMPATIBILITY (MATERIALS TO AVOID)	<b>Ethylene oxide, chlorine trifluoride.</b>
HAZARDOUS DECOMPOSITION PRODUCTS	<b>None known</b>
HAZARDOUS POLYMERIZATION	<b>Will not occur</b>
CONDITIONS TO AVOID	<b>ND</b>



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### SAFE HANDLING AND USE

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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

**Wearing full protective clothing, isolate the area and insure proper ventilation.  
Vacuum up spill and place in a container for proper disposal.**

WASTE DISPOSAL METHOD:

**Recycle or dispose in accordance with Local, State and Federal regulations.**

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### SPECIAL PROTECTIVE INFORMATION

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RESPIRATORY PROTECTION	<b>NIOSH/MSHA approved respirator</b>
LOCAL EXHAUST	<b>Recommended</b>
MECHANICAL (general)	<b>ND</b>
SPECIAL	<b>ND</b>
OTHER PROTECTIVE EQUIPMENT	<b>Maintain sink, safety shower and eyewash fountain in the work area. Wear full protective clothing at all times.</b>
PROTECTIVE GLOVES	<b>Recommended for prolonged contact.</b>
EYE PROTECTION	<b>Safety glasses with side shields</b>

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### SPECIAL PRECAUTIONS

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PRECAUTIONS TO BE TAKEN IN HANDLING/STORAGE:

**Store in tightly closed containers in a cool, dry place. Wash hands and face thoroughly.**

TRANSPORTATION REQUIREMENTS: **No D.O.T. regulations classified.**

PRECAUTIONARY LABELING	DOT CLASS:	<b>N. C.</b>
	UN NUMBER:	<b>N. C.</b>
	IMCO CLASS:	<b>N. C.</b>
	OTHER:	<b>N. C.</b>
	<b>NONE</b>	

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THE ABOVE INFORMATION IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, SINCE DATA, SAFETY STANDARDS AND GOVERNMENT REGULATIONS ARE SUBJECT TO CHANGE THE CONDITIONS OF HANDLING AND USE, OR MISUSE ARE BEYOND OUR CONTROL, **ANGSTROM SCIENCES** MAKE NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR THE RELIANCE THEREON. USER SHOULD SATISFY HIMSELF THAT HE HAS ALL CURRENT DATA RELEVANT TO HIS PARTICULAR USE.

**NA= NOT APPLICABLE**

**ND= NO DATA FOUND**