Centers for Disease Control and Prevention
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alpha-Alumina

Synonyms & Trade Names Alumina, Aluminum oxide, Aluminum trioxide [Note: α-Alumina is the main component of technical grade alumina. Corundum is natural Al_2O_3. Emery is an impure crystalline variety of Al_2O_3.]

CAS No. 1344-28-1	RTECS No. BD1200000 (/niosh-rtecs/BD124F80.html)	DOT ID & Guide
Formula Al_2O_3	Conversion	IDLH N.D. See: IDLH INDEX (/niosh/idlh/intridl4.html)

Exposure Limits
NIOSH REL : See Appendix D (nengapdxd.html)
OSHA PEL † (nengapdxg.html) : TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)

Measurement Methods
NIOSH 0500 (/niosh/docs/2003-154/pdfs/0500.pdf) , 0600 (/niosh/docs/2003-154/pdfs/0600.pdf) ;
OSHA ID109SG (http://www.osha.gov/dts/sltc/methods/inorganic/t-id109sg-pv-02-0110-m/t-id109sg-pv-02-0110-m.html) , ID198SG (http://www.osha.gov/dts/sltc/methods/inorganic/id198sg/id198sg.html)
See: NMAM (/niosh/docs/2003-154/) or OSHA Methods (http://www.osha.gov/dts/sltc/methods/index.html)

Physical Description White, odorless, crystalline powder.

MW: 101.9	BP: 5396° F	MLT: 3632°F	Sol: Insoluble	VP: 0 mmHg (approx)	IP: NA
Sp.Gr: 4.0	Fl.P: NA	UEL: NA	LEL: NA		

Noncombustible solid, but dusts may form explosive mixtures in air.

Incompatibilities & Reactivities Chlorine trifluoride, hot chlorinated rubber, acids, oxidizers [Note: Hydrogen gas may be formed when finely divided iron contacts moisture during crushing & milling operations.]

Exposure Routes inhalation, ingestion, skin and/or eye contact

Symptoms irritation eyes, skin, respiratory system

Target Organs Eyes, skin, respiratory system

Personal Protection/Sanitation (See protection codes (protect.html))
Skin: No recommendation
Eyes: No recommendation
Wash skin: No recommendation
Remove: No recommendation
Change: No recommendation

First Aid (See procedures (firstaid.html))
Eye: Irrigate immediately
Skin: Blot/brush away
Breathing: Fresh air
Swallow: Medical attention immediately

Respirator Recommendations
Not available.

Important additional information about respirator selection (pgintrod.html#mustread)

See also: INTRODUCTION (/niosh/npg/pgintrod.html) See ICSC CARD: 0351 (/niosh/ipcsneng/neng0351.html)

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