

Common Name: **ALUMINUM OXIDE**

Synonyms: alpha-Alumina; Aluminum Trioxide

CAS No: 1344-28-1

Molecular Formula: Al₂O₃

RTK Substance No: 2891

Description: White, odorless, crystalline powder

HAZARD DATA

| Hazard Rating | Firefighting | Reactivity |
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| 2 - Health 0 - Fire 0 - Reactivity DOT#: None ERG Guide #: None Hazard Class: None | Extinguish fire using an agent suitable for type of surrounding fire. Aluminum Oxide itself does not burn. Dusts may form explosive mixtures in air. | Aluminum Oxide is not compatible with CHLORINE TRIFLUORIDE; ETHYLENE OXIDE; OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC); and HOT CHLORINATED RUBBER. |

SPILL/LEAKS

Isolation Distance:

Spill: 25 meters (75 feet)

Moisten spilled material first or use a HEPA-filter vacuum for clean-up and place into sealed containers for disposal.

PHYSICAL PROPERTIES

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| Odor Threshold: | Odorless |
| Flash Point: | Noncombustible |
| Vapor Pressure: | 0 mm Hg at 68 °F (20 °C) |
| Specific Gravity: | 4 (water = 1) |
| Water Solubility: | Insoluble |
| Boiling Point: | 5,396 °F (2,980 °C) |
| Melting Point: | 3,632 °F (2,030 °C) |
| Molecular Weight: | 101.9 |

EXPOSURE LIMITS

OSHA: 5 mg/m³ (as *respirable dust*) and 15 mg/m³ (as *total dust*), 8-hr TWA

ACGIH: 1 mg/m³ (as the *respirable fraction*), 8-hr TWA

The Protective Action Criteria values are:

PAC-1 = 15 mg/m³ PAC-2 = 170 mg/m³
 PAC-3 = 990 mg/m³

PROTECTIVE EQUIPMENT

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| Gloves: | Nitrile, Neoprene and Natural Rubber |
| Coveralls: | Tyvek® |
| Respirator: | >1 mg/m ³ - full facepiece APR with <i>High efficiency filters</i> (N, R or P95) |

HEALTH EFFECTS

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| Eyes: | Irritation |
| Skin: | Irritation |
| Inhalation: | Nose, throat and lung irritation with coughing, wheezing and shortness of breath |

FIRST AID AND DECONTAMINATION

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| Remove the person from exposure. |
| Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn. |
| Quickly remove contaminated clothing and wash contaminated skin with large amounts of soap and water. |
| Begin artificial respiration if breathing has stopped and CPR if necessary. |
| Transfer promptly to a medical facility. |