

Material Safety Data Sheet

Material Name: AA-300

MSDS ID: AA-300

*** Section 1 - Chemical Product and Company Identification ***

Product Code: 000055

Chemical Name: Alumina

Product Use: Active Alumina; Catalyst; Absorbent; Adsorbent

Company/Undertaking Identification

Axens North America, Inc.
1800 St. James Place
Suite 515
Houston, TX 77056

Phone: 713-840-1133
Fax: 713-840-8375
Emergency # 215-942-5456

*** Section 2 - Hazards Identification ***

Emergency Overview

CAUTION! Contact with this material can cause irritation to the skin, eyes and mucous membranes.

Potential Health Effects: Eyes

This product may cause irritation to the eyes.

Potential Health Effects: Skin

This product may cause irritation to the skin.

Potential Health Effects: Ingestion

Ingestion of this product may cause nausea, vomiting and diarrhea.

Potential Health Effects: Inhalation

Dusts of this product may cause irritation of the nose, throat, and respiratory tract. Repeated or prolonged exposure to dusts may cause respiratory damage. This product may cause metal fume fever with resulting flu-like symptoms.

HMIS Ratings: Health: 1 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
1344-28-1	Aluminum oxide, non-fibrous	50-100

Component Information/Information on Non-Hazardous Components

This product is considered not hazardous under 29 CFR 1910.1200 (Hazard Communication).

This product is considered uncontrolled under the criteria specified in the Canadian Controlled Products Act.

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists get medical attention.

First Aid: Skin

Wash thoroughly with mild soap and water. Seek medical attention if irritation develops. Remove any contaminated clothing and launder thoroughly before reuse.

First Aid: Ingestion

If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting.

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First Aid: Inhalation

If inhaled, immediately remove the affected person to fresh air. If symptoms persist, get medical attention. Give artificial respiration if not breathing.

First Aid: Notes to Physician

Provide general supportive measures and treat symptomatically.

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards

See Section 9 for Flammability Properties.
Not a fire hazard.

Hazardous Combustion Products

Non-combustible, substance itself does not burn. Heating may release irritating and toxic gases.

Extinguishing Media

Use methods for the surrounding fire.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

* * * Section 6 - Accidental Release Measures * * *

Containment Procedures

Stop the flow of material, if this is without risk. Contain the discharged material. If sweeping of a contaminated area is necessary, use a dust suppressant agent.

Clean-Up Procedures

Sweep up or gather material and place in appropriate container for disposal. Wash spill area thoroughly. Wear appropriate protective equipment during cleanup. Follow all Local, State, Federal and Provincial regulations for disposal.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

Regulations vary. Consult local authorities before disposal. Wear appropriate personal protection equipment.

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Avoid getting this material into contact with your skin and eyes. Avoid breathing dusts from this material. Use this product with adequate ventilation. Wash thoroughly after handling. Avoid the formation or spread of dust in the atmosphere.

Storage Procedures

Keep the container tightly closed and in a cool, well-ventilated place. Keep the container dry.

* * * Section 8 - Exposure Controls / Personal Protection * * *

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A: Component Exposure Limits

Consult local authorities for acceptable exposure limits.

Aluminum oxide, non-fibrous (1344-28-1)

OSHA Vacated:	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
OSHA Final:	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
Alberta:	10 mg/m3 TWA
New Brunswick:	10 mg/m3 TWA (particulate matter containing no asbestos and < 1% crystalline silica)
NW Territories:	10 mg/m3 TWA; 5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass) 20 mg/m3 STEL
Nunavut:	10 mg/m3 TWA; 5 mg/m3 TWA (respirable mass); 10 mg/m3 TWA (total mass) 20 mg/m3 STEL
Quebec:	10 mg/m3 TWAEV (total dust, containing no Asbestos and <1% Crystalline silica, as Al)
Saskatchewan:	10 mg/m3 TWA 20 mg/m3 STEL
Yukon:	30 mppcf TWA (Al ₂ O ₃); 10 mg/m3 TWA (Al ₂ O ₃) 20 mg/m3 STEL (Al ₂ O ₃)

Engineering Controls

Ventilation should effectively remove and prevent buildup of any dust generated from the handling of this product.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear safety glasses with side shields.

Personal Protective Equipment: Skin

Wear chemical resistant gloves. Work clothing sufficient to prevent all skin contact should be worn, such as coveralls and long sleeves. Recommended material types are nitrile and polyvinylchloride (PVC).

Personal Protective Equipment: Respiratory

If ventilation is not sufficient to effectively prevent buildup of dust, appropriate CSA/NIOSH approved respiratory protection must be provided.

Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended. Use good industrial hygiene practices in handling this material.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance:	Solid in granules.	Odor:	None
Physical State:	Solid	pH:	Not applicable
Vapor Pressure:	Not applicable	Vapor Density:	Not applicable
Boiling Point:	Not applicable	Melting Point:	2050°C (3722°F)
Solubility (H₂O):	Insoluble	Flash Point:	Not applicable
Flash Point Method:	Not applicable	Flamm Class:	Non-flammable
Auto Ignition:	Not applicable	LFL:	Not applicable
UFL:	Not applicable	Specific Gravity:	3.0-3.7 (water=1)
Bulk Density:	<1		

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability

Stable under normal conditions.

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Conditions to Avoid

None expected.

Incompatibility

Strong acids and bases.

Hazardous Decomposition

Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.

Possibility of Hazardous Reactions

Will not occur.

* * * Section 11 - Toxicological Information * * *

Acute Dose Effects

A: General Product Information

This product may cause metal fume fever with resulting flu-like symptoms.

Excessive inhalation of aluminum dust may cause pulmonary fibrosis, and has been associated with neurological disorders. Ingestion is reported to cause elevated blood levels of aluminum, and is reported to cause behavioral changes in experimental animals.

B: Component Analysis - LD50/LC50

Aluminum oxide, non-fibrous (1344-28-1)

Oral LD50 Rat >5000 mg/kg

Carcinogenicity

A: General Product Information

No information available for the product.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

No effects are expected due to the insolubility of the product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Persistence & Degradability

Inert mineral product. Not degradable

Bioaccumulation & Accumulation

The product is believed to be non-bioavailable due to insolubility.

Mobility in Environmental Media

Forms deposits readily.

* * * Section 13 - Disposal Considerations * * *

US EPA Waste Number & Descriptions

A: General Product Information

As supplied, this material is not expected to be a characteristic hazardous waste under RCRA. However, this may not be true following use or modification of the original product.

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Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

* * * Section 14 - Transportation Information * * *

US DOT Information

Shipping Name: Not regulated as a hazardous material for transport.

TDG Information

Shipping Name: Not regulated as dangerous goods for transport.

* * * Section 15 - Regulatory Information * * *

US Federal Regulations

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List. Components of this product have been checked against the Canadian DSL and NDSL by CAS Registry Number.

B: Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

Acute Health: No **Chronic Health:** No **Fire:** No **Pressure:** No **Reactive:** No

State Regulations

A: General Product Information

Other state and provincial regulations may apply. Check individual state requirements.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Aluminum oxide, non-fibrous	1344-28-1	Yes	Yes	Yes	Yes	Yes	Yes

Canadian WHMIS Information

A: General Product Information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by CPR.

B: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Aluminum oxide, non-fibrous	1344-28-1	1 %

WHMIS Classification: Uncontrolled product per WHMIS Classification Criteria.

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C: CEPA - Canadian Environmental Protection Act

This product does not contain any toxic substances requiring export notification in part II of schedule III of the Canadian Environmental Protection Act.

D: Component Marine Pollutants

No information is available.

Additional Regulatory Information

A: General Product Information

No additional information available.

B: Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Aluminum oxide, non-fibrous	1344-28-1	Yes	DSL	EINECS

* * * Section 16 - Other Information * * *

Other Information

Disclaimer: Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will make his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

MSDS History

Revision 1.0000, New MSDS: 17 December 2010.

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists. AICS = Australian Inventory of Chemical Substances. CAS = Chemical Abstract Service. CERCLA = Comprehensive Environmental Response, Compensation and Liability Act. CFR = Code of Federal Regulations. CHEMTREC = Chemical Transportation Emergency Center. DSL = Canadian Domestic Substance List. EINECS = European Inventory of New and Existing Chemical Substances. ELINCS = European List of Notified Chemical Substances. EPA = Environmental Protection Agency. HEPA = High Efficiency Particulate Air. HMIS = Hazardous Material Information System. IARC = International Agency for Research on Cancer. IDLH = Immediately Dangerous to Life and Health. MITI = Japanese Ministry of International Trade and Industry. NDSL = Canadian Non-Domestic Substance List. NFPA = National Fire Protection Association. NIOSH = National Institute of Occupational Safety and Health. NJTSR = New Jersey Trade Secret Registry. NTP = National Toxicology Program. OSHA = Occupational Safety and Health Administration. NA = Not available or Not Applicable. SARA = Superfund Amendments and Reauthorization Act. TDG = Transportation of Dangerous Goods. TLV = Threshold Limit Value. TSCA = Toxic Substances Control Act. WHMIS = Workplace Hazardous Materials Information System.

Contact: Corporate Environment, Health & Safety Group

Contact Phone: See Section 1

End of Sheet AA-300