

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 12.29.2014

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Aluminum Oxide

SECTION 1 : Identification of the substance/mixture and of the supplier

Product name : Aluminum Oxide

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25149

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331

Supplier Details:

Fisher Science Education
15 Jet View Drive, Rochester, NY 14624

Emergency telephone number:

Fisher Science Education Emergency Telephone No.: 800-535-5053

SECTION 2 : Hazards identification

Classification of the substance or mixture:

Not classified for physical or health hazards under GHS.

Hazard statements:

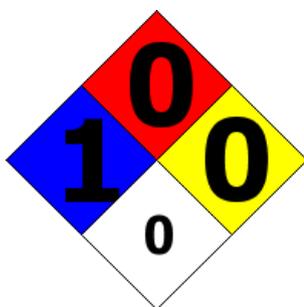
Precautionary statements:

Combustible Dust Hazard :

May form combustible dust concentrations in air (during processing).

Other Non-GHS Classification:

**WHMIS
NFPA/HMIS**



NFPA SCALE (0-4)

Health	0
Flammability	0
Physical Hazard	0
Personal Protection	X

HMIS RATINGS (0-4)

SECTION 3 : Composition/information on ingredients

Ingredients:

CAS 1344-28-1	Aluminium oxide	100 %
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Percentages are by weight

SECTION 4 : First aid measures

Description of first aid measures

After inhalation: Loosen clothing as necessary and position individual in a comfortable position. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen.

After skin contact: Wash hands and exposed skin with soap and plenty of water for 15-20 minutes. Seek medical attention if irritation persists or if concerned.

After eye contact: Protect unexposed eye. Rinse or flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing. Immediately get medical assistance.

After swallowing: Dilute mouth with water or milk after rinsing. Immediately get medical assistance.

Most important symptoms and effects, both acute and delayed:

Shortness of breath. Irritation. Nausea. Headache.;

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

SECTION 5 : Firefighting measures

Extinguishing media

Suitable extinguishing agents: Use any means suitable for extinguishing surrounding fire.

For safety reasons unsuitable extinguishing agents: No information available.

Special hazards arising from the substance or mixture:

Advice for firefighters:

Protective equipment: Wear protective eyewear, gloves, and clothing. Refer to Section 8.

Additional information (precautions): Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing.

SECTION 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

Environmental precautions:

Prevent from reaching drains, sewer, or waterway.

Methods and material for containment and cleaning up:

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately. Observe precautions for protective equipment. Avoid dispersal of dust in the air. Do not clear dust on surfaces with compressed air. Always obey local regulations. Follow Chemical Hygiene Plan. Refer to Section 8.

Reference to other sections:

SECTION 7 : Handling and storage

Precautions for safe handling:

Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Follow good hygiene procedures when handling chemical materials. Wash hands and exposed skin with soap and plenty of water. Avoid contact with skin, eyes, and clothing. Avoid ingestion and inhalation. Refer to Section 8.

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Conditions for safe storage, including any incompatibilities:

Containers of this material may be hazardous when empty since they retain product residues. Refer to Section 5. Store with like hazards. Keep container tightly closed in a cool, dry, and well-ventilated area.

SECTION 8 : Exposure controls/personal protection



Control Parameters:

1344-28-1, Aluminium oxide, USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants: 15.000000 mg/m³
1344-28-1, Aluminium oxide, USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants: 5.000000 mg/m³
1344-28-1, Aluminium oxide, USA. ACGIH Threshold Limit Values (TLV): 1.000000 mg/m³

Appropriate Engineering controls:

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (exhaust ducts, dust collectors, vessels, and processing equipment) are designed to prevent the escape of dust into the work area. Normal ventilation is adequate. Ensure eyewash and safety showers are available.

Respiratory protection:

Not required under normal conditions of use.

Protection of skin:

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. Select glove material impermeable and resistant to the substance.

Eye protection:

Safety glasses with side shields or goggles.

General hygienic measures:

Wash hands before breaks and at the end of work. Wash hands and exposed skin with soap and plenty of water. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid dispersal of dust in the air. Do not clear dust on surfaces with compressed air. Avoid inhaling dust.

SECTION 9 : Physical and chemical properties

Appearance (physical state,color):	White solid	Explosion limit lower: Explosion limit upper:	Non Explosive Non Explosive
Odor:	Odorless	Vapor pressure:	1 hPa (1 mmHg) at 2,158°C
Odor threshold:	Not Applicable	Vapor density:	Not Applicable
pH-value:	9.4 - 10.1 at 20°C	Relative density:	4.000 g/cm ³
Melting/Freezing point:	2000°C	Solubilities:	Insoluble
Boiling point/Boiling range:	2980°C	Partition coefficient (n-octanol/water):	No Information
Flash point (closed cup):	Not Applicable	Auto/Self-ignition temperature:	Not Applicable

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Evaporation rate:	Not Applicable	Decomposition temperature:	Not Applicable
Flammability (solid,gaseous):	No Information	Viscosity:	a. Kinematic:Not Applicable b. Dynamic: Not Applicable
Density: No Information			

SECTION 10 : Stability and reactivity

Reactivity:None under normal processing.

Chemical stability:No decomposition if used and stored according to specifications.

Possible hazardous reactions:None under normal processing.

Conditions to avoid:Dust generation. Excessive heat.

Incompatible materials:None.

Hazardous decomposition products:None.

SECTION 11 : Toxicological information

Acute Toxicity:		
Oral:	>10,000 mg/kg	LD50 Rat
Inhalation:	4 h - > 2.6 mg/l	LD50 Rat
Chronic Toxicity: No additional information.		
Corrosion Irritation:		
Dermal:	No skin irritation	Rabbit
Ocular:	No eye irritation	Rabbit
Sensitization:	Guinea pig: Did not cause sensitisation on laboratory animals.	
Single Target Organ (STOT):	No additional information.	
Numerical Measures:	No additional information.	
Carcinogenicity:	No additional information.	
Mutagenicity:	No additional information.	
Reproductive Toxicity:	No additional information.	

SECTION 12 : Ecological information

Ecotoxicity

: No toxicity at the limit of solubility

Persistence and degradability: Readily degradable in the environment.

Bioaccumulative potential:

Mobility in soil:

Other adverse effects:

SECTION 13 : Disposal considerations

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Waste disposal recommendations:

Dilute with water and flush to sewer. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

SECTION 14 : Transport information

UN-Number

Not Dangerous Goods

UN proper shipping name

Not Dangerous Goods

Transport hazard class(es)

Packing group: Not Dangerous Goods

Environmental hazard:

Transport in bulk:

Special precautions for user:

SECTION 15 : Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

Acute, Chronic

SARA Section 313 (Specific toxic chemical listings):

1344-28-1 Aluminum Oxide

RCRA (hazardous waste code):

None of the ingredients is listed

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

None of the ingredients is listed

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed

Chemicals known to cause developmental toxicity:

None of the ingredients is listed

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

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None of the ingredients is listed

Canadian NPRI Ingredient Disclosure list (limit 1%):

None of the ingredients is listed

SECTION 16 : Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases:

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

PNEC: Predicted No-Effect Concentration (REACH)

CFR: Code of Federal Regulations (USA)

SARA: Superfund Amendments and Reauthorization Act (USA)

RCRA: Resource Conservation and Recovery Act (USA)

TSCA: Toxic Substances Control Act (USA)

NPRI: National Pollutant Release Inventory (Canada)

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

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