

Safety Data Sheet

Aluminum, Powder

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: Aluminum, Powder
Recommended Use: Science education applications
Synonyms: Aluminum Flake, Sparkler Mix
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER



Flammable solid.

GHS Classification:
Flammable Solid Category 1

Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Aluminum, Powder	7429-90-5	100

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin Contact: After contact with skin, wash immediately with plenty of water.
Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5 Firefighting Procedures

Extinguishing Media: Use dry chemical, CO₂ or appropriate foam. Sand Talc
Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards: Explosive when mixed with oxidising substances. Reacts with some acids and bases to form hydrogen gas.
Hazardous Combustion Products: Metal Oxides,

Section 6 Spill or Leak Procedures

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Steps to Take in Case Material Is Released or Spilled:

Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Isolate area. Keep unnecessary personnel away. Avoid the generation of dusts during clean-up. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Avoid creating dusts. Cover material with absorbent and moisten. Eliminate sources of ignition and collect for disposal.

Section 7 Handling and Storage

Handling: Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/.../ equipment. Wear protective gloves/protective clothing/eye protection/face protection. Keep away from ... (incompatible materials to be indicated by the manufacturer).

Storage: Keep container tightly closed in a cool, well-ventilated place.

Storage Code: Red - Flammables. Store in approved flammable containers. Store away from oxidizing materials.

Section 8 Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>		<u>OSHA PEL</u>	
	<u>(TWA)</u>	<u>(STEL)</u>	<u>(TWA)</u>	<u>(STEL)</u>
Aluminum, Powder	1 mg/m ³ TWA (respirable fraction)	N/A	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)	N/A

Control Parameters

Engineering Measures:

No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

Personal Protective Equipment (PPE):

Lab coat, apron, eye wash, safety shower.

Respiratory Protection:

No respiratory protection required under normal conditions of use. Wear a NIOSH approved respirator if levels above the exposure limits are possible.

Respirator Type(s):

NIOSH approved air purifying respirator with dust/mist filter.

Eye Protection:

Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection:

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves:

Nitrile

Section 9 Physical Data

Formula: Al	Vapor Pressure: 0.00013 hPa at 974 °C
Molecular Weight: 26.98	Evaporation Rate (BuAc=1): N/A
Appearance: Powder	Vapor Density (Air=1): N/A
Odor: No data available	Specific Gravity: 2.702
Odor Threshold: No data available	Solubility in Water: Practically Insoluble
pH: No data available	Log Pow (calculated): No data available
Melting Point: No data available 660 C	Autoignition Temperature: No data available
Boiling Point: No data available 2467 C	Decomposition Temperature: No data available
Flash Point: No data available	Viscosity: No data available
Flammable Limits in Air: N/A N/A	Percent Volatile by Volume: N/A

Section 10 Reactivity Data

Reactivity: Moderately reactive - See below

Chemical Stability: Stable under normal conditions.

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Conditions to Avoid: None known. Contact with water (reacts with water). Avoid Dusting. May become explosive when dispersed in air.

Incompatible Materials: Acids, Caustics (bases), Halogens, Strong oxidizing agents

Hazardous Decomposition Products: Metal Oxides,

Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry: Inhalation.

Symptoms (Acute): Respiratory disorders

Delayed Effects: No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Aluminum, Powder	7429-90-5	Oral LD50 Rat > 2000 mg/kg	Not determined	Inhalation LC50 (4h) Rat > 888 MG/L

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
No data available	7429-90-5	Not listed	Not listed	Not listed

Chronic Effects:

Mutagenicity: No evidence of a mutagenic effect.

Teratogenicity: No evidence of a teratogenic effect (birth defect).

Sensitization: No evidence of a sensitization effect.

Reproductive: No evidence of negative reproductive effects.

Target Organ Effects:

Acute: See Section 2

Chronic: Not listed as a carcinogen by IARC, NTP or OSHA.

Section 12 Ecological Data

Overview: This material is not expected to be harmful to the ecology.

Mobility: No data

Persistence: No data

Bioaccumulation: No data

Degradability: No data

Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity
N/A	7429-90-5	

Section 13 Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Waste Disposal Code(s): Not Determined

Section 14 Transport Information

Ground - DOT Proper Shipping Name:	Air - IATA Proper Shipping Name:
Shipping Name: ALUMINUM POWDER, UNCOATED Hazard Class: 4.3 UN Number: UN1396 Packing Group: II	Shipping Name: ALUMINUM POWDER, UNCOATED Hazard Class: 4.3 UN Number: UN1396 Packing Group: II

Section 15 Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

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Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Aluminum, Powder	7429-90-5	Aluminum	No	No	No	No

Section 16

Additional Information

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Replaces: 09/03/2014

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health