

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name Aluminum Metal

CAS number 7420-90-5

Synonyms No information available

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses Chemical manufacturing, research laboratories

1.3 Details of the supplier of the safety data sheet

Company Lab Alley, LLC
 12501 Pauls Valley Road
 Austin, Texas 78737
 U.S.A.

Telephone 512-668-9918

Fax 512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Not classified for physical or health hazards under GHS.

2.2 GHS Label elements, including precautionary statements

Pictogram None

Signal Word	None
Hazard statements	No information available
Precautionary statements:	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Protect from moisture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS



B6

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Aluminum	-	7429-90-5	100%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists. If breathing difficult. Give oxygen.
In case of skin contact	Wash affected area with water for at least 15 minutes. Seek medical attention if irritation persists or if concerned.
In case of eye contact	Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Seek medical attention if irritation persists or if concerned.
If swallowed	Rinse mouth thoroughly. Do not induce vomiting. Seek medical attention immediately. Have exposed individual drink sips of water.

4.2 Most important symptoms and effects, both acute and delayed

Irritation, Nausea, Headache, Shortness of breath.

4.3 Indication of any immediate medical attention and special treatment needed

If seeking medical attention, provide SDS document to physician. Treat patient symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. Smother with suitable dry powder for extinction. (Pressure from this media may cause severe dusting.)

Unsuitable extinguishing media

Do not use water.

5.2 Specific hazards arising from the substance or mixture

Combustion products may include metallic oxides or other toxic vapors. Combustible solid, finely divided dust is easily ignited; may cause explosions. Use spark-proof tools and explosion-proof equipment.

5.3 Special protective equipment and precautions for firefighters

Use NIOSH-approved respiratory protection/breathing apparatus. Wear fire/flame resistant/retardent clothing.

5.4 Further information

Flash Point

No data available

Autoignition Temperature

No information available

Explosion limits

Upper

No data available

Lower

No data available

Sensitivity to Mechanical Impact

No information available

Sensitivity to Static Discharge

No information available

NFPA

Health	Flammability	Instability	Physical hazards
0	3	1	W

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Protect from heat. Stop the spill, if possible. Contain spilled material by diking or using inert absorbent. Transfer to a disposal or recovery container.

6.2 Environmental precautions

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13.

6.3 Methods and materials for containment and cleaning up

If in a laboratory setting, follow Chemical Hygiene Plan procedures. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor. Avoid contact with skin, eyes and clothing. Vacuum or sweep up material and place into a suitable, dry disposal container. Always obey local regulations.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Follow good hygiene procedures when handling chemical materials. Wash thoroughly after handling. Do not eat, drink, smoke or use personal products when handling chemical substance. If in a laboratory setting, follow Chemical Hygiene Plan. Use only in well-ventilated areas. Avoid generation of dust or fine particulate. Dust may form flammable or explosive mixture with air, especially when damp. Wash thoroughly after handling. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

Hygiene measures

The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Immediately remove all soiled and contaminated clothing. Wash hands before break and at the end of work. Do not inhale gases/fumes/dust/mist/vapor/aerosols. Avoid contact with the eyes and skin.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store in a cool location. Avoid storage near extreme heat, ignition sources or open flame. Store away from foodstuffs. Store away from oxidizing agents. Store in cool, dry conditoinis in well sealed containers. Keep container tightly sealed.

Incompatibilities

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
-----------	------	-------

Aluminum metal	PEL	5 mg/m3
	PEL	15 mg/m3

US. ACGIH Threshold Limit Values

Component	Type	Value
Aluminum metal	TLV	5 mg/m3
	TLV	10 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Aluminum metal	REL	5 mg/m3
	REL	10 mg/m3

Biological occupational exposure limits

No information available

8.2 Exposure controls

Appropriate engineering controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits - OELs) indicated above.

Personal protective equipment

Eye/face protection

Safety glasses with side shields or goggles.

Skin and body protection

The glove material has to be impermeable and resistant to the product/the substance/the preparation being use/handled. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Respiratory protection

Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable.

Control of environmental exposure

No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	Silver-gray
Odor	Odorless
Odor Threshold	Not determined
pH	No information available
Melting Point/Range	660 °C / 1220 °F
Boiling Point/Range	2327 °C / 4221 °F
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	No information available
Density	2.7 g/cm3
Solubility	Insoluble in water.
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	Al
Molecular Weight	26.98
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Corrodes in contact with acids and other metals.

10.2 Chemical stability

No decomposition if used and stored according to specifications. Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

Combustible solid, finely divided dust is easily ignited, may cause explosions.

10.4 Conditions to avoid

Store away from oxidizing agents, strong acids or bases. Air and moisture sensitive.

10.5 Incompatible materials

Strong oxidizers and acids. Halogenated hydrocarbons.

10.6 Hazardous decomposition products

Aluminum oxide.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Aluminum metal	>15900 mg/kg (rat)	-	-

Skin corrosion/irritation

No information available

Serious eye damage/eye irritation

No information available

Respiratory or skin sensitization

No information available

Germ cell mutagenicity

No information available

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Aluminum metal	7429-90-5	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

No information available

Specific target organ toxicity - repeated exposure

No information available

Reproductive toxicity

No information available.

Chronic effects

No information available.

11.2 Additional Information

No information available.

SECTION 12: Ecological information

12.1 Toxicity

Product		Species	Test Results
---------	--	---------	--------------

Aluminum metal	LC50	Ctenopharyngodon idella (Grass carp, white amur)	260 µg/L 96 h
	LC50	Daphnia magna (Water flea)	2.6 mg/L 24 h
	LC50	Oncorhynchus mykiss (Rainbow trout)	120 µg/L 96 h

12.2 Persistence and degradability

No information available.

12.3 Bio accumulative potential

Birds and mammals are most likely exposed through dietary ingestion of soil or Al-contaminated foods.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

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 to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN-No	UN1396
Proper Shipping Name	ALUMINUM POWDER, UNCOATED
Hazard Class	4.3
Packing Group	II

IMDG

UN-No	UN1396
Proper Shipping Name	ALUMINUM POWDER, UNCOATED
Hazard Class	4.3
Packing Group	II

IATA	
UN-No	UN1396
Proper Shipping Name	ALUMINUM POWDER, UNCOATED
Hazard Class	4.3
Packing Group	II

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Listed.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous
Listed, Reactive.

SARA 313 (TRI reporting)
Listed.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not listed

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not listed

Safe Drinking Water Act
Not listed

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace
Not listed

US state regulations

US. Massachusetts RTK - Substance List
Not listed

US. New Jersey Worker and Community Right-to-Know Act

Not listed

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed

California Proposition 65

Not listed

SECTION 16: Other information

Issue date: 06/25/1999

Revision 1: 02/11/2008

Revision 2: 08/28/2024

Revision 3: 07/02/2025

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.