

Aluminum and Zinc

Safety Data Sheet

1. Product and Company Identification

Manufacturer

Lucas Milhaupt, Inc.
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Emergency Phone Number

CHEMTREC within the USA and Canada: 1-800-424-9300
CHEMTREC outside the USA and Canada: +1 703-741-5970

SDS Number: 220

Product: AL-ZN

Product Codes: 62-801, 62-802 (AL 802), A00000388 (AL 802), 62-805, 62-815,
62-822 (AL 822), A00000389 (AL 822)

Product Use(s): Alloy for brazing and other metallurgical processes

2. Hazards Identification

Classification(s): None applicable

Label Symbol(s): None applicable

Label Signal Word(s): None applicable

Label Hazard Statement(s): None applicable

Label Precautionary Statement(s)

The acute toxicities of 100% of the product's ingredients are unknown.

3. Composition/Information on Ingredients

Ingredient	CAS Number	%	Impurities
Aluminum	7429-90-5	1-23	None known
Zinc	7440-66-6	77-99	None known

4. First Aid Measures

Eye

Not applicable.

Skin

Not applicable.

4. First Aid Measures (Continued)

----- Ingestion

Not applicable.

Inhalation

If signs and symptoms of toxicity are observed, remove subject from area, administer oxygen, and seek medical attention. Keep the subject warm and at rest. Perform artificial respiration if breathing has stopped.

Note to Physician or Poison Control Center

None of the components are acutely toxic by ingestion, nor are they absorbed through the skin. Extensive or prolonged skin contact may cause dermatitis.

5. Fire Fighting Measures

----- Fire and Explosion Hazards

This product may ignite if exposed to flame or by reaction with incompatible materials (see Section #10). If present in a fire or explosion, it may emit fumes of the constituent metals or their oxides.

Extinguishing Media

Use dry sand, dry clay, dry limestone, or Class D fire extinguishers. Do not use carbon dioxide, halogenated agents, or water.

Fire Fighting Instructions

If fighting a fire in which this product is present, wear a self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode.

6. Accidental Release Measures

Not applicable.

7. Handling and Storage

----- Handling Precautions

No special handling precautions are required.

Work and Hygiene Practices

As good hygiene practice, wash hands and face before eating, drinking, applying cosmetics, or using tobacco. Remove contaminated clothing or protective equipment before entering eating/drinking areas.

Storage Precautions

Do not store in proximity to incompatible materials (see Section #10).

8. Exposure Controls and Personal Protection

Ingredients - Exposure Limits

Aluminum

ACGIH TLV: 1 mg/m³ TWA (respirable fraction)

OSHA PELs: 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

Zinc

ACGIH TLVs (as ZnO): 2 mg/m³ TWA; 10 mg/m³ STEL (respirable fractions)

OSHA PEL: 5 mg/m³ TWA (as respirable fraction of ZnO dust or fume)

Ingredients - Biological Limits

Aluminum

No ACGIH BEI(s) or other biological limit(s)

Zinc

No ACGIH BEI(s) or other biological limit(s)

Engineering Controls

Use dilution or local exhaust ventilation adequate to maintain concentrations of all components and their byproducts to within their applicable standards.

Eye/Face Protection

Wear eye protection adequate to prevent eye contact with finely-divided product and eye injury if the product is used with a flame. Plastic-frame spectacles with side shields are recommended.

Skin Protection

Wear appropriate protective gloves and clothing to prevent skin injury if the product is used with a flame and/or for prolonged or repeated contact with finely-divided forms of product. Avoid flammable fabrics.

Respiratory Protection

If an exposure level to a component(s) exceeds an applicable standard, use a NIOSH-approved respirator having a configuration (facepiece, filter media, assigned protection factor, etc.) effective for the concentration of the component(s) generated. For guidance on selection and use of respirators, consult American National Standard Z88.2 (ANSI, New York, NY 10036, USA).

9. Physical and Chemical Properties

Appearance: Silver-gray alloy in various solid forms

Odor: none

Odor threshold: not applicable

pH: not applicable

Melting Point: not determined

Freezing point: not applicable

Boiling point/boiling range: not determined

Flash Point: not applicable

Evaporation Rate: not applicable

Flammability Class: not applicable

Lower Explosive Limit: not applicable

Upper Explosive Limit: not applicable

Vapor pressure: not applicable

Vapor density: not applicable

Relative density (H₂O): approx. 6.8

9. Physical and Chemical Properties (Continued)

Solubility (H₂O): insoluble
Oil-water partition coefficient: not applicable
Autoignition Point: not applicable
Decomposition temperature: not applicable
Viscosity: not applicable

10. Stability and Reactivity

Reactivity: none reasonably foreseeable
Stability: stable
Hazardous Polymerization: will not occur
Risk of Dangerous Reactions: Contact with incompatible materials.

Incompatible Materials

Ammonium nitrate; bromates; chlorates; iodates; antimony trichloride; arsenic trichloride; halogens; peroxides; carbon disulfide; carbon tetrachloride; halogenated hydrocarbons; chromic anhydride; copper oxide; diborane; performic acid; phosgene; silver chloride; sulfates; barium dioxide; barium nitrate; hydrazine mononitrate; hydroxylamine; azides; manganese chloride; nitric acid; performic acid; nitrates; selenium; lead oxide; phosphorus.

Hazardous Decomposition Products

Heating to elevated temperatures may liberate metal/metal oxide fumes.

11. Toxicological Information

This product has not been tested for toxicology by the manufacturer.

Ingredients - Toxicological Data

Aluminum		
LD50: No data available		LC50: No data available
Zinc		
LD50: No data available		LC50: No data available

Primary Routes(s) of Entry

Ingestion; inhalation.

Eye Hazards

As a solid, eye contact is not a plausible mode of exposure.

Skin Hazards

As a solid, skin contact is not a plausible mode of exposure.

Ingestion Hazards

As a solid, ingestion is not a plausible mode of exposure.

11. Toxicological Information (Continued)

Inhalation Hazards

Inhalation of toxicologically-significant quantities of the components is unlikely when the product is used in accordance with instructions and specified protective measures (see Section #8).

Symptoms Related to Overexposure

Pre-existing pulmonary diseases (e.g., bronchitis, asthma) may be aggravated by inhalation overexposure, particularly as fume.

Delayed Effects from Long Term Overexposure

Chronic overexposure by inhalation may aggravate pre-existing diseases of the respiratory system.

Carcinogenicity

The product contains no chemicals classified as potential or demonstrated carcinogens by IARC, NTP, or OSHA.

Germ Cell Mutagenicity

The product contains no chemicals determined to be germ cell mutagens.

Reproductive Effects

The product contains no chemicals determined to be damaging to fertility or to the unborn child.

Acute Toxicity Estimates

LD50 (oral): no data available

LD50 (dermal): no data available

LC50: no data available

Interactive Effects of Components: no data available

12. Ecological Information

No ecological data is available for the product. Available ecological data for the components is as follows:

Aluminum

Aquatic Toxicity to Fish: NOEC >100 mg/l. for 4 d. (freshwater fish)

Aquatic Toxicity to Invertebrates: NOEC >100 mg/l. for 48 h. (Daphnia)

Aquatic Toxicity to Plants: NOEC >100 mg/l. for 3 d. (Algae)

No data available for Aquatic Toxicity to Microorganisms, Toxicity to Terrestrial Organisms, Persistence and Degradability, Bioaccumulation Potential, or Mobility in Soil.

12. Ecological Information (Continued)

Zinc

No data available for Aquatic Toxicity to Fish, Invertebrates, Plants or Microorganisms, Toxicity to Terrestrial Organisms, Persistence and Degradability, Bioaccumulation Potential, or Mobility in Soil.

Ozone Depletion Potential: This product contains no ingredients listed in the Annexes to the Montréal Protocol on Substances that Deplete the Ozone Layer.

13. Disposal Considerations

Do not discharge waste product into sanitary or storm sewers or allow it to contaminate soil. Consult applicable Federal, State/Provincial, and local regulations.

14. Transport Information

Transport is not regulated by USDOT, TDG (Canada), IATA, or IMO.

15. Regulatory Information

United States Regulatory Information

All components of this product are listed on the EPA's TSCA inventory.

SARA Hazard Classes: Chronic Health Hazard

SARA Section 313 Notification

This product contains these components at concentrations >1% (>0.1% for carcinogens) subject to Section 313 of the Emergency Preparedness and Community Right-to-Know Act (EPCRA) of 1986 and of 40CFR, Part 372:

1. Aluminum (CASRN 7429-90-5)

Canadian Regulatory Information

All components of this product are listed on either the Domestic Substances List (DSL) or the Nondomestic Substances List (NDSL).

This product has been classified in accordance with Canada's Hazardous Products Regulations (SOR/DORS/2015-17).

16. Other Information

HMIS Ratings

Health - 1* (slight chronic hazard)
Flammability - 1 (slight hazard)
Physical Hazard - 1 (slight hazard)
PPE - see Note

16. Other Information (Continued)

Note: Lucas-Milhaupt, Inc. recommends use of protective eyewear and gloves (Personal Protection Index "B") as standard PPE. HMIS recommends that its ratings be used only in conjunction with a fully implemented HMIS program, and that specific PPE codes be created by the user, who is familiar with the actual conditions under which the product is used. We cannot anticipate every condition of the product's use, and it is the user's responsibility to evaluate the hazards pertinent to its specific operations, and to determine the specific PPE required.

NFPA Ratings

Health - 1 Flammability - 1 Reactivity - 1

Preparation Information

Date of Preparation: 27 April 2016
Date of Prior SDS: 27 May 2014

Disclaimer

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Lucas-Milhaupt, Inc.