

Aluminum and Zinc

Safety Data Sheet

1. Product and Company Identification

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Manufacturer

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Lucas Milhaupt, Inc.  
5656 South Pennsylvania Avenue  
Cudahy, WI 53110 USA  
Telephone: 414-769-6000  
www.lucasmilhaupt.com

Emergency Phone Number

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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

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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)

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

3. Composition/Information on Ingredients

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

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4. First Aid Measures

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Eye

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Not applicable.

Skin

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Not applicable.

#### 4. First Aid Measures (Continued)

##### ----- Ingestion

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Not applicable.

##### Inhalation

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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

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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

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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

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

##### Fire Fighting Instructions

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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

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Not applicable.

#### 7. Handling and Storage

##### ----- Handling Precautions

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No special handling precautions are required.

##### Work and Hygiene Practices

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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

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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/m<sup>3</sup> TWA (respirable fraction)

OSHA PELs: 15 mg/m<sup>3</sup> TWA (total dust); 5 mg/m<sup>3</sup> TWA (respirable fraction)

#### Zinc

ACGIH TLVs (as ZnO): 2 mg/m<sup>3</sup> TWA; 10 mg/m<sup>3</sup> STEL (respirable fractions)

OSHA PEL: 5 mg/m<sup>3</sup> 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 (H<sub>2</sub>O): approx. 6.8

## 9. Physical and Chemical Properties (Continued)

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Solubility (H<sub>2</sub>O): insoluble  
Oil-water partition coefficient: not applicable  
Autoignition Point: not applicable  
Decomposition temperature: not applicable  
Viscosity: not applicable

## 10. Stability and Reactivity

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

### Incompatible Materials

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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

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

## 11. Toxicological Information

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

### Ingredients - Toxicological Data

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

### Primary Routes(s) of Entry

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Ingestion; inhalation.

### Eye Hazards

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

### Skin Hazards

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

### Ingestion Hazards

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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)

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Zinc

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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

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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

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

## 15. Regulatory Information

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United States Regulatory Information

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

SARA Hazard Classes: Chronic Health Hazard

SARA Section 313 Notification

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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

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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

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HMIS Ratings

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

16. Other Information (Continued)

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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

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Health - 1      Flammability - 1      Reactivity - 1

Preparation Information

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

Disclaimer

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Lucas-Milhaupt, Inc.