

Aluminum and Zinc

Material Safety Data Sheet

1. Product And Company Identification

Supplier

Lucas-Milhaupt, Inc.
A Handy & Harman Company
5656 South Pennsylvania Avenue
Cudahy, WI 53110
Telephone Number: 414-769-6000
FAX Number: 414-769-1093

Supplier Emergency Contacts & Phone Number

Chemtrec: (800) 424-9300

Manufacturer

Lucas-Milhaupt, Inc.
A Handy & Harman Company
5656 South Pennsylvania Avenue
Cudahy, WI 53110
Telephone Number: 414-769-6000
FAX Number: 414-769-1093

Manufacturer Emergency Contacts & Phone Number

Chemtrec: (800) 424-9300

Issue Date: 03/30/2005
Product Name: Aluminum and Zinc
CAS Number: Not Established
MSDS Number: 220
Product Code: 62-801; 62-802; 62-805; 62-815; 62-820; 62-822

2. Composition/Information On Ingredients

Ingredient Name - (CAS Number) - %

Aluminum (7429-90-5) 1.5 - 23
Zinc (7440-66-6) 84.5 - 98.5

No Data Available...

3. Hazards Identification

Primary Routes(s) Of Entry

Ingestion; inhalation

Eye Hazards

In finely divided form, this product can cause eye irritation upon prolonged contact.

Skin Hazards

In finely divided form, this product can irritate the skin.

Ingestion Hazards

If a finely divided form of the product is ingested, it may cause gastric irritation, nausea, and cramps.

Inhalation Hazards

Inhalation of the components of this product is not known to present a significant risk to health when used according to instructions and with appropriate protective measures (see Section #8). Inhalation of component elements has been reported to cause one or more of the following symptoms and effects upon excessively high or prolonged exposure:

ALUMINUM: Aluminum oxide, a potential byproduct, has been associated with respiratory disorders (pulmonary fibrosis, emphysema) among individuals exposed (simultaneously or previously) to crystalline silica.

ZINC: Acute exposure to zinc oxide fume may cause respiratory tract irritation and "metal fume fever", which is characterized by a metallic taste, cough, dry throat, chills, fever, tightness of chest, headache, nausea, shortness of breath, vomiting, and fatigue.

4. First Aid Measures

Eye

Flush affected areas with water for at least fifteen minutes. Seek medical assistance if necessary.

Skin

Remove contaminated clothing. Wash affected area with large quantities of water for at least five minutes. Seek medical attention if necessary. Launder or dry-clean clothing before reuse.

Ingestion

If subject is conscious, induce vomiting. If unconscious or convulsive, seek immediate medical assistance. Never give anything by mouth to an unconscious person.

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

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

5. Fire Fighting Measures

Flash Point: N/A °F N/A °C
Autoignition Point: N/A °F N/A °C
Flammability Class: N/A
Lower Explosive Limit: N/A
Upper Explosive Limit: N/A
Fire And Explosion Hazards

Powders containing aluminum and/or zinc can form explosive mixtures in a dust cloud in air. If these products are processed in a manner which creates a finely-divided aerosol, avoid static discharges.

Extinguishing Media

Use dry sand, dry clay, dry ground limestone, or approved 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

If a finely-divided form of product is spilled, clean up spillage with a brush or sponge, using non-sparking equipment. Avoid use of devices that can generate static charge. Only vacuum cleaners approved for use with reactive combustible metal dusts should be used. If vacuum cleaning is done, piping, hoses, and attachments should be electrically conductive and grounded. Wear appropriate protective equipment (e.g., gloves, dust-proof goggles) during cleanup.

7. Handling And Storage

Handling Precautions

Smoking and sources of ignition should be eliminated where finely divided forms of product are stored.

Storage Precautions

Keep from any possible contact with water. Do not store in proximity to incompatible materials (see Section #10).

Work/Hygienic Practices

To minimize ingestion, wash hands and face before eating, drinking, applying cosmetics, or using tobacco.

8. Exposure Controls/Personal Protection

Engineering Controls

Use appropriate ventilation (e.g., dilution, local exhaust) adequate to maintain concentrations of all components to within their applicable standards.

Eye/Face Protection

Wear eye protection adequate to prevent eye contact with finely-divided forms of product and eye injury from the hazards of brazing. Plastic-frame spectacles with side shields and filter lenses (shade #3 or #4) are recommended.

Skin Protection

Wear appropriate protective gloves and clothing to prevent skin injuries from the hazards of brazing and/or for prolonged or repeated contact with finely-divided forms of product. Avoid flammable fabrics.

Respiratory Protection

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

Ingredient(s) - Exposure Limits

Aluminum

ACGIH TLVs: 10 mg/m³ TWA (inspirable fraction)

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

Zinc

ACGIH TLVs (as ZnO fume): 5 mg/m³ TWA; 10 mg/m³ STEL

OSHA PEL (as ZnO fume): 5 mg/m³ TWA

9. Physical And Chemical Properties

Appearance

Odorless silver-gray alloy in the form of strip, wire, powder, or grain.

Chemical Type: Mixture

Physical State: Solid

Percent Volatiles: Not Applicable (N/A)

Vapor Pressure: N/A

Vapor Density: N/A

Solubility: insoluble

10. Stability And Reactivity

Stability: stable

Hazardous Polymerization: will not occur

Conditions To Avoid (Stability)

Contact with incompatible materials.

Incompatible Materials

Acetic anhydride; alkali and alkali earth metals; zirconium; permanganate and sulfuric acid; bromates; chlorates; iodates; halogens; chlorine trifluoride; bromine trifluoride; chloroform; bromoform; chlorofluorocarbons; nitrates; nitrites; oxides of nitrogen; inorganic and organic peroxides; copper (I) oxide; carbon disulfide.

Hazardous Decomposition Products

Aluminum and zinc oxides.

11. Toxicological Information

Chronic/Carcinogenicity

No components are classified as potential or demonstrated carcinogens by IARC, NTP, or OSHA.

Conditions Aggravated By Overexposure

Pre-existing pulmonary diseases (e.g., bronchitis, asthma) may be aggravated by inhalation overexposure, particularly as fume. Chronic overexposure by inhalation may aggravate pre-existing diseases of the respiratory system.

Ingredient(s) - Toxicological Data

Aluminum

LD50: No data available LC50: No data available

Zinc

LD50: No data available LC50: No data available

12. Ecological Information

In its intended manner of use, this product should not be released into the environment, and adverse effects on ecosystems are not anticipated under recommended conditions of use, storage, and disposal.

13. Disposal Considerations

Dispose of unused or unusable product in accordance with applicable Federal, State/Provincial, and local regulations.

14. Transport Information

Proper Shipping Name

Zinc powder, mixture

Hazard Class

4.3

DOT Identification Number

UN1436

DOT Shipping Label

DANGEROUS WHEN WET

Packaging Exceptions

None

Forms of this product other than powder are not classifiable as a Hazardous Substance or Dangerous Goods per USDOT, TDG (Canada), IATA, or IMO regulations.

15. Regulatory Information

SARA Hazard Classes

Acute Health Hazard; Chronic Health Hazard; Fire Hazard

Ingredient(s) - U.S. Regulatory Information

Aluminum

SARA Title III - Section 313 Form "R"/TRI Reportable Chemical

Canadian Regulatory Information

WHMIS Class(es) and Division(s): none applicable

Component(s) on Ingredients Disclosure List: Aluminum, elemental (CASRN 7429-90-5)

16. Other Information

Revision/Preparer Information

This MSDS Supersedes A Previous MSDS Dated: 05/05/2003

Disclaimer

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

Lucas-Milhaupt, Inc.