

Handy 1 Aluminum Core

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

800-424-9300 (Chemtrec):

Manufacturer

Lucas-Milhaupt, Inc.
A Handy & Harman Company
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Manufacturer Emergency Contacts & Phone Number

800-424-9300 (Chemtrec):

Issue Date: 07/30/2004
Product Name: Handy 1 Aluminum Core
CAS Number: Not Established
Chemical Family: Aluminum-silicon alloy, flux-cored
MSDS Number: 495
Product Code: 30-718; 30-719; 30-720

2. Composition/Information On Ingredients

Ingredient Name - (CAS Number) - %

Aluminum (7429-90-5)
Cesium fluoroaluminate (138577-01-2)
Dipotassium fluoroaluminate (41627-26-3)
Monopotassium fluoroaluminate (14484-69-6)
Silicon (7440-21-3)
Tripotassium fluoroaluminate (13775-52-5)

No Data Available...

3. Hazards Identification

Primary Routes(s) Of Entry

Inhalation.

Eye Hazards

Except for the potential for physical injury, eye exposure to this product is not a plausible mode of exposure.

Skin Hazards

Except for the potential for physical injury, skin contact with this product is not a plausible mode of exposure.

Ingestion Hazards

Ingestion of this product, as a solid, is not a plausible mode of exposure.

Inhalation Hazards

Inhalation of the components and decomposition products of this product does not pose a significant risk to health when the product is used in accordance with instructions and appropriate protective measures (see Section #8). The components/decomposition products may cause one or more of the following symptoms and effects if exposure is excessively high and/or prolonged.

ALUMINUM: Aluminum oxide, a potential oxidation byproduct, has been associated with respiratory disorders among individuals also exposed to crystalline silica.

CESIUM AND POTASSIUM FLUOROALUMINATES: Acute exposure may irritate the nose, throat, and respiratory tract. Chronic exposure may cause fluorosis (a disease characterized by mottled teeth, osteosclerosis, and pain and loss of mobility in joints).

SILICON: No significant acute or chronic health effects are known from inhalation exposure to elemental silicon. Chronic exposure to amorphous silica fume (an oxidation byproduct) may cause pulmonary fibrosis.

4. First Aid Measures

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.

5. Fire Fighting Measures

Fire And Explosion Hazards

This product is non-flammable and non-explosive. However, if present in a fire or explosion, it may emit fumes of the constituent metals or metal oxides and fluorides.

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.

Storage Precautions

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

Work/Hygienic Practices

As good sanitation practice, after using this product 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 and their byproducts to within their applicable standards.

Eye/Face Protection

Wear eye protection adequate to prevent 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. 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
OSHA PELs: 15 mg/m3 TWA (total dustl); 5 mg/m3 TWA (resp. fraction)
Cesium fluoroaluminate
ACGIH TLVs: 2.5 mg/m3 as fluorides; 2 mg/m3 as Al (soluble salts)
OSHA PEL: 2.5 mg/m3 as fluorides
Dipotassium fluoroaluminate
ACGIH TLVs: 2.5 mg/m3, as fluorides; 2 mg/m3 as Al (soluble salts)
OSHA PEL: 2.5 mg/m3 as fluorides
Monopotassium fluoroaluminate
ACGIH TLVs: 2.5 mg/m3, as fluorides; 2 mg/m3 as Al (soluble salts)
OSHA PEL: 2.5 mg/m3 as fluorides
Silicon
ACGIH TLV: 10 mg/m3 TWA
OSHA PELs: 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
Tripotassium fluoroaluminate
ACGIH TLVs: 2.5 mg/m3, as fluorides; 2 mg/m3 as Al (soluble salts)
OSHA PEL: 2.5 mg/m3 as fluorides

9. Physical And Chemical Properties

Appearance

Odorless silver-gray alloy in the form of flux-cored wire.

Chemical Type: Mixture
Physical State: Solid
Percent Volatiles: Not Applicable (N/A)
Vapor Pressure: N/A
Solubility: partial (flux component)

10. Stability And Reactivity

Stability: stable
Hazardous Polymerization: will not occur
Conditions To Avoid (Stability)

Some components of the product may decompose at elevated temperatures.

Incompatible Materials

Strong acids; chlorates, bromates, and iodates; halogens; chlorofluorocarbons; ammonium nitrate; chlorinated and brominated hydrocarbons; oxides of nitrogen; sulfur dioxide; organic and inorganic peroxides; cesium and rubidium carbides; cobalt fluoride; iodine pentafluoride; manganese trifluoride; nitrosyl fluoride; silver fluoride; acetic anhydride; alkali and alkali earth metals; zirconium; platinum; bromine trifluoride.

Hazardous Decomposition Products

Heating to elevated temperatures may liberate fumes of the constituent metals or their oxides and/or fluorides.

11. Toxicological Information

Chronic/Carcinogenicity

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

Mutagenicity (Genetic Effects)

Inorganic fluoride compounds have been demonstrated to induce mutagenic changes in mammalian cell in culture. The significance of these findings to human health risks is unknown.

Conditions Aggravated By Overexposure

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

Ingredient(s) - Toxicological Data

Aluminum

LD50: No data available LC50: No data available

Cesium fluoroaluminate

LD50: No data available LC50: No data available

Dipotassium fluoroaluminate

LD50: No data available LC50: No data available

Monopotassium fluoroaluminate

LD50: No data available LC50: No data available

Silicon

LD50: 3,160 mg/kg (oral/rat) LC50: No data available

Tripotassium fluoroaluminate

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

This product is not a Hazardous Substance or Dangerous Goods per USDOT/TDG/IATA/IMO regulations.

15. Regulatory Information

SARA Hazard Classes

Acute Health Hazard; Chronic Health 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): D2B

Components on Ingredients Disclosure List:

1. Aluminum, elemental (CASRN 7429-90-5)
2. Fluoride compounds, inorganic, n.o.s.

16. Other Information

Revision/Preparer Information

This MSDS Supersedes A Previous MSDS Dated: 08/19/2002

Disclaimer

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Lucas-Milhaupt, Inc.