

1. Identification

Product Identifier: **Aluminum for fabricated masonry construction products**

Manufacturer:

Hohmann & Barnard, Inc.
30 Rasons Court
Hauppauge, NY 11788
(631) 234-0600
www.h-b.com

Telephone Numbers

During normal business hours call: (800) 645-0616
24-hour emergency call Chemtrec: (800) 255-3924

Recommended use: Various aluminum products

Recommended restrictions: None known.

2. Hazards Identification

Physical hazards: Not classified.

Health hazards: Acute toxicity, inhalation Category 4
Sensitization, respiratory Category 1
Sensitization, skin Category 1
Carcinogenicity Category 2
Reproductive toxicity Category 1
Specific target organ toxicity, repeated exposure Category 1

Environmental hazards Not classified.

OSHA defined hazards Combustible dust

Label elements



Signal word : Danger

Hazard statement: Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Suspected of causing cancer by inhalation. May damage fertility or the unborn child by inhalation. Causes damage to organs through prolonged or repeated exposure by inhalation. May form combustible dust concentrations in air.

Precautionary statement:

Prevention Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Suspected of causing cancer by inhalation. May damage fertility or the unborn child by inhalation. Causes damage to organs through prolonged or repeated exposure by inhalation. May form combustible dust concentrations in air.

Response If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. If exposed or concerned: Get medical advice/attention.

Storage Store in a dry place.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations. Reuse or recycle material whenever possible.

Hazard(s) not otherwise classified (HNOC): Avoid dust formation.

Supplemental information: None.

Specific hazards

Explosion/fire hazards may be present when:

Non-combustible as supplied. Small chips, fine turnings, and dust from processing may be readily ignitable.

- Dust or fines are dispersed in air.
- Chips, dust or fines are in contact with water.
- Dust in contact with certain metal oxides (rust).
- Molten metal in contact with water/moisture or certain metal oxides (rust)

Health effects from mechanical processing (e.g., cutting, grinding): Can cause irritation of the eyes, skin and respiratory tract.

3. Composition/Information on Ingredients

Composition comments: Complete composition is provided below and may include some components classified as non-hazardous.

Chemical and common names	CAS number	%
Aluminum	7429-90-5	>88.2
Silicon	7440-21-3	0 - 11.6
Zinc	7440-66-6	0 - 6.6
Nickel	7440-02-0	0 - 6.1
Copper	7440-50-8	0 - 4.1
Manganese	7439-96-5	0 - 3.1
Magnesium	7439-95-4	0 - 3.1
Chromium	7440-47-3	0 - 0.36
Vanadium	7440-62-2	0 - 0.26
Lead	7439-92-1	0 - 0.11

4. First-Aid Measures

Eye contact	Dust and fumes from processing: Rinse eyes with plenty of water or saline for at least 15 minutes. Consult a physician.
Skin contact	Dust and fume from processing or contact with lubricant/residual oil: Wash with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.
Inhalation	Dust and fumes from processing: Remove to fresh air. Check for clear airway, breathing, and presence of pulse. If breathing is difficult, provide oxygen. Loosen any tight clothing on neck or chest. Provide cardiopulmonary resuscitation for persons without pulse or respirations. Consult a physician.
Ingestion	Not likely, due to the form of the product.
Most important symptoms/effects, acute and delayed	Dust and fume from processing or contact with lubricant/residual oil: Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.

Health effects from mechanical processing (e.g., cutting, grinding):

Contains nickel. May produce an allergic reaction. Can cause irritation of the respiratory tract. Chronic exposure: Can cause reduction in the number of red blood cells (anemia), skin abnormalities (pigmentation changes), respiratory sensitization, scarring of the lungs (pulmonary fibrosis), central nervous system damage, secondary Parkinson's disease and reproductive harm.

Additional health effects from elevated temperature processing (e.g., welding, melting): Can cause metal fume fever (nausea, chills, fever, shortness of breath and malaise), the accumulation of fluid in the lungs (pulmonary edema) and reduced ability of the blood to carry oxygen (methemoglobin). Chronic exposure: Can cause respiratory sensitization and lung cancer.

See Section 11 of the SDS for additional information on health hazards. If breathing is difficult, give oxygen. Symptoms may be delayed.

General information If exposed or concerned: Get medical advice/attention.

5. Fire-fighting measures

Suitable extinguishing media:

Use Class D extinguishing agents on dust or molten metal

Use coarse water spray on chips and turning

Apply extinguishing media carefully to avoid creating airborne dust

Unsuitable extinguishing media:

DO NOT USE halogenated extinguishing agents on small chips/dust

DO NOT USE water in fighting fires around molten metal

Special Fire Fighting Procedures: IN SHEET, OR COIL FORM, MATERIAL DOES NOT BURN. IN POWDER OR CHIP FORM, USE DRY POWDER OR SAND. DO NOT USE WATER OR HALOGEN EXTINGUISHING AGENT.

Unusual fire and explosion hazards:

WATER, OXIDIZERS AND MANY OTHER CHEMICALS REACT EXPLOSIVELY IN CONTACT WITH MOLTEN ALUMINUM. FINE CHIPS, TURNINGS, AND DUSTS IN AIR MAY EXPLODE IF IGNITION SOURCE IS PRESENT.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Avoid generating dust. Avoid contact with sharp edges or heated metal. Avoid inhalation of fumes from molten product. Molten,

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability: Stable under normal conditions of use, storage, and transportation as shipped.

Possibility of hazardous reactions: Hazardous polymerization does not occur.

Conditions to avoid: Chips, fines, dust and molten metal are considerably more reactive with the following:

- Heat: Oxidizes at a rate dependent upon temperature and particle size.
- Water: Slowly generates flammable/explosive hydrogen gas and heat. Generation rate is greatly increased with smaller particles (e.g., fines and dusts). Molten metal can react violently/explosively with water or moisture, particularly when the water is entrapped.

Incompatible Materials: Chips, fines, dust and molten metal are considerably more reactive with the following

- Strong oxidizers: Violent reaction with considerable heat generation. Can react explosively with nitrates (e.g., ammonium nitrate and fertilizers containing nitrate) when heated or molten.
- Acids and alkalis: Reacts to generate flammable/explosive hydrogen gas. Generation rate is greatly increased with smaller particles (e.g., fines and dusts)
- Halogenated compounds: Many halogenated hydrocarbons, including halogenated fire extinguishing agents, can react violently with finely divided or molten aluminum.
- Iron oxide (rust and other metal oxides (e.g., copper and lead oxides): A violent thermite reaction generating considerable heat can occur. Reaction with aluminum fines and dusts requires only generating considerable heat can occur. Reaction with aluminum fines and dusts requires only very weak ignition sources for initiation. Molten aluminum can react violently with iron oxide without external ignition source.
- Iron powder and water: Explosive reaction forming hydrogen gas when heated above 1470°F (800°C)

Thermite explosions have been reported when aluminum alloys were melted in furnaces used for alloying with lead, bismuth or other metals with low melting temperatures. These metals, when added as high purity ingots, can seep through cracks in furnace liners and become oxidized. During subsequent melts in the furnace, molten aluminum can contact these metal oxides resulting in a thermite explosion.

Hazardous decomposition products: No hazardous decomposition products are known.

11. Toxicological information

Threshold Limit Value: PLEASE NOTE SECTION 8

Signs and Symptoms of Exposure:

1. Acute Overexposure: SHORTNESS OF BREATH FROM INHALATION OF ALUMINUM DUST.
2. Chronic Overexposure: MAY AGGRAVATE BRONCHIAL CONDITIONS.

Medical Conditions Generally Aggravated by Exposure: RESPIRATORY ILLNESS.

Chemical Listed as Carcinogen or Potential Carcinogen: NO

National Toxicity Program: No I.A.R.C. Monographs: No OSHA: No

OSHA Permissible Exposure Limit: SEE SECTION 8

ACGIH Threshold Limit Value: SEE SECTION 8

Emergency and First Aid Procedures:

1. Inhalation: Fumes/Dust - REMOVE TO FRESH AIR. GET MEDICAL ATTENTION.
2. Eyes: Fumes/Dust - FLUSH WITH WATER. GET MEDICAL ATTENTION.
3. Skin: Molten State - USE COPIUS AMOUNTS OF POTABLE WATER ON EXPOSED AREAS.
4. Ingestion: N/A

12. Ecological Information

Ecotoxicity: Not expected to be harmful to aquatic organisms

Persistence and degradability: Not inherently biodegradable.

Bioaccumulative potential: The product is not bioaccumulating.

Mobility in soil: Not considered mobile.

Mobility in general: Not applicable.

Other adverse effects: None known.

13. Disposal Considerations

Disposal instructions: Reuse or recycle material whenever possible. If reuse or recycling is not possible, disposal must be made according to local or governmental regulations.

Local disposal regulations: Dispose in accordance with all applicable regulations.

Waste codes:

RCRA Status: Not federally regulated in the U.S. if disposed of "as is."

RCRA waste codes other than described here may apply depending on use of the product. Status must be determined at the point of waste generation. Refer to 40 CFR 261 or state equivalent in the U.S. TCLP testing is recommended for chromium and lead in a waste disposal scenario.

US RCRA Hazardous Waste P List: Reference

Nitric oxide	(CAS 10102-43-9)	P076
Nitrogen dioxide	(CAS 10102-44-0)	P078
Vanadium pentoxide	(CAS 1314-62-1)	P120

Waste from residues / unused products: Dispose of in accordance with local regulations.

Contaminated packaging: Dispose of in accordance with local regulations.

14. Transport information

General Shipping Information

Basic Shipping Information

ID number	-
Proper shipping name	Not regulated
Hazard class	-
Packing group	-

General Shipping Notes: When "not regulated", enter the proper freight classification, SDS Number and Product Name onto the shipping paperwork.

Disclaimer: This section provides basic classification information and, where relevant, information with respect to specific modal regulations, environmental hazards and special precautions. Otherwise, it is presumed that the information is not available/not relevant

15. Regulatory Information

US federal regulations:

In reference to Title VI of the Clean Air Act of 1990, this material does not contain nor was it manufactured using ozone-depleting chemicals. All electrical equipment must be suitable for use in hazardous atmospheres involving aluminum powder in accordance with 29 CFR 1910.307. The National Electrical Code, NFPA 70, contains guidelines for determining the type and design of equipment and installation which will meet this requirement.

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

Chromium (VI) compounds (CAS 18540-29-9)	0.1 % Annual Export Notification required.
Chromium (VI) compounds, certain water insoluble forms (CAS Not available)	0.1 % Annual Export Notification required.
Chromium (VI) compounds, water soluble forms (CAS Not available)	0.1 % Annual Export Notification required.

CERCLA Hazardous Substance List (40 CFR 302.4)

Chromium (CAS 7440-47-3)	LISTED
Chromium (II) compounds (CAS Not available)	LISTED
Chromium (III) compounds (CAS Not available)	LISTED
Chromium (VI) compounds (CAS 18540-29-9)	LISTED
Copper (CAS 7440-50-8)	LISTED
Lead (CAS 7439-92-1)	LISTED
Manganese (CAS 7439-96-5)	LISTED
Manganese compounds, inorganic (CAS Not available)	LISTED
Nickel (CAS 7440-02-0)	LISTED
Nickel compounds, insoluble (CAS Not available)	LISTED
Nitric oxide (CAS 10102-43-9)	LISTED
Nitrogen dioxide (CAS 10102-44-0)	LISTED
Vanadium pentoxide (CAS 1314-62-1)	LISTED
Zinc (CAS 7440-66-6)	LISTED
Zinc oxide (CAS 1314-13-2)	LISTED

US EPCRA Section 304 Extremely Haz. Subs. & CERCLA Haz. Subs.: Section 304 EHS reportable quantity

Nitric oxide (CAS 10102-43-9)	10 lbs
Nitrogen dioxide (CAS 10102-44-0)	10 lbs
Ozone (CAS 10028-15-6)	100 lbs
Vanadium pentoxide (CAS 1314-62-1)	1000 lbs

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Chromium (VI) compounds (CAS 18540-29-9)	Cancer
Chromium (VI) compounds, certain water insoluble forms (CAS Not available)	Cancer
Chromium (VI) compounds, water soluble forms (CAS Not available)	Cancer
Lead (CAS 7439-92-1)	Reproductive toxicity
Chromium (VI) compounds (CAS 18540-29-9)	Eye irritation
Chromium (VI) compounds, certain water insoluble forms	Eye irritation

(CAS Not available)	
Chromium (VI) compounds, water soluble forms	Eye irritation
(CAS Not available)	
Lead (CAS 7439-92-1)	Central nervous system
Chromium (VI) compounds (CAS 18540-29-9)	Skin sensitization
Chromium (VI) compounds, certain water insoluble forms	Skin sensitization
(CAS Not available)	
Chromium (VI) compounds, water soluble forms	Skin sensitization
(CAS Not available)	
Lead (CAS 7439-92-1)	Kidney
	Blood
	Acute toxicity

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 hazard categories	Immediate Hazard - Yes	If particulates/fumes generated during processing
	Delayed Hazard - Yes	If particulates/fumes generated during processing
	Fire Hazard - No	
	Pressure Hazard - No	
	Reactivity Hazard - Yes	If molten

SARA 302 Extremely hazardous substance: No
 SARA 311/312 Hazardous chemical: Yes
 SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Aluminum	7429-90-5	>88.2
Zinc	7440-66-6	0 - 6.6
Nickel	7440-02-0	0 - 6.1
Copper	7440-50-8	0 - 4.1
Manganese	7439-96-5	0 - 3.1
Lead	7439-92-1	0 - 0.11

US state regulations

US. Massachusetts RTK - Substance List

- Aluminum (CAS 7429-90-5)
- Aluminum oxide (non-fibrous) (CAS 1344-28-1) Chromium (CAS 7440-47-3)
- Copper (CAS 7440-50-8)
- Lead (CAS 7439-92-1)
- Magnesium (CAS 7439-95-4)
- Magnesium oxide (CAS 1309-48-4) Manganese (CAS 7439-96-5)
- Nickel (CAS 7440-02-0)
- Nitric oxide (CAS 10102-43-9)
- Nitrogen dioxide (CAS 10102-44-0)
- Oil mist, mineral (CAS 8012-95-1)
- Ozone (CAS 10028-15-6)
- Silicon (CAS 7440-21-3)
- Vanadium (CAS 7440-62-2)
- Vanadium pentoxide (CAS 1314-62-1)
- Zinc (CAS 7440-66-6)
- Zinc oxide (CAS 1314-13-2)

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

Aluminum (CAS 7429-90-5)	500 lbs
Aluminum oxide (non-fibrous) (CAS 1344-28-1)	500 lbs
Chromium (CAS 7440-47-3)	500 lbs
Chromium (II) compounds (CAS Not available)	500 lbs
Chromium (III) compounds (CAS Not available)	500 lbs
Chromium (VI) compounds (CAS 18540-29-9)	500 lbs
Chromium (VI) compounds, water soluble forms (CAS Not available)	500 lbs
Copper (CAS 7440-50-8)	500 lbs
Lead (CAS 7439-92-1)	500 lbs
Manganese (CAS 7439-96-5)	500 lbs
Manganese compounds, inorganic (CAS Not available)	500 lbs
Nickel (CAS 7440-02-0)	500 lbs
Nickel compounds, insoluble (CAS Not available)	500 lbs
Nitric oxide (CAS 10102-43-9)	100 lbs

Nitrogen dioxide (CAS 10102-44-0)	100 lbs
Ozone (CAS 10028-15-6)	100 lbs
Vanadium (CAS 7440-62-2)	500 lbs
Vanadium pentoxide (CAS 1314-62-1)	100 lbs
Zinc (CAS 7440-66-6)	500 lbs
Zinc oxide (CAS 1314-13-2)	500 lbs
US. Pennsylvania RTK - Hazardous Substances	
Aluminum (CAS 7429-90-5)	
Aluminum oxide (non-fibrous) (CAS 1344-28-1)	
Chromium (CAS 7440-47-3)	
Chromium (VI) compounds, certain water insoluble forms (CAS Not available)	
Chromium (VI) compounds, water soluble forms (CAS Not available)	
Copper (CAS 7440-50-8)	
Lead (CAS 7439-92-1)	
Magnesium (CAS 7439-95-4)	
Magnesium oxide (CAS 1309-48-4)	
Manganese (CAS 7439-96-5)	
Nickel (CAS 7440-02-0)	
Nitric oxide (CAS 10102-43-9)	
Nitrogen dioxide (CAS 10102-44-0)	
Oil mist, mineral (CAS 8012-95-1)	
Ozone (CAS 10028-15-6)	
Silica, amorphous (CAS 69012-64-2)	
Silicon (CAS 7440-21-3)	
Vanadium (CAS 7440-62-2)	
Vanadium pentoxide (CAS 1314-62-1)	
Zinc (CAS 7440-66-6)	
Zinc oxide (CAS 1314-13-2)	
US. Rhode Island RTK	
Aluminum (CAS 7429-90-5)	
Aluminum oxide (non-fibrous) (CAS 1344-28-1)	
Chromium (CAS 7440-47-3)	
Chromium (II) compounds (CAS Not available)	
Chromium (VI) compounds (CAS 18540-29-9)	
Chromium (VI) compounds, water soluble forms (CAS Not available)	
Copper (CAS 7440-50-8)	
Lead (CAS 7439-92-1)	
Manganese (CAS 7439-96-5)	
Manganese compounds, inorganic (CAS Not available)	
Nickel (CAS 7440-02-0)	
Nickel compounds, insoluble (CAS Not available)	
Nitric oxide (CAS 10102-43-9)	
Nitrogen dioxide (CAS 10102-44-0)	
Ozone (CAS 10028-15-6)	
Vanadium (CAS 7440-62-2)	
Vanadium pentoxide (CAS 1314-62-1)	
Zinc (CAS 7440-66-6)	
Zinc oxide (CAS 1314-13-2)	
US. California Proposition 65	
WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.	
US - California Proposition 65 - CRT: Listed date/Carcinogenic substance	
Chromium (VI) compounds (CAS 18540-29-9)	Listed: February 27, 1987
Chromium (VI) compounds, certain water insoluble forms (CAS Not available)	Listed: February 27, 1987
Chromium (VI) compounds, water soluble forms (CAS Not available)	Listed: February 27, 1987
Lead (CAS 7439-92-1)	Listed: October 1, 1992
Nickel (CAS 7440-02-0)	Listed: May 7, 2004
Nickel compounds, insoluble (CAS Not available)	Listed: May 7, 2004
Vanadium pentoxide (CAS 1314-62-1)	Listed: February 11, 2005
US - California Proposition 65 - CRT: Listed date/Developmental toxin	

Chromium (VI) compounds (CAS 18540-29-9)	Listed: December 19, 2008
Chromium (VI) compounds, certain water insoluble forms (CAS Not available)	Listed: December 19, 2008
Chromium (VI) compounds, water soluble forms (CAS Not available)	Listed: December 19, 2008
Lead (CAS 7439-92-1)	Listed: February 27, 1987
US - California Proposition 65 - CRT: Listed date/Female reproductive toxin	
Chromium (VI) compounds (CAS 18540-29-9)	Listed: December 19, 2008
Chromium (VI) compounds, certain water insoluble forms (CAS Not available)	Listed: December 19, 2008
Chromium (VI) compounds, water soluble forms (CAS Not available)	Listed: December 19, 2008
Lead (CAS 7439-92-1)	Listed: February 27, 1987
US - California Proposition 65 - CRT: Listed date/Male reproductive toxin	
Chromium (VI) compounds (CAS 18540-29-9)	Listed: December 19, 2008
Chromium (VI) compounds, certain water insoluble forms (CAS Not available)	Listed: December 19, 2008
Chromium (VI) compounds, water soluble forms (CAS Not available)	Listed: December 19, 2008
Lead (CAS 7439-92-1)	Listed: February 27, 1987

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue Date: May 31, 2015

Revision Date: May 31, 2015

Disclaimer: All information, recommendations, and suggestions appearing herein concerning this product are taken from sources or based upon data believed to be reliable. Although reasonable care has been taken in the preparation of this information, Hohmann & Barnard extends no warranties or guarantees, express or implied, makes no representations, and assumes no responsibility as to the accuracy, reliability or completeness of the information presented. Since the actual use of the product described herein is beyond our control, POSCO assumes no liability arising out of the use of the product by others. It is the user's responsibility to determine the suitability of the information presented herein, to assess the safety and toxicity of the product under their own conditions of use, and to comply with all applicable laws and regulations. Appropriate warnings and safe handling procedures should be provided to handlers and users.

