

SAFETY DATA SHEET



Aluminum Extrusions, Billets or Logs

Section 1. Identification

- GHS product identifier** : Aluminum Extrusions, Billets or Logs
- Product code** : Not available.
- Other means of identification** : 6XXX Series Alloys including: 6005, 6005A, 6060, 6061, 6063, 6082, 6105, 6181, 6351, 6360, 6463; Aluminum; Wrought Aluminum Products
- Product type** : Massive metal.
Not hazardous in solid form. If dust or fumes are generated during processing (e.g., brazing, cutting, grinding, sawing, and welding) hazardous chemicals could be released.

Relevant identified uses of the substance or mixture and uses advised against

- Product use** : Various extruded and/or fabricated aluminum parts, products and cast billet.
- Area of application** : Industrial applications.

- Manufacturer** : **Bonnell Aluminum, Inc.**
25 Bonnell Street, Newnan, GA 30263

Website: BonnellAluminum.com
Telephone no.: (770) 254-2020

- Emergency telephone number (with hours of operation)** : Chemtrec (North America): 1-800-424-9300 (24 hours)

Section 2. Hazards identification

This product, under the normal conditions of use, meets the definition of an "ARTICLE".
If dust or fumes are generated during processing (e.g., brazing, cutting, grinding, sawing, and welding) hazardous chemicals could be released.

- OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

- Classification of the substance or mixture** : Not classified.

GHS label elements

- Signal word** : No signal word.
- Hazard statements** : No known significant effects or critical hazards.

Precautionary statements

- Prevention** : P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing and eye or face protection.
P260 - Do not breathe dust.
- Response** : Not applicable.
- Storage** : Not applicable.
- Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

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Section 2. Hazards identification

Hazards not otherwise classified : **Danger.**
 If dust or fumes are generated during processing (e.g., brazing, cutting, grinding, sawing, and welding) hazardous chemicals could be released.
 May cause an allergic skin reaction.
 Suspected of causing cancer.
 May damage fertility or the unborn child.
 May cause harm to breast-fed children.
 May cause damage to organs through prolonged or repeated exposure.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : 6XXX Series Alloys including: 6005, 6005A, 6060, 6061, 6063, 6082, 6105, 6181, 6351, 6360, 6463; Aluminum; Wrought Aluminum Products

Ingredient name	Other names	%	CAS number
<input checked="" type="checkbox"/> aluminum, non flammable solid	-	≥90	7429-90-5
<input type="checkbox"/> magnesium, non flammable solid	-	≤5	7439-95-4
<input type="checkbox"/> zinc	-	≤5	7440-66-6
<input type="checkbox"/> silicon	-	≤3	7440-21-3
<input type="checkbox"/> manganese	-	≤3	7439-96-5
<input type="checkbox"/> copper	-	≤3	7440-50-8
<input type="checkbox"/> chromium	-	≤1	7440-47-3
<input type="checkbox"/> lead	-	<1	7439-92-1
<input type="checkbox"/> titanium	-	≤0.3	7440-32-6
<input type="checkbox"/> nickel	-	≤0.3	7440-02-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Section 4. First aid measures

This product, under the normal conditions of use, meets the definition of an "ARTICLE".

If dust or fumes are generated during processing (e.g., brazing, cutting, grinding, sawing, and welding) hazardous chemicals could be released.

Description of necessary first aid measures

Eye contact : Get medical attention if any damage to the eye is caused by the metal.
Inhalation : Not applicable.
Skin contact : Flush contaminated skin with plenty of water. Cuts should be treated promptly and covered.
Ingestion : Not applicable.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Not applicable.
Inhalation : Not applicable.
Skin contact : No known significant effects or critical hazards.
Ingestion : Not applicable.

Over-exposure signs/symptoms

Eye contact : No specific data.

Section 4. First aid measures

- Inhalation** : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments : No specific treatment.
Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

This product, under the normal conditions of use, meets the definition of an "ARTICLE".

If dust or fumes are generated during processing (e.g., brazing, cutting, grinding, sawing, and welding) hazardous chemicals could be released.

Extinguishing media

- Suitable extinguishing media** : Use approved Class D extinguisher or smother with dry sand, dry clay or dry ground limestone.
Unsuitable extinguishing media : Do not use water jet.
 Halogen (HCFC) extinguisher.

Specific hazards arising from the chemical : No specific fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide
 nitrogen oxides
 metal oxide/oxides
 Halides
 hydrogen cyanide
 hydrogen chloride

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : No special protection is required.

Remark : Solid.: Non-combustible. Not considered to be a product presenting a risk of explosion. Material in powder form, capable of creating a dust explosion. Molten material reacts violently with water and can react with aluminum, tin, zinc and their alloys to generate flammable and explosive hydrogen gas.

Section 6. Accidental release measures

This product, under the normal conditions of use, meets the definition of an "ARTICLE".

If dust or fumes are generated during processing (e.g., brazing, cutting, grinding, sawing, and welding) hazardous chemicals could be released.

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : No specific hazard.

Methods and materials for containment and cleaning up

- Small spill** : Restack safely. Take care with items that are sharp or heavy or hot. Aluminum does not change color or glow when hot/heated.
- Large spill** : Restack safely. Take care with items that are sharp or heavy or hot. Aluminum does not change color or glow when hot/heated. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

This product, under the normal conditions of use, meets the definition of an "ARTICLE".

If dust or fumes are generated during processing (e.g., brazing, cutting, grinding, sawing, and welding) hazardous chemicals could be released.

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Take care with items that are sharp or heavy or hot. Take care with items that are sharp or heavy or hot.
- Advice on general occupational hygiene** : Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
aluminum, non flammable solid	NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Respirable fraction TWA: 10 mg/m ³ 10 hours. Form: Total
magnesium, non flammable solid	OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ , (as Al) 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ , (as Al) 8 hours. Form: Total dust
zinc	ACGIH TLV (United States, 3/2020). TWA: 1 mg/m ³ 8 hours. Form: Respirable fraction None. None.

Section 8. Exposure controls/personal protection

silicon	<p>NIOSH REL (United States, 10/2016). TWA: 5 mg/m³ 10 hours. Form: Respirable fraction TWA: 10 mg/m³ 10 hours. Form: Total</p> <p>OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust</p>
manganese	<p>NIOSH REL (United States, 10/2016). TWA: 1 mg/m³, (as Mn) 10 hours. Form: Fume STEL: 3 mg/m³, (as Mn) 15 minutes. Form: Fume</p> <p>OSHA PEL (United States, 5/2018). CEIL: 5 mg/m³, (as Mn) Form: Fume</p> <p>ACGIH TLV (United States, 3/2020). TWA: 0.1 mg/m³, (as Mn) 8 hours. Form: Inhalable fraction TWA: 0.02 mg/m³, (as Mn) 8 hours. Form: Respirable fraction</p>
copper	<p>ACGIH TLV (United States, 3/2020). TWA: 1 mg/m³, (as Cu) 8 hours. Form: Dust and mist TWA: 0.2 mg/m³ 8 hours. Form: Fume</p> <p>NIOSH REL (United States, 10/2016). TWA: 1 mg/m³, (as Cu) 10 hours. Form: Dusts and Mists</p> <p>OSHA PEL (United States, 5/2018). TWA: 1 mg/m³ 8 hours. Form: Dusts and Mists TWA: 0.1 mg/m³ 8 hours. Form: Fume</p>
chromium	<p>NIOSH REL (United States, 10/2016). TWA: 0.5 mg/m³ 8 hours.</p> <p>ACGIH TLV (United States, 3/2020). TWA: 0.5 mg/m³, (measured as Cr) 8 hours. Form: Inhalable fraction</p> <p>OSHA PEL (United States, 5/2018). TWA: 1 mg/m³, (as Cr) 8 hours.</p>
lead	<p>ACGIH TLV (United States, 3/2020). TWA: 0.05 mg/m³, (as Pb) 8 hours.</p> <p>NIOSH REL (United States, 10/2016). TWA: 0.05 mg/m³ 8 hours.</p> <p>OSHA PEL (United States, 5/2018). TWA: 50 µg/m³, (as Pb) 8 hours.</p>
titanium	None.
nickel	<p>ACGIH TLV (United States, 3/2020). TWA: 1.5 mg/m³ 8 hours. Form: Inhalable fraction</p> <p>NIOSH REL (United States, 10/2016). TWA: 0.015 mg/m³, (as Ni) 10 hours.</p> <p>OSHA PEL (United States, 5/2018). TWA: 1 mg/m³, (as Ni) 8 hours.</p>

Appropriate engineering controls : No special ventilation requirements.

Environmental exposure controls : Not applicable.

Individual protection measures

Hygiene measures : Wash thoroughly after handling.

Section 8. Exposure controls/personal protection

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Use strong, cut-resistant gloves suitable for handling metals.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Not applicable.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Solid. [Various]
- Color** : Gray. / Silver.
- Odor** : Odorless.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point** : 593 to 704°C (1099.4 to 1299.2°F)
- Boiling point** : Not available.
- Flash point** : Not applicable.
- Evaporation rate** : Not applicable.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not applicable.
- Vapor pressure** : Not applicable.
- Vapor density** : Not applicable.
- Relative density** : 2.5 to 2.9 [Water = 1]
- Density** : 2.69 to 2.74 g/cm³
- Solubility** : Insoluble in the following materials: cold water and hot water.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- SADT** : Not available.
- Viscosity** : Not applicable.
- Flow time (ISO 2431)** : Not applicable.

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** : Avoid dust generation.
- Incompatible materials** : Molten aluminum is reactive with water. Aluminum particles are reactive or incompatible with water, humidity, strong alkalis, strong acids, halogenated acids and strong oxidizing materials.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
silicon	LD50 Oral	Rat	3160 mg/kg	-
manganese	LC50 Inhalation Dusts and mists	Rat	5.14 mg/l	4 hours
	LD50 Oral	Rat	9 g/kg	-
copper	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5.11 mg/l	4 hours
lead	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5.05 mg/l	4 hours
	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
silicon	Eyes - Mild irritant	Rabbit	-	3 mg	-
manganese	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

Not available.

Conclusion/Summary

Skin : Dust : May cause sensitization by skin contact.

Mutagenicity

Conclusion/Summary : Not available.

Section 11. Toxicological information

Carcinogenicity

Conclusion/Summary : Contains material which can cause cancer.
Dust (prolonged exposure): Can cause cancer.

Classification

Product/ingredient name	OSHA	IARC	NTP
<input checked="" type="checkbox"/> Chromium	-	3	-
lead	-	2B	Reasonably anticipated to be a human carcinogen.
nickel	-	2B	Reasonably anticipated to be a human carcinogen.

Reproductive toxicity

Conclusion/Summary : Contains material which can impair fertility.
Dust (prolonged exposure): Possible risk of impaired fertility.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
<input checked="" type="checkbox"/> Manganese	Category 2	-	central nervous system (CNS), lungs
lead	Category 1	oral, inhalation	blood system, kidneys, nervous system
nickel	Category 1	inhalation	respiratory tract

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Not applicable.
Inhalation : Not applicable.
Skin contact : No known significant effects or critical hazards.
Ingestion : Not applicable.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Section 11. Toxicological information

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Contains material that may cause target organ damage, based on animal data.
Dust : May cause damage to organs through prolonged or repeated exposure.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
<input checked="" type="checkbox"/> Aluminum Extrusions, Billets or Logs	9812.6	N/A	N/A	N/A	N/A
silicon	3160	N/A	N/A	N/A	N/A
manganese	9000	N/A	N/A	N/A	5.14
lead	2500	2500	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure	
<input checked="" type="checkbox"/> aluminum, non flammable solid	Acute LC50 38000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours	
	Acute LC50 120 µg/l Fresh water	Fish - Oncorhynchus mykiss - Embryo	96 hours	
	Chronic NOEC 9 mg/l Fresh water	Aquatic plants - Ceratophyllum demersum	3 days	
	zinc	Acute EC50 0.005 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
		Acute EC50 10000 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute IC50 65 µg/l Marine water	Algae - Nitzschia closterium - Exponential growth phase	4 days	
	Acute LC50 65 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours	
	Acute LC50 68 µg/l Fresh water	Daphnia - Daphnia magna	48 hours	
	Acute LC50 12.21 µg/l Marine water	Fish - Periophthalmus waltoni - Adult	96 hours	
	Chronic EC10 27.3 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours	
	Chronic EC10 59.2 µg/l Fresh water	Daphnia - Daphnia magna	21 days	
	Chronic NOEC 9 mg/l Fresh water	Aquatic plants - Ceratophyllum	3 days	

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manganese	Chronic NOEC 178 µg/l Marine water	demersum	21 days
	Chronic NOEC 2.6 µg/l Fresh water	Crustaceans - Palaemon elegans	4 weeks
copper	Acute EC50 31000 µg/l Fresh water	Fish - Cyprinus carpio	4 days
	Acute LC50 29000 µg/l Fresh water	Aquatic plants - Lemna minor	48 hours
	Acute LC50 28 mg/l Fresh water	Daphnia - Daphnia magna	96 hours
	Chronic NOEC 1.7 mg/l Fresh water	Daphnia - Water Flea- Ceriodaphnia dubia	8 days
	Acute EC50 1100 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute EC50 2.1 µg/l Fresh water	Daphnia - Daphnia longispina - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute IC50 13 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute IC50 5.4 mg/l Marine water	Aquatic plants - Plantae - Exponential growth phase	72 hours
	Acute LC50 0.072 µg/l Marine water	Crustaceans - Amphipoda - Adult	48 hours
	Acute LC50 7.56 µg/l Marine water	Fish - Periophthalmus waltoni - Adult	96 hours
chromium	Chronic NOEC 2.5 µg/l Marine water	Algae - Nitzschia closterium - Exponential growth phase	72 hours
	Chronic NOEC 7 mg/l Fresh water	Aquatic plants - Ceratophyllum demersum	3 days
	Chronic NOEC 0.02 mg/l Fresh water	Crustaceans - Cambarus bartonii - Mature	21 days
	Chronic NOEC 2 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.8 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks
	Acute EC50 0.2 ppm Marine water	Algae - Bacillariophyta	72 hours
	Acute EC50 5 ppm Marine water	Algae - Macrocytis pyrifera - Young	4 days
	Acute EC50 35000 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute LC50 45 µg/l Fresh water	Crustaceans - Ceriodaphnia reticulata	48 hours
	lead	Acute LC50 22 µg/l Fresh water	Daphnia - Daphnia magna
Acute LC50 13.9 ppm Fresh water		Fish - Anguilla rostrata	96 hours
Chronic NOEC 50 mg/l Marine water		Algae - Glenodinium halli	72 hours
Chronic NOEC 0.19 µg/l Fresh water		Fish - Cyprinus carpio	4 weeks
Acute EC50 105 ppb Marine water		Algae - Chaetoceros sp. - Exponential growth phase	72 hours
Acute EC50 0.489 mg/l Marine water		Algae - Ulva pertusa	96 hours
Acute EC50 8000 µg/l Fresh water		Aquatic plants - Lemna minor	4 days
Acute LC50 530 µg/l Fresh water		Crustaceans - Ceriodaphnia reticulata	48 hours
Acute LC50 0.594 mg/l Fresh water		Daphnia - Daphnia magna	48 hours
Acute LC50 0.44 ppm Fresh water		Fish - Cyprinus carpio - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
nickel	Chronic NOEC 0.25 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.03 µg/l Fresh water	Fish - Cyprinus carpio	4 weeks
	Acute EC50 2 ppm Marine water	Algae - Macrocytis pyrifera - Young	4 days
	Acute EC50 450 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute EC50 1000 µg/l Marine water	Daphnia - Daphnia magna	48 hours
Acute IC50 0.31 mg/l Marine water	Crustaceans - Americamysis bahia - Juvenile (Fledgling,	48 hours	

Section 12. Ecological information

	Acute LC50 47.5 ng/L Fresh water Chronic NOEC 100 mg/l Marine water Chronic NOEC 3.5 µg/l Fresh water	Hatchling, Weanling) Fish - Heteropneustes fossilis Algae - Glenodinium halli Fish - Cyprinus carpio	96 hours 72 hours 4 weeks
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Conclusion/Summary : Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
silicon	57 to 77	-	high

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

This product, under the normal conditions of use, meets the definition of an "ARTICLE".

If dust or fumes are generated during processing (e.g., brazing, cutting, grinding, sawing, and welding) hazardous chemicals could be released.

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Reuse or recycle material whenever possible. If reuse or recycling is not possible, disposal must be made in accordance with local and governmental regulations.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-

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Section 14. Transport information

Environmental hazards	No.	No.	No.
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Additional information

DOT Classification : **Reportable quantity** 2500 lbs / 1135 kg. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
Remarks Not Applicable when shipped as massive solid metal.

Special precautions for user : Not Applicable when shipped as massive solid metal.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 6 proposed risk management**: lead
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are active or exempted.
 Clean Water Act (CWA) 307: zinc; copper; chromium; lead; nickel

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

Name	%	Classification
<input checked="" type="checkbox"/> magnesium, non flammable solid	≤5	SUBSTANCES AND MIXTURES, WHICH IN CONTACT WITH WATER, EMIT FLAMMABLE GASES - Category 3 FLAMMABLE SOLIDS - Category 2 EYE IRRITATION - Category 2B FLAMMABLE SOLIDS - Category 2 EYE IRRITATION - Category 2B TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 COMBUSTIBLE DUSTS
silicon	≤3	
manganese	≤3	
copper	≤3	

Section 15. Regulatory information

lead	<1	CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1A TOXIC TO REPRODUCTION - Effects on or via lactation SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
titanium	≤0.3	FLAMMABLE SOLIDS - Category 1
nickel	≤0.3	SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	aluminum, non flammable solid	7429-90-5	≥90
	zinc	7440-66-6	≤5
	manganese	7439-96-5	≤3
	copper	7440-50-8	≤3
	lead	7439-92-1	<1
	nickel	7440-02-0	≤0.3
Supplier notification	aluminum, non flammable solid	7429-90-5	≥90
	zinc	7440-66-6	≤5
	manganese	7439-96-5	≤3
	copper	7440-50-8	≤3
	lead	7439-92-1	<1
	nickel	7440-02-0	≤0.3

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts

: The following components are listed: ALUMINUM; MAGNESIUM; ZINC; SILICON DUST; MANGANESE; COPPER

New York

: The following components are listed: Zinc; Copper; Lead; Nickel

New Jersey

: The following components are listed: ALUMINUM; MAGNESIUM; ZINC; SILICON; MANGANESE; COPPER; LEAD; NICKEL

Pennsylvania

: The following components are listed: ALUMINUM; MAGNESIUM; ZINC COMPOUNDS; SILICON; MANGANESE COMPOUNDS; COPPER FUME; LEAD COMPOUNDS; NICKEL CATALYST

California Prop. 65

⚠ WARNING: This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including Nickel, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
Lead	Yes.	Yes.
Nickel	-	-

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Section 15. Regulatory information

[Stockholm Convention on Persistent Organic Pollutants](#)

Not listed.

[Rotterdam Convention on Prior Informed Consent \(PIC\)](#)

Not listed.

[UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Ingredient name	List name	Status
Lead (Pb)	Heavy metals - Annex 1	Listed

Section 16. Other information

[Hazardous Material Information System \(U.S.A.\)](#)

Health	1	0
Flammability	1	0
Physical hazards	0	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

[National Fire Protection Association \(U.S.A.\)](#)



[Procedure used to derive the classification](#)

Classification	Justification
Not classified.	

[History](#)

Date of issue/Date of revision	: 11/16/2020
Date of previous issue	: 03/25/2020
Version	: 2
Prepared by	: Sphera Solutions
Key to abbreviations	: ATE = Acute Toxicity Estimate AMP = Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient

Section 16. Other information

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

UN = United Nations

References

: HCS (U.S.A.)- Hazard Communication Standard
International transport regulations

✔ Indicates information that has changed from previously issued version.

Notice to reader

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