Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Revision Date: 08/17/2018 Date of Issue: 10/09/2014

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Aluminum billet

Product Name: Aluminum Alloys with Lead Addition (6042, 6262, C06N)

1.2. Intended Use of the Product

Various aluminum extruded parts and products

1.3. Name, Address, and Telephone of the Responsible Party

Company

Hydro Extrusion USA, LLC 6250 N. River Rd Suite, 5000

Rosemont, IL 60018 Phone: 847-939-2912

1.4. Emergency Telephone Number

Emergency Number : USA: Chemtrec: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Carc. 1B H350 Lact H362 Repr. 1A H360

Full text of hazard classes and H-statements: see section 16

2.2. Label Elements

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA)



Signal Word (GHS-US/CA) : Danger

Hazard Statements (GHS-US/CA) : H350 - May cause cancer.

H360 - May damage fertility or the unborn child. H362 - May cause harm to breast-fed children.

Precautionary Statements (GHS-US/CA): P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe dust, fume.

P263 - Avoid contact during pregnancy/while nursing.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P280 - Wear protective gloves, protective clothing, and eye protection. P308+P313 - If exposed or concerned: Get medical advice/attention.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, and

international regulations.

2.3. Other Hazards

Inhalation of dusts and fumes can cause metal fume fever. Symptoms can include a metallic or sweet taste in the mouth, sweating, shivering, headache, throat irritation, fever, chills, thirstiness, muscle aches, nausea, vomiting, weakness, fatigue, and shortness of breath. Small chips, fine turnings and dust from processing may be readily ignitable or generate explosive hydrogen gas and heat in contact with water. This product contains components that are environmentally hazardous and small chips, fine turnings, and dust from processing may be toxic to aquatic life.

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2.4. Unknown Acute Toxicity (GHS-US/CA)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Product Identifier	% *	GHS Ingredient Classification
Aluminum	(CAS-No.) 7429-90-5	> 83	Flam. Sol. 1, H228
			Water-react. 2, H261
			Comb. Dust
Silicon	(CAS-No.) 7440-21-3	< 12.6	Comb. Dust
Copper	(CAS-No.) 7440-50-8	< 6.1	Aquatic Acute 1, H400
			Aquatic Chronic 3, H412
			Comb. Dust
Magnesium	(CAS-No.) 7439-95-4	< 1.4	Flam. Sol. 1, H228
			Self-heat. 1, H251
			Water-react. 2, H261
			Comb. Dust
Iron	(CAS-No.) 7439-89-6	< 1.1	Comb. Dust
Lead	(CAS-No.) 7439-92-1	< 0.8	Carc. 1B, H350
			Lact, H362
			Repr. 1A, H360
			STOT RE 1, H372
			Aquatic Acute 1, H400
			Aquatic Chronic 1, H410
			Comb. Dust
Manganese	(CAS-No.) 7439-96-5	< 0.4	Comb. Dust
Chromium	(CAS-No.) 7440-47-3	< 0.4	Comb. Dust

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible). **Inhalation:** Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Skin Contact: Rinse immediately with plenty of water. Remove contaminated clothing. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Warning! Contains lead. Lead poisoning can occur via an acute dose or through chronic exposure. Symptoms of lead poisoning include headaches, abdominal pain, memory loss, kidney failure, anemia, change in skin tone or pallor, reproductive problems in men, weakness, pain, or tingling in the extremities.

Inhalation: May cause respiratory irritation. Inhalation of dusts and fumes can cause metal fume fever. Symptoms can include a metallic or sweet taste in the mouth, sweating, shivering, headache, throat irritation, fever, chills, thirstiness, muscle aches, nausea, vomiting, weakness, fatigue, and shortness of breath.

Skin Contact: May cause skin irritation. **Eye Contact:** May cause eye irritation.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

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^{*}Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

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Chronic Symptoms: May cause cancer. May damage fertility. May damage the unborn child. May cause harm to breast-fed children.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Small chips, turnings, dust and fines from processing may be readily ignitable.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Metal oxides.

Other Information: Refer to Section 9 for flammability properties.

Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid breathing (dust,fume).

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Eliminate ignition sources. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain and collect as any solid. Avoid generation of dust during clean-up of spills.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

7.3. Specific End Use(s)

Various aluminum extruded parts and products

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

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For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

governments.				
Aluminum (7429-90-5)				
USA ACGIH	ACGIH TWA (mg/m³)	1 mg/m³ (respirable particulate matter)		
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen		
USA OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust)		
		5 mg/m³ (respirable fraction)		
USA NIOSH	NIOSH REL (TWA) (mg/m³)	10 mg/m³ (total dust)		
		5 mg/m³ (respirable dust)		
Alberta	OEL TWA (mg/m³)	10 mg/m³ (dust)		
British Columbia	OEL TWA (mg/m³)	1 mg/m³ (respirable)		
Manitoba	OEL TWA (mg/m³)	1 mg/m³ (respirable particulate matter)		
New Brunswick	OEL TWA (mg/m³)	10 mg/m³ (metal dust)		
Newfoundland & Labrador	OEL TWA (mg/m³)	1 mg/m³ (respirable particulate matter)		
Nova Scotia	OEL TWA (mg/m³)	1 mg/m³ (respirable particulate matter)		
Nunavut	OEL STEL (mg/m³)	20 mg/m³ (metal-dust)		
Nunavut	OEL TWA (mg/m³)	10 mg/m³ (metal-dust)		
Northwest Territories	OEL STEL (mg/m³)	20 mg/m³ (metal-dust)		
Northwest Territories	OEL TWA (mg/m³)	10 mg/m³ (metal-dust)		
Ontario	OEL TWA (mg/m³)	1 mg/m³ (respirable)		
Prince Edward Island	OEL TWA (mg/m³)	1 mg/m³ (respirable particulate matter)		
Québec	VEMP (mg/m³)	10 mg/m³		
Saskatchewan	OEL STEL (mg/m³)	20 mg/m³ (dust)		
Saskatchewan	OEL TWA (mg/m³)	10 mg/m³ (dust)		
Silicon (7440-21-3)				
USA OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust)		
	, , , , ,	5 mg/m³ (respirable fraction)		
USA NIOSH	NIOSH REL (TWA) (mg/m³)	10 mg/m³ (total dust)		
	, ,, ,,	5 mg/m³ (respirable dust)		
British Columbia	OEL TWA (mg/m³)	10 mg/m³ (total dust)		
		3 mg/m³ (respirable fraction)		
New Brunswick	OEL TWA (mg/m³)	10 mg/m³		
Nunavut	OEL STEL (mg/m³)	20 mg/m³		
Nunavut	OEL TWA (mg/m³)	10 mg/m³		
Northwest Territories	OEL STEL (mg/m³)	20 mg/m³		
Northwest Territories	OEL TWA (mg/m³)	10 mg/m³		
Québec	VEMP (mg/m³)	10 mg/m³ (containing no Asbestos and <1% Crystalline		
		silica-total dust)		
Saskatchewan	OEL STEL (mg/m³)	20 mg/m³		
Saskatchewan	OEL TWA (mg/m³)	10 mg/m³		
Yukon	OEL STEL (mg/m³)	20 mg/m³		
Yukon	OEL TWA (mg/m³)	30 mppcf		
		10 mg/m³		
Copper (7440-50-8)				
USA ACGIH	ACGIH TWA (mg/m³)	0.2 mg/m³ (fume)		
USA OSHA	OSHA PEL (TWA) (mg/m³)	0.1 mg/m³ (fume)		
		1 mg/m³ (dust and mist)		
USA NIOSH	NIOSH REL (TWA) (mg/m³)	1 mg/m³ (dust and mist)		
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.1 mg/m³ (fume)		
USA IDLH	US IDLH (mg/m³)	100 mg/m³ (dust, fume and mist)		
		· - · · · · · · · · · · · · · · · · · ·		

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Alberta	OEL TWA (mg/m³)	0.2 mg/m³ (fume)
		1 mg/m³ (dust and mist)
British Columbia	OEL TWA (mg/m³)	1 mg/m³ (dust and mist)
		0.2 mg/m³ (fume)
Manitoba	OEL TWA (mg/m³)	0.2 mg/m³ (fume)
New Brunswick	OEL TWA (mg/m³)	0.2 mg/m³ (fume)
		1 mg/m³ (dust and mist)
Newfoundland & Labrador	OEL TWA (mg/m³)	0.2 mg/m³ (fume)
Nova Scotia	OEL TWA (mg/m³)	0.2 mg/m³ (fume)
Nunavut	OEL STEL (mg/m³)	3 mg/m³ (dust and mist)
		0.6 mg/m³ (fume)
Nunavut	OEL TWA (mg/m³)	0.2 mg/m³ (fume)
		1 mg/m³ (dust and mist)
Northwest Territories	OEL STEL (mg/m³)	3 mg/m³ (dust and mist)
	, 3	0.6 mg/m³ (fume)
Northwest Territories	OEL TWA (mg/m³)	0.2 mg/m³ (fume)
	, , ,	1 mg/m³ (dust and mist)
Ontario	OEL TWA (mg/m³)	0.2 mg/m³ (fume)
	, ,	1 mg/m³ (dust and mist)
Prince Edward Island	OEL TWA (mg/m³)	0.2 mg/m³ (fume)
Québec	VEMP (mg/m³)	0.2 mg/m³ (fume)
—	, ,	1 mg/m³ (dust and mist)
Saskatchewan	OEL STEL (mg/m³)	0.6 mg/m³ (fume)
	0==0:==(6,,	3 mg/m³ (dust and mist)
Saskatchewan	OEL TWA (mg/m³)	0.2 mg/m³ (fume)
Suskatonestan	322 · · · · · (g/ /	1 mg/m³ (dust and mist)
Yukon	OEL STEL (mg/m³)	0.2 mg/m³ (fume)
· unon	3223122 (g/ /	2 mg/m³ (dust and mist)
Yukon	OEL TWA (mg/m³)	0.2 mg/m³ (fume)
Takon	OLL TWIT (IIIg) III)	1 mg/m³ (dust and mist)
Manganese (7439-96-5)		1 mg/m (dast and mist)
USA ACGIH	ACGIH TWA (mg/m³)	0.02 mg/m³ (respirable particulate matter)
USA ACGIH	ACGIR TWA (IIIg/III)	0.02 mg/m³ (inhalable particulate matter)
LICA ACCILI	ACCIII shamisal satagami	
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen 5 mg/m³ (fume)
USA OSHA	OSHA PEL (Ceiling) (mg/m³)	
USA NIOSH	NIOSH REL (TWA) (mg/m³)	1 mg/m³ (fume)
USA NIOSH	NIOSH REL (STEL) (mg/m³)	3 mg/m³
USA IDLH	US IDLH (mg/m³)	500 mg/m³
Alberta	OEL TWA (mg/m³)	0.2 mg/m³
British Columbia	OEL TWA (mg/m³)	0.2 mg/m³
Manitoba	OEL TWA (mg/m³)	0.02 mg/m³ (respirable particulate matter)
	200	0.1 mg/m³ (inhalable particulate matter)
New Brunswick	OEL TWA (mg/m³)	0.2 mg/m ³
Newfoundland & Labrador	OEL TWA (mg/m³)	0.02 mg/m³ (respirable particulate matter)
		0.1 mg/m³ (inhalable particulate matter)
Nova Scotia	OEL TWA (mg/m³)	0.02 mg/m³ (respirable particulate matter)
		0.1 mg/m³ (inhalable particulate matter)
Nunavut	OEL STEL (mg/m³)	0.6 mg/m³
Nunavut	OEL TWA (mg/m³)	0.2 mg/m³
Northwest Territories	OEL STEL (mg/m³)	0.6 mg/m³
Northwest Territories	OEL TWA (mg/m³)	0.2 mg/m³
Ontario	OEL TWA (mg/m³)	0.2 mg/m³

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		0.02 mg/m3 (magning has negation) (rebruary 11, 2015).
Prince Edward Island	OEL TWA (mg/m³)	0.02 mg/m³ (respirable particulate matter)
Outher	VENAD (13)	0.1 mg/m³ (inhalable particulate matter)
Québec	VEMP (mg/m³)	0.2 mg/m³ (total dust and fume)
Saskatchewan	OEL STEL (mg/m³)	0.6 mg/m³
Saskatchewan	OEL TWA (mg/m³)	0.2 mg/m³
Yukon	OEL Ceiling (mg/m³)	5 mg/m³
Chromium (7440-47-3)	-	
USA ACGIH	ACGIH TWA (mg/m³)	0.5 mg/m³
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA OSHA	OSHA PEL (TWA) (mg/m³)	1 mg/m³
USA NIOSH	NIOSH REL (TWA) (mg/m³)	0.5 mg/m ³
USA IDLH	US IDLH (mg/m³)	250 mg/m ³
Alberta	OEL TWA (mg/m³)	0.5 mg/m ³
British Columbia	OEL TWA (mg/m³)	0.5 mg/m ³
Manitoba	OEL TWA (mg/m³)	0.5 mg/m ³
New Brunswick	OEL TWA (mg/m³)	0.5 mg/m³
Newfoundland & Labrador	OEL TWA (mg/m³)	0.5 mg/m³
Nova Scotia	OEL TWA (mg/m³)	0.5 mg/m³
Nunavut	OEL STEL (mg/m³)	1.5 mg/m³ (metal)
Nunavut	OEL TWA (mg/m³)	0.5 mg/m³ (metal)
Northwest Territories	OEL STEL (mg/m³)	1.5 mg/m³ (metal)
Northwest Territories	OEL TWA (mg/m³)	0.5 mg/m³ (metal)
Ontario	OEL TWA (mg/m³)	0.5 mg/m ³
Prince Edward Island	OEL TWA (mg/m³)	0.5 mg/m³
Québec	VEMP (mg/m³)	0.5 mg/m³
Saskatchewan	OEL STEL (mg/m³)	1.5 mg/m ³
Saskatchewan	OEL TWA (mg/m³)	0.5 mg/m³
Yukon	OEL STEL (mg/m³)	3 mg/m³
Yukon	OEL TWA (mg/m³)	0.1 mg/m³
Lead (7439-92-1)		
USA ACGIH	ACGIH TWA (mg/m³)	0.05 mg/m ³
USA ACGIH	ACGIH chemical category	Confirmed Animal Carcinogen with Unknown Relevance to
	,	Humans
USA ACGIH	Biological Exposure Indices (BEI)	200 µg/l Parameter: Lead - Medium: blood - Sampling
	,	time: not critical (Note: Persons applying this BEI are
		encouraged to counsel female workers of child-bearing age
		about the risk of delivering a child with a PbB (lead in
		blood level) over the current CDC reference value.)
USA OSHA	OSHA PEL (TWA) (mg/m³)	50 μg/m³
USA NIOSH	NIOSH REL (TWA) (mg/m³)	0.05 mg/m³
USA IDLH	US IDLH (mg/m³)	100 mg/m³
Alberta	OEL TWA (mg/m³)	0.05 mg/m³
British Columbia	OEL TWA (mg/m³)	0.05 mg/m³
Manitoba	OEL TWA (mg/m³)	0.05 mg/m³
New Brunswick	OEL TWA (mg/m³)	0.05 mg/m³
Newfoundland & Labrador	OEL TWA (mg/m³)	0.05 mg/m³
Nova Scotia	OEL TWA (mg/m³)	0.05 mg/m³
Nunavut	OEL STEL (mg/m³)	0.15 mg/m³
Nunavut	OEL TWA (mg/m³)	0.05 mg/m³
Northwest Territories	OEL STEL (mg/m³)	0.15 mg/m³
Northwest Territories	OEL TWA (mg/m³)	0.05 mg/m³
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Ontario	OEL TWA (mg/m³)	0.05 mg/m³ (designated substances regulation) 0.05 mg/m³ (applies to workplaces to which the designated substances regulation does not apply)
Prince Edward Island	OEL TWA (mg/m³)	0.05 mg/m ³
Québec	VEMP (mg/m³)	0.05 mg/m ³
Saskatchewan	OEL STEL (mg/m³)	0.15 mg/m³
Saskatchewan	OEL TWA (mg/m³)	0.05 mg/m³
Yukon	OEL STEL (mg/m³)	0.45 mg/m³ (dust and fume)
Yukon	OEL TWA (mg/m³)	0.15 mg/m³ (dust and fume)

8.2. Exposure Controls

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Personal Protective Equipment: Protective goggles. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection.









Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves. **Eye and Face Protection:** Chemical goggles or safety glasses. **Skin and Body Protection:** Wear suitable protective clothing.

Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed

established Occupational Exposure Limits.

Environmental Exposure Controls: Do not allow the product to be released into the environment.

Consumer Exposure Controls: Do not eat, drink or smoke during use

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State: SolidAppearance: SilveryOdor: None

Odor Threshold: Not availablepH: Not applicableEvaporation Rate: Not available

Melting Point : 1005 - 1205°F (541- 652°C)

Freezing Point Not available **Boiling Point** Not applicable **Flash Point** Not available **Auto-ignition Temperature** Not available **Decomposition Temperature** Not available Flammability (solid, gas) Not available **Lower Flammable Limit** Not available **Upper Flammable Limit** Not available **Vapor Pressure** Not applicable Relative Vapor Density at 20°C Not available **Relative Density** Not available

Specific Gravity : 2.72 - 3.13 g/cm3 (0.098 - 0.113 lb/in3)

Solubility : Water: None
Partition Coefficient: N-Octanol/Water : Not applicable
Viscosity : Not available

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SECTION 10: STABILITY AND REACTIVITY

- **10.1. Reactivity:** Hazardous reactions will not occur under normal conditions.
- **10.2.** Chemical Stability: Stable under recommended handling and storage conditions (see section 7).
- **10.3.** Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
- **10.4.** Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Ignition sources. Incompatible materials.
- **10.5. Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers.
- **10.6.** Hazardous Decomposition Products: None known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified
Acute Toxicity (Dermal): Not classified
Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data: Not available Skin Corrosion/Irritation: Not classified Eye Damage/Irritation: Not classified

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified **Carcinogenicity:** May cause cancer.

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: May cause harm to breast-fed children. May damage fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause respiratory irritation. Inhalation of dusts and fumes can cause metal fume fever. Symptoms can include a metallic or sweet taste in the mouth, sweating, shivering, headache, throat irritation, fever, chills, thirstiness, muscle aches, nausea, vomiting, weakness, fatigue, and shortness of breath.

Symptoms/Injuries After Skin Contact: May cause skin irritation. **Symptoms/Injuries After Eye Contact:** May cause eye irritation.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: May cause cancer. May damage fertility. May damage the unborn child. May cause harm to breast-fed children.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Silicon (7440-21-3)	
LD50 Oral Rat	3160 mg/kg
Iron (7439-89-6)	
LD50 Oral Rat	98.6 g/kg
Manganese (7439-96-5)	
LD50 Oral Rat	> 2000 mg/kg
LC50 Inhalation Rat	> 5.14 mg/l/4h
Chromium (7440-47-3)	
LD50 Oral Rat	> 5000 mg/kg
LC50 Inhalation Rat	> 5.41 mg/l/4h
Chromium (7440-47-3)	
IARC Group	3
Lead (7439-92-1)	
IARC Group	2A
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity No additional information available

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Copper (7440-50-8)		
LC50 Fish 1	0.0068 - 0.0156 mg/l (Exposure time: 96 h - Species: Pimephales promelas)	
EC50 Daphnia 1	0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])	
EC50 Other Aquatic Organisms 1	0.0426 (0.0426 - 0.0535) mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata [static])	
LC50 Fish 2	< 0.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])	
EC50 Other Aquatic Organisms 2	0.031 (0.031 - 0.054) mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata [static])	
Manganese (7439-96-5)		
NOEC Chronic Fish	3.6 mg/l (Exposure time: 96h; Species: Oncorhynchus mykiss)	
Lead (7439-92-1)		
LC50 Fish 1	0.44 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static])	
EC50 Daphnia 1	EC50 Daphnia 1 600 μg/l (Exposure time: 48 h - Species: water flea)	
LC50 Fish 2	1.17 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])	

12.2. Persistence and Degradability

Copper (7440-50-8)		
	Persistence and Degradability	Not readily biodegradable.

- **12.3. Bioaccumulative Potential** Not available
- **12.4. Mobility in Soil** Not available
- 12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations.

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT Not regulated for transport
 14.2. In Accordance with IMDG Not regulated for transport
 14.3. In Accordance with IATA Not regulated for transport

14.4. In Accordance with TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

Aluminum Alloys with Lead Addition (6042, 6262, C06N)	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard
Aluminum (7429-90-5)	
Listed on the United States TSCA (Toxic Substances C	Control Act) inventory
Subject to reporting requirements of United States S	ARA Section 313
SARA Section 313 - Emission Reporting	1 % (dust or fume only)
Silicon (7440-21-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Copper (7440-50-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 um

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SARA Section 313 - Emission Reporting	1%		
Magnesium (7439-95-4)			
Listed on the United States TSCA (Toxic Substances Control Act)	Listed on the United States TSCA (Toxic Substances Control Act) inventory		
Iron (7439-89-6)			
Listed on the United States TSCA (Toxic Substances Control Act)	inventory		
Manganese (7439-96-5)			
Listed on the United States TSCA (Toxic Substances Control Act)	inventory		
Subject to reporting requirements of United States SARA Section	n 313		
SARA Section 313 - Emission Reporting	1 %		
Chromium (7440-47-3)			
Listed on the United States TSCA (Toxic Substances Control Act)	inventory		
Subject to reporting requirements of United States SARA Section	n 313		
CERCLA RQ	5000 lb no reporting of releases of this hazardous substance is		
	required if the diameter of the pieces of the solid metal released is		
	>100 μm		
SARA Section 313 - Emission Reporting	1 %		
Lead (7439-92-1)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory			
Subject to reporting requirements of United States SARA Section 313			
CERCLA RQ	10 lb no reporting of releases of this hazardous substance is		
	required if the diameter of the pieces of the solid metal released is		
	>100 μm		
SARA Section 313 - Emission Reporting	0.1 %		

15.2. US State Regulations

Lead (7439-92-1)	
U.S California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of
	California to cause cancer.
U.S California - Proposition 65 - Developmental Toxicity	WARNING: This product contains chemicals known to the State of
	California to cause birth defects.
U.S California - Proposition 65 - Reproductive Toxicity -	WARNING: This product contains chemicals known to the State of
Female	California to cause (Female) reproductive harm.
U.S California - Proposition 65 - Reproductive Toxicity -	WARNING: This product contains chemicals known to the State of
Male	California to cause (Male) reproductive harm.

Aluminum (7429-90-5)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- U.S. Pennsylvania RTK (Right to Know) List

Silicon (7440-21-3)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

Copper (7440-50-8)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- U.S. Pennsylvania RTK (Right to Know) List

Magnesium (7439-95-4)

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- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

Manganese (7439-96-5)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- U.S. Pennsylvania RTK (Right to Know) List

Chromium (7440-47-3)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- U.S. Pennsylvania RTK (Right to Know) Special Hazardous Substances
- U.S. Pennsylvania RTK (Right to Know) List

Lead (7439-92-1)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- U.S. Pennsylvania RTK (Right to Know) List

15.3. Canadian Regulations

Aluminum (7429-90-5)

Listed on the Canadian DSL (Domestic Substances List)

Silicon (7440-21-3)

Listed on the Canadian DSL (Domestic Substances List)

Copper (7440-50-8)

Listed on the Canadian DSL (Domestic Substances List)

Magnesium (7439-95-4)

Listed on the Canadian DSL (Domestic Substances List)

Iron (7439-89-6)

Listed on the Canadian DSL (Domestic Substances List)

Manganese (7439-96-5)

Listed on the Canadian DSL (Domestic Substances List)

Chromium (7440-47-3)

Listed on the Canadian DSL (Domestic Substances List)

Lead (7439-92-1)

Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest

Revision

: 08/17/2018

Other Information

: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

GHS Full Text Phrases:

Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Carc. 1B	Carcinogenicity Category 1B
Comb. Dust	Combustible Dust
Flam. Sol. 1	Flammable solids Category 1

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Lact	Reproductive toxicity (Lact.)
Repr. 1A	Reproductive toxicity Category 1A
Self-heat. 1	Self-heating substances and mixtures Category 1
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
Water-react. 2	Substances and mixtures which in contact with water emit flammable gases Category 2
H228	Flammable solid
H251	Self-heating; may catch fire
H261	In contact with water releases flammable gas
H350	May cause cancer
H360	May damage fertility or the unborn child
H362	May cause harm to breast-fed children
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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