

Response

If swallowed: Call a poison center/doctor if you feel unwell. If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Rinse mouth. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. If experiencing respiratory symptoms: Call a poison center/doctor. Take off contaminated clothing and wash before reuse.

Storage

Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

In its manufactured and shipped state, this product is considered to present a low hazard. Processing may generate hazardous fumes and dusts.

3. Composition/information on ingredients**Mixtures**

Chemical name	CAS number	%
Zinc Galvanized Wire / Wire Products	Mixture	100

Constituents

Chemical name	CAS number	%
Iron	7439-89-6	99
Manganese	7439-96-5	0.22 - 1.6
Aluminum	7429-90-5	0 - 1
Chromium	7440-47-3	0.04 - 0.95
Carbon	7440-44-0	0.04 - 0.85
Boron	7440-42-8	0.2 - 0.8
Silicon	7440-21-3	0.04 - 0.6
Nickel	7440-02-0	0.05 - 0.49
Copper	7440-50-8	0.06 - 0.45
Molybdenum	7439-98-7	0.01 - 0.23
Vanadium	7440-62-2	0.01 - 0.06

Impurities

Chemical name	CAS number	%
Silver	7440-22-4	0 - 1
Zinc	7440-66-6	0 - 1
Beryllium	7440-41-7	0 - 1
Barium	7440-39-3	0 - 1
Antimony	7440-36-0	0 - 1
Arsenic	7440-38-2	1
Mercury	7439-97-6	0 - 1
Lead	7439-92-1	0 - 1
Cadmium	7440-43-9	0 - 1
Selenium	7782-49-2	0 - 1
Tin	7440-31-5	< 0.1
Sulfur	7704-34-9	< 0.1
Niobium	7440-03-1	< 0.1
Phosphorus	7723-14-0	< 0.1
Nitrogen	7727-37-9	< 0.1
Thallium	7440-28-0	< 0.01

Composition comments All concentrations are in percent by weight.

4. First-aid measures

Inhalation If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

Skin contact Wash skin with soap and water. In case of burns with hot metal, rinse with plenty of cold water. If burns are severe, consult a physician.

Eye contact Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention promptly if symptoms persist or occur after washing.

Ingestion Not expected due to the form of the product in its manufactured and shipped state.

Most important symptoms/effects, acute and delayed High concentrations of freshly formed fumes/dusts of metal oxides can produce symptoms of metal fume fever.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media No restrictions known.

Specific hazards arising from the chemical Irritating and toxic gases or fumes may be released during a fire.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards Solid metal is not flammable; however, finely divided metallic dust or powder may form an explosive mixture with air.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Cold solid metal: No special precautions. Dust or powder: Avoid inhalation of dust. Use personal protection as recommended in Section 8 of the SDS.

Methods and materials for containment and cleaning up Collect for recycling. Dust: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Environmental precautions No specific precautions.

7. Handling and storage

Precautions for safe handling Avoid contact with sharp edges and hot surfaces. Use appropriate gloves and tools to ensure safe handling. Use work methods which minimize dust/fume production. Do not breathe fumes and dusts. Follow the recommendations in ANSI Z49.1, Safety in welding and cutting (ANSI=American National Standard Institute).

Conditions for safe storage, including any incompatibilities Store in a dry place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

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

Impurities	Type	Value
Cadmium (CAS 7440-43-9)	TWA	0.005 mg/m ³
Lead (CAS 7439-92-1)	TWA	0.05 mg/m ³
Arsenic (CAS 7440-38-2)	TWA	0.01 mg/m ³

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Constituents	Type	Value	Form
Molybdenum (CAS 7439-98-7)	PEL	15 mg/m ³	Total dust.
Copper (CAS 7440-50-8)	PEL	1 mg/m ³	Dust and mist.
		0.1 mg/m ³	Fume.
Nickel (CAS 7440-02-0)	PEL	1 mg/m ³	
Silicon (CAS 7440-21-3)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
Chromium (CAS 7440-47-3)	PEL	1 mg/m ³	
Aluminum (CAS 7429-90-5)	PEL	5 mg/m ³	Respirable dust.
		15 mg/m ³	Total dust.
Manganese (CAS 7439-96-5)	Ceiling	5 mg/m ³	Fume.
Impurities	Type	Value	
Phosphorus (CAS 7723-14-0)	PEL	0.1 mg/m ³	
Antimony (CAS 7440-36-0)	PEL	0.5 mg/m ³	
Selenium (CAS 7782-49-2)	PEL	0.2 mg/m ³	
Silver (CAS 7440-22-4)	PEL	0.01 mg/m ³	

US. OSHA Table Z-2 (29 CFR 1910.1000)

Impurities	Type	Value	Form
Beryllium (CAS 7440-41-7)	Ceiling	0.005 mg/m ³	
	TWA	0.002 mg/m ³	
Cadmium (CAS 7440-43-9)	Ceiling	0.6 mg/m ³	Dust.
		0.3 mg/m ³	Fume.
	TWA	0.2 mg/m ³	Dust.
		0.1 mg/m ³	Fume.
Mercury (CAS 7439-97-6)	Ceiling	0.1 mg/m ³	

US. OSHA Table Z-3 (29 CFR 1910.1000)

Constituents	Type	Value	Form
Carbon (CAS 7440-44-0)	TWA	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.

US. ACGIH Threshold Limit Values

Constituents	Type	Value	Form
Nickel (CAS 7440-02-0)	TWA	1.5 mg/m ³	Inhalable fraction.
Carbon (CAS 7440-44-0)	TWA	2 mg/m ³	Respirable fraction.
Chromium (CAS 7440-47-3)	TWA	0.5 mg/m ³	
Aluminum (CAS 7429-90-5)	TWA	1 mg/m ³	Respirable fraction.
Impurities	Type	Value	Form
Phosphorus (CAS 7723-14-0)	TWA	0.1 mg/m ³	
Antimony (CAS 7440-36-0)	TWA	0.5 mg/m ³	
Barium (CAS 7440-39-3)	TWA	0.5 mg/m ³	
Beryllium (CAS 7440-41-7)	TWA	0.00005 mg/m ³	Inhalable fraction.
Cadmium (CAS 7440-43-9)	TWA	0.01 mg/m ³	
Lead (CAS 7439-92-1)	TWA	0.05 mg/m ³	
Mercury (CAS 7439-97-6)	TWA	0.025 mg/m ³	
Selenium (CAS 7782-49-2)	TWA	0.2 mg/m ³	
Silver (CAS 7440-22-4)	TWA	0.1 mg/m ³	Dust and fume.
Arsenic (CAS 7440-38-2)	TWA	0.01 mg/m ³	

US. NIOSH: Pocket Guide to Chemical Hazards

Constituents	Type	Value	Form
Copper (CAS 7440-50-8)	TWA	1 mg/m ³	Dust and mist.
Nickel (CAS 7440-02-0)	TWA	0.015 mg/m ³	
Silicon (CAS 7440-21-3)	TWA	5 mg/m ³	Respirable.
		10 mg/m ³	Total
Carbon (CAS 7440-44-0)	TWA	2.5 mg/m ³	Respirable.
Chromium (CAS 7440-47-3)	TWA	0.5 mg/m ³	
Aluminum (CAS 7429-90-5)	TWA	5 mg/m ³	Welding fume or pyrophoric powder.
		5 mg/m ³	Respirable.
		10 mg/m ³	Total
Manganese (CAS 7439-96-5)	STEL	3 mg/m ³	Fume.
	TWA	1 mg/m ³	Fume.
Impurities	Type	Value	Form
Phosphorus (CAS 7723-14-0)	TWA	0.1 mg/m ³	
Antimony (CAS 7440-36-0)	TWA	0.5 mg/m ³	
Beryllium (CAS 7440-41-7)	Ceiling	0.0005 mg/m ³	
Lead (CAS 7439-92-1)	TWA	0.05 mg/m ³	
Mercury (CAS 7439-97-6)	TWA	0.05 mg/m ³	Vapor.
Selenium (CAS 7782-49-2)	TWA	0.2 mg/m ³	
Silver (CAS 7440-22-4)	TWA	0.01 mg/m ³	Dust.
Arsenic (CAS 7440-38-2)	Ceiling	0.002 mg/m ³	

Biological limit values

ACGIH Biological Exposure Indices

Impurities	Value	Determinant	Specimen	Sampling Time
Cadmium (CAS 7440-43-9)	5 µg/g	Cadmium	Creatinine in urine	*
	5 µg/l	Cadmium	Blood	*
Lead (CAS 7439-92-1)	300 µg/l	Lead	Blood	*
Mercury (CAS 7439-97-6)	20 µg/g	Total inorganic mercury	Creatinine in urine	*
Arsenic (CAS 7440-38-2)	35 µg/l	Inorganic arsenic, plus methylated metabolites, as As	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Mercury (CAS 7439-97-6) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Mercury (CAS 7439-97-6) Skin designation applies.

US - Tennessee OELs: Skin designation

Mercury (CAS 7439-97-6) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Mercury (CAS 7439-97-6) Can be absorbed through the skin.

Thallium (CAS 7440-28-0) Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

Mercury (CAS 7439-97-6) Can be absorbed through the skin.

Appropriate engineering controls

Adequate ventilation should be provided so that exposure limits are not exceeded. Use local exhaust when welding, burning, sawing, brazing, grinding or machining to prevent excessive dust or fume exposure.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear dust-resistant safety goggles where there is risk of eye contact.

Skin protection	
Hand protection	Wear suitable protective gloves to prevent cuts and abrasions.
Other	Wear normal work clothes and safety shoes.
Respiratory protection	In the case of respirable dust and/or fumes, use self-contained breathing apparatus.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Solid.
Color	Metallic.
Odor	None.
Odor threshold	Not available.
pH	Not applicable.
Melting point/freezing point	2800 °F (1537.78 °C)
Initial boiling point and boiling range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not applicable.
Flammability limit - upper (%)	Not applicable.
Explosive limit - lower (%)	Not applicable.
Explosive limit - upper (%)	Not applicable.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	8 (water=1)
Solubility(ies)	
Solubility (water)	Insoluble in water.
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not available.
Viscosity	Not applicable.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents.
Hazardous decomposition products	Welding, burning, sawing, brazing, grinding or machining operations may generate dusts and fumes of metal oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause allergy or asthma symptoms or breathing difficulties if inhaled. Prolonged inhalation may be harmful. Dust may irritate respiratory system or lungs. Inhalation of powder or fumes may cause metal fume fever.
Skin contact	May cause irritation through mechanical abrasion. Skin contact with hot metal can cause burns. Dust: May cause an allergic skin reaction.
Eye contact	Dust or powder may irritate eye tissue. Not likely, due to the form of the product.
Ingestion	Not likely, due to the form of the product. However, ingestion of dusts generated during working operations may cause nausea and vomiting.

Symptoms related to the physical, chemical and toxicological characteristics

Difficulty in breathing. High concentrations of freshly formed fumes/dusts of metal oxides can produce symptoms of metal fume fever. Typical symptoms last 12 to 48 hours and are characterized by metallic taste in the mouth, dryness, and irritation of the throat, followed by weakness, muscle pain, fever, and chills.

Information on toxicological effects

Acute toxicity

Toxicological data

Constituents	Species	Test Results
Silicon (CAS 7440-21-3)		
Acute		
<i>Oral</i>		
LD50	Rat	3160 mg/kg
Boron (CAS 7440-42-8)		
Acute		
<i>Oral</i>		
LD50	Rat	650 mg/kg
Carbon (CAS 7440-44-0)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 2000 mg/m ³ , 4 hours
Aluminum (CAS 7429-90-5)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 0.888 mg/l, 4 hours
Manganese (CAS 7439-96-5)		
Acute		
<i>Inhalation</i>		
LC50/LC90	Rat	> 1500 mg/kg
<i>Oral</i>		
LD50	Rat	9000 mg/kg
Impurities	Species	Test Results
Sulfur (CAS 7704-34-9)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 2000 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Rat	> 5.43 g/m ³ , 4 Hours
<i>Oral</i>		
LD50	Rat	> 2200 mg/kg

Impurities	Species	Test Results
Arsenic (CAS 7440-38-2)		
Acute		
<i>Oral</i>		
LD50	Mouse	145 mg/kg
	Rat	763 mg/kg
Zinc (CAS 7440-66-6)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 5410 mg/m3
Skin corrosion/irritation	Dust may irritate skin.	
Serious eye damage/eye irritation	Dust in the eyes will cause irritation.	
Respiratory or skin sensitization		
ACGIH Sensitization		
Beryllium (CAS 7440-41-7)	Respiratory sensitization	
Respiratory sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
Skin sensitization	May cause an allergic skin reaction.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Arsenic (CAS 7440-38-2)	1 Carcinogenic to humans.	
Beryllium (CAS 7440-41-7)	1 Carcinogenic to humans.	
Cadmium (CAS 7440-43-9)	1 Carcinogenic to humans.	
Chromium (CAS 7440-47-3)	3 Not classifiable as to carcinogenicity to humans.	
Lead (CAS 7439-92-1)	2B Possibly carcinogenic to humans.	
Mercury (CAS 7439-97-6)	3 Not classifiable as to carcinogenicity to humans.	
Nickel (CAS 7440-02-0)	2B Possibly carcinogenic to humans.	
Selenium (CAS 7782-49-2)	3 Not classifiable as to carcinogenicity to humans.	
NTP Report on Carcinogens		
Arsenic (CAS 7440-38-2)	Known To Be Human Carcinogen.	
Beryllium (CAS 7440-41-7)	Known To Be Human Carcinogen.	
Cadmium (CAS 7440-43-9)	Known To Be Human Carcinogen.	
Lead (CAS 7439-92-1)	Reasonably Anticipated to be a Human Carcinogen.	
Nickel (CAS 7440-02-0)	Known To Be Human Carcinogen. Reasonably Anticipated to be a Human Carcinogen.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
Arsenic (CAS 7440-38-2)	Cancer	
Cadmium (CAS 7440-43-9)	Cancer	
Reproductive toxicity	May damage fertility or the unborn child.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Causes damage to organs through prolonged or repeated exposure.	
Aspiration hazard	Not an aspiration hazard.	
Chronic effects	Exposure to manganese fume/dust can affect the central nervous system (apathy, drowsiness, weakness and other chronic symptoms such as postural tremors). Frequent inhalation of fume/dust over a long period of time increases the risk of developing lung diseases.	
Further information	No data available.	
12. Ecological information		
Ecotoxicity	Not relevant, due to the form of the product in its manufactured and shipped state.	

Constituents	Species		Test Results
Copper (CAS 7440-50-8)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.0318 mg/l, 48 hours
Fish	LC50	Chinook salmon (Oncorhynchus tshawytscha)	0.02 mg/l, 96 hours
Nickel (CAS 7440-02-0)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1 mg/l, 48 hours 1 mg/l, 48 Hours
	LC50	Calanoid copepod (Eurytemora affinis)	7.35 - 12.12 mg/l, 96 hours
Chromium (CAS 7440-47-3)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	10 - 100 mg/l, 96 Hours
Iron (CAS 7439-89-6)			
Aquatic			
Fish	LC50	Channel catfish (Ictalurus punctatus)	> 500 mg/l, 96 Hours
Impurities			
		Species	Test Results
Phosphorus (CAS 7723-14-0)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.025 - 0.037 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	0.002 - 0.006 mg/l, 96 hours 0.001 - 0.004 mg/l, 96 hours
Zinc (CAS 7440-66-6)			
Aquatic			
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	0.24 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.
Bioaccumulative potential No data available.
Mobility in soil Metals in massive form are not mobile in the environment.
Other adverse effects None known.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations Dispose in accordance with all applicable regulations.
Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

US RCRA Hazardous Waste P List: Reference

Beryllium (CAS 7440-41-7) P015

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging Not applicable.

14. Transport information

DOT
Not regulated as dangerous goods.
IATA
Not regulated as dangerous goods.
IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not relevant.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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

Mercury (CAS 7439-97-6) 1.0 % One-Time Export Notification only.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Arsenic (CAS 7440-38-2)	Cancer
Cadmium (CAS 7440-43-9)	Cancer
Lead (CAS 7439-92-1)	Reproductive toxicity
Arsenic (CAS 7440-38-2)	Liver
Cadmium (CAS 7440-43-9)	Lung
Lead (CAS 7439-92-1)	Central nervous system
Arsenic (CAS 7440-38-2)	Skin
Cadmium (CAS 7440-43-9)	Kidney
Lead (CAS 7439-92-1)	Kidney
Arsenic (CAS 7440-38-2)	Respiratory irritation
Cadmium (CAS 7440-43-9)	Acute toxicity
Lead (CAS 7439-92-1)	Blood
Arsenic (CAS 7440-38-2)	Nervous system
Lead (CAS 7439-92-1)	Acute toxicity
Arsenic (CAS 7440-38-2)	Acute toxicity

CERCLA Hazardous Substance List (40 CFR 302.4)

Antimony (CAS 7440-36-0)	LISTED
Arsenic (CAS 7440-38-2)	LISTED
Barium (CAS 7440-39-3)	LISTED
Beryllium (CAS 7440-41-7)	LISTED
Cadmium (CAS 7440-43-9)	LISTED
Chromium (CAS 7440-47-3)	LISTED
Copper (CAS 7440-50-8)	LISTED
Lead (CAS 7439-92-1)	LISTED
Manganese (CAS 7439-96-5)	LISTED
Mercury (CAS 7439-97-6)	LISTED
Nickel (CAS 7440-02-0)	LISTED
Phosphorus (CAS 7723-14-0)	LISTED
Selenium (CAS 7782-49-2)	LISTED
Silver (CAS 7440-22-4)	LISTED
Thallium (CAS 7440-28-0)	LISTED
Zinc (CAS 7440-66-6)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
 Immediate Hazard - Yes
 Delayed Hazard - Yes
 Fire Hazard - No
 Pressure Hazard - No
 Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Phosphorus	7723-14-0	1	100		

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Zinc	7440-66-6	0 - 1
Manganese	7439-96-5	0.22 - 1.6

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Aluminum	7429-90-5	0 - 1
Nickel	7440-02-0	0.05 - 0.49
Beryllium	7440-41-7	0 - 1
Barium	7440-39-3	0 - 1
Antimony	7440-36-0	0 - 1
Arsenic	7440-38-2	1
Mercury	7439-97-6	0 - 1
Lead	7439-92-1	0 - 1
Cadmium	7440-43-9	0 - 1
Selenium	7782-49-2	0 - 1
Silver	7440-22-4	0 - 1

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Antimony (CAS 7440-36-0)
 Arsenic (CAS 7440-38-2)
 Beryllium (CAS 7440-41-7)
 Cadmium (CAS 7440-43-9)
 Chromium (CAS 7440-47-3)
 Lead (CAS 7439-92-1)
 Manganese (CAS 7439-96-5)
 Mercury (CAS 7439-97-6)
 Nickel (CAS 7440-02-0)
 Phosphorus (CAS 7723-14-0)
 Selenium (CAS 7782-49-2)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations**US. Massachusetts RTK - Substance List**

Aluminum (CAS 7429-90-5)
 Antimony (CAS 7440-36-0)
 Arsenic (CAS 7440-38-2)
 Barium (CAS 7440-39-3)
 Beryllium (CAS 7440-41-7)
 Cadmium (CAS 7440-43-9)
 Chromium (CAS 7440-47-3)
 Copper (CAS 7440-50-8)
 Lead (CAS 7439-92-1)
 Manganese (CAS 7439-96-5)
 Mercury (CAS 7439-97-6)
 Molybdenum (CAS 7439-98-7)
 Nickel (CAS 7440-02-0)
 Nitrogen (CAS 7727-37-9)
 Phosphorus (CAS 7723-14-0)
 Selenium (CAS 7782-49-2)
 Silicon (CAS 7440-21-3)
 Silver (CAS 7440-22-4)
 Sulfur (CAS 7704-34-9)
 Thallium (CAS 7440-28-0)
 Tin (CAS 7440-31-5)
 Vanadium (CAS 7440-62-2)
 Zinc (CAS 7440-66-6)

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

Aluminum (CAS 7429-90-5)
 Antimony (CAS 7440-36-0)
 Arsenic (CAS 7440-38-2)
 Barium (CAS 7440-39-3)
 Beryllium (CAS 7440-41-7)
 Boron (CAS 7440-42-8)

Cadmium (CAS 7440-43-9)
Carbon (CAS 7440-44-0)
Chromium (CAS 7440-47-3)
Copper (CAS 7440-50-8)
Lead (CAS 7439-92-1)
Manganese (CAS 7439-96-5)
Mercury (CAS 7439-97-6)
Molybdenum (CAS 7439-98-7)
Nickel (CAS 7440-02-0)
Nitrogen (CAS 7727-37-9)
Phosphorus (CAS 7723-14-0)
Selenium (CAS 7782-49-2)
Silicon (CAS 7440-21-3)
Silver (CAS 7440-22-4)
Sulfur (CAS 7704-34-9)
Thallium (CAS 7440-28-0)
Tin (CAS 7440-31-5)
Vanadium (CAS 7440-62-2)
Zinc (CAS 7440-66-6)

US. Pennsylvania Worker and Community Right-to-Know Law

Aluminum (CAS 7429-90-5)
Antimony (CAS 7440-36-0)
Arsenic (CAS 7440-38-2)
Barium (CAS 7440-39-3)
Beryllium (CAS 7440-41-7)
Cadmium (CAS 7440-43-9)
Chromium (CAS 7440-47-3)
Copper (CAS 7440-50-8)
Lead (CAS 7439-92-1)
Manganese (CAS 7439-96-5)
Mercury (CAS 7439-97-6)
Molybdenum (CAS 7439-98-7)
Nickel (CAS 7440-02-0)
Nitrogen (CAS 7727-37-9)
Phosphorus (CAS 7723-14-0)
Selenium (CAS 7782-49-2)
Silicon (CAS 7440-21-3)
Silver (CAS 7440-22-4)
Sulfur (CAS 7704-34-9)
Thallium (CAS 7440-28-0)
Tin (CAS 7440-31-5)
Vanadium (CAS 7440-62-2)
Zinc (CAS 7440-66-6)

US. Rhode Island RTK

Aluminum (CAS 7429-90-5)
Antimony (CAS 7440-36-0)
Arsenic (CAS 7440-38-2)
Barium (CAS 7440-39-3)
Beryllium (CAS 7440-41-7)
Cadmium (CAS 7440-43-9)
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Silver (CAS 7440-22-4)
Thallium (CAS 7440-28-0)
Vanadium (CAS 7440-62-2)
Zinc (CAS 7440-66-6)

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 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Arsenic (CAS 7440-38-2)
Beryllium (CAS 7440-41-7)
Cadmium (CAS 7440-43-9)
Lead (CAS 7439-92-1)
Mercury (CAS 7439-97-6)
Nickel (CAS 7440-02-0)

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)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies 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, including date of preparation or last revision

Issue date 21-May-2015
Revision date -
Version # 01

List of abbreviations

TWA: Time weighted average.
STEL: Short term exposure limit.
PEL: Permissible Exposure Limit.

References

HSDB® - Hazardous Substances Data Bank
Registry of Toxic Effects of Chemical Substances (RTECS)
IARC: International Agency for Research on Cancer.
EPA: Acquire database
National Toxicology Program (NTP) Report on Carcinogens
ACGIH: American Conference of Governmental and Industrial Hygienists.

Disclaimer

Liberty Steel & Wire cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.