Material Safety Data Sheet

Material Name: Copper Alloys

* * * Section 1 - Chemical Product and Company Identification * * *

Manufacturer Information

Calumet Brass Foundry
14610 Lakeside Avenue
Dolton, IL 60419

Phone: 708-849-3040
Fax: 708-849-6343

Copper Alloy Numbers:

C10100	C36000	C63000	C85200	C87300	C90800	C92300	C93400	C94300	C95800
C11000	C36500	C65500	C85400	C87500	C90900	C92400	C93500	C94400	C95900
C17510	C46400	C83450	C85700	C87600	C91000	C92500	C93600	C94500	C96900
C18000	C48500	C83600	C86200	C87610	C91100	C92600	C93700	C95200	C97300
C18200	C51000	C83800	C86300	C89325	C91300	C92800	C93800	C95300	C97600
C26000	C54400	C84400	C86400	C90300	C91600	C92700	C93900	C95400	C97800
C28000	C61300	C84500	C86500	C90500	C91700	C92900	C94000	C95500	C99700
C36000	C61400	C84800	C86800	C90700	C92200	C93200	C94100	C95600	C99750

* * * Section 2 - Hazards Identification * * *

Emergency Overview

Under normal handling and use, exposure to the solid form of copper alloy presents few health hazards. Thermal cutting, melting, machining/grinding may produce fumes or dust containing the component elements and breathing these fumes or dust may present potentially significant health hazards as described in Section 11.

Potential Health Effects: Eyes

Dusts and fumes may cause eye irritation.

Potential Health Effects: Skin

Dusts may cause skin irritation. Individual chemicals in the dust may cause specific symptoms as described in Section 11.

Potential Health Effects: Ingestion

Not considered a likely route of exposure under normal product use conditions. Ingestion through contamination of the hands and face may cause gastrointestinal effects as described in Section 11.

Potential Health Effects: Inhalation

Inhalation of dusts or fumes may cause metal fume fever with flu-like symptoms. Chemical specific inhalation hazards are described further in Section 11.

HMIS Ratings: Health: 2 **Fire:** 0 **HMIS Reactivity** 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

* * * Section 3 - Composition / Information on Ingredients * * *

CAS #	Component
7440-50-8	Copper
7440-03-1	Niobium
7723-14-0	Phosphorus
7446-09-5	Sulfur dioxide
7440-21-3	Silicon
7439-96-5	Manganese
7429-90-5	Aluminum
7440-02-0	Nickel
7440-36-0	Antimony
1309-37-1	Iron oxide (Fe2O3)
7440-66-6	Zinc

7439-92-1	Lead
7440-31-5	Tin
7440-38-2	Arsenic

* * * Section 4 - First Aid Measures * * *

First Aid: Eyes

Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention or advice.

First Aid: Skin

For skin contact, flush with large amounts of water. If irritation persists, get medical attention.

First Aid: Ingestion

If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting.

First Aid: Inhalation

Move person to non-contaminated air. If the affected person is not breathing, apply artificial respiration.

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards

See Section 9 for Flammability Properties.

No fire or explosion hazards with alloys in solid form.

Hazardous Combustion Products

Not Determined.

Extinguishing Media

Use appropriate extinguishing media for surrounding fire. Water should not be poured directly on molten metal as there is a risk of fire or explosion.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective gear.

NFPA Ratings: Health: 2 **Fire:** 0 **Reactivity:** 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

* * * Section 6 - Accidental Release Measures * * *

Containment Procedures

No special containment needed.

Clean-Up Procedures

Pick up solid material and reclaim if possible. Wear appropriate protective equipment when handling spills of molten material.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

None

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Care should be taken that molten metal should be handled carefully during pouring. Since the temperature of molten copper alloys is over 200O°F, severe metal burns could occur.

Storage Procedures

No special storage needed.

* * * Section 8 - Exposure Controls / Personal Protection * * *

A: Component Exposure Limits

Copper (7440-50-8)

ACGIH: 0.2 mg/m3 TWA (fume)
OSHA: 0.1 mg/m3 TWA (fume); 1 mg/m3 TWA (dust and mist)
NIOSH: 1 mg/m3 TWA (dust and mist); 0.1 mg/m3 TWA (fume)

Aluminum (7429-90-5)

ACGIH: 1 mg/m3 TWA (respirable fraction)
OSHA: 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
NIOSH: 10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)

Lead (7439-92-1)

ACGIH: 0.05 mg/m3 TWA
OSHA: 30 µg/m3 Action Level (Poison, See 29 CFR 1910.1025); 50 µg/m3 TWA
50 µg/m3 TWA
NIOSH: 0.050 mg/m3 TWA

Manganese (7439-96-5)

ACGIH: 0.2 mg/m3 TWA
OSHA: 5 mg/m3 Ceiling (fume)
NIOSH: 1 mg/m3 TWA (fume)
3 mg/m3 STEL

Nickel (7440-02-0)

ACGIH: 1.5 mg/m3 TWA (inhalable fraction)
OSHA: 1 mg/m3 TWA
NIOSH: 0.015 mg/m3 TWA

Silicon (7440-21-3)

OSHA: 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
NIOSH: 10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)

Tin (7440-31-5)

ACGIH: 2 mg/m3 TWA
NIOSH: 2 mg/m3 TWA

Antimony (7440-36-0)

ACGIH: 0.5 mg/m3 TWA
OSHA: 0.5 mg/m3 TWA
NIOSH: 0.5 mg/m3 TWA

Arsenic (7440-38-2)

ACGIH: 0.01 mg/m3 TWA
NIOSH: 0.002 mg/m3 Ceiling (15 min)

Iron oxide (Fe2O3) (1309-37-1)

ACGIH: 5 mg/m3 TWA (respirable fraction)
OSHA: 10 mg/m3 TWA (fume)
NIOSH: 5 mg/m3 TWA (dust and fume, as Fe)

Sulfur dioxide (7446-09-5)

ACGIH: 0.25 ppm STEL
OSHA: 5 ppm TWA; 13 mg/m3 TWA
NIOSH: 2 ppm TWA; 5 mg/m3 TWA
5 ppm STEL; 13 mg/m3 STEL

Phosphorus (7723-14-0)

OSHA: 0.1 mg/m3 TWA

Engineering Controls

If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear chemical goggles; face shield (if handling molten material).

Personal Protective Equipment: Skin

Wear chemical and thermal resistant gloves when handling molten material.

Personal Protective Equipment: Respiratory

Melters and pourers should wear NIOSH approved respiratory protection where PEL or threshold values are or may be exceeded. The selection of the appropriate respiratory protection (dust and fume respirator, supplied air respirator, etc.) should be based upon the actual or potential airborne contaminants and their concentrations present.

Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance:	Yellow to red	**Odor:**	None
Physical State:	Solid	**pH:**	Not Applicable
Vapor Pressure:	Not Applicable	**Vapor Density:**	Not Applicable
Boiling Point:	Not Applicable	**Melting Point:**	Approx. 1500-2100°F (816-1149°C)
Solubility (H2O):	Not Applicable	**Specific Gravity:**	7.5-9.0
Evaporation Rate:	Not Applicable	**VOC:**	Not Determined
Octanol/H2O Coeff.:	Not Determined	**Flash Point:**	Not Applicable
Flash Point Method:	Not Applicable	**Upper Flammability Limit (UFL):**	Not Applicable
Lower Flammability Limit (LFL):	Not Applicable	**Burning Rate:**	Not Applicable
Auto Ignition:	Not Applicable		

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

None

Incompatibility

Not Determined.

Hazardous Decomposition

Not Determined.

Possibility of Hazardous Reactions

Will not occur.

* * * Section 11 - Toxicological Information * * *

Acute Dose Effects

A: General Product Information

The primary route of exposure to dusts or fumes generated from this product is via inhalation. The potential health hazards for individual chemicals are stated as follows:

Copper and Manganese: Thermal cutting, melting, machining/grinding may produce fumes or dust containing the component elements and breathing these fumes or dust may present potentially significant health hazards. Fumes of copper and manganese may cause metal fume fever with flu-like symptoms, and copper may cause skin and hair discoloration, irritation of the upper respiratory tract, metallic taste in the mouth and nausea. Over-exposure to manganese fumes can cause chronic manganese poisoning. The central nervous system is the chief site of injury. Chronic manganese poisoning is not a fatal disease although it is extremely disabling.

Lead - Short-Term Exposure: Primary routes of entry are inhalation of dust or fumes and ingestion through contamination of hands or face. Lead is an accumulative poison. lnhalation effects of exposure to fumes or dust of inorganic lead may not develop quickly. Symptoms may include decreased physical fitness, fatigue, sleep disturbance, headache, aching bones and muscles, constipation, abdominal pains and decreasing appetite. The effects are reversible and complete recovery is possible. lnhalation of large amounts of lead may lead to seizures, coma and death.

Lead - Long-Term Exposure: Long-term exposure to lower levels can result in a buildup of lead in the body and more severe symptoms. These may include anemia, pale skin, a blue line at the gum margin, decreased hand-grasp strength, abdominal pain, severe constipation, nausea, vomiting and paralysis of the wrist joint. Prolonged exposure may also result in kidney damage. lf the nervous system is affected, usually due to high exposures, the resulting effects include severe headaches, convulsions, coma, delirium, and death. ln non-fatal cases, recovery is slow and not always complete. Alcohol ingestion and physical exertion may bring on symptoms.

Iron and Tin: Chronic overexposure to iron oxide or tin fumes may cause an apparent benign pneumoconiosis. ln the case of iron oxide, this is called siderosis and stannosis for tin exposure. Nickel: Short-term exposure can cause lung irritation, shortness of breath, coughing and wheezing. Long-term exposure may result in impairment of sense of smell, chest pain, destruction of nasal tissue, and asthmatic lung disease. Allergic sensitivity may also develop. Nickel has been identified as a potential cancer causing agent.

Zinc: Exposure to fumes may cause "Metal Fume Fever." Onset of symptoms may be delayed 4 to 12 hours. Symptoms include irritation of the nose, mouth and throat, cough, stomach pain, headache, nausea, vomiting, metallic taste, chills, fever, pains in the muscles and joints, thirst, bronchitis or pneumonia and a bluish tint to the skin. These symptoms go away in 24 to 48 hours and leave no effect.

B: Component Analysis - LD50/LC50

Manganese (7439-96-5)
Oral LD50 Rat 9 g/kg

Nickel (7440-02-0)
Oral LD50 Rat >9000 mg/kg

Silicon (7440-21-3)
Oral LD50 Rat 3160 mg/kg

Antimony (7440-36-0)
Oral LD50 Rat 7 g/kg

Arsenic (7440-38-2)
Oral LD50 Rat 763 mg/kg

Iron oxide (Fe2O3) (1309-37-1)
Oral LD50 Rat >10000 mg/kg

Sulfur dioxide (7446-09-5)
Inhalation LC50 Rat 2500 ppm 1 h

Phosphorus (7723-14-0)
Inhalation LC50 Rat 4.3 mg/L 1 h; Oral LD50 Rat 3.03 mg/kg; Dermal LD50 Rat 100 mg/kg

Carcinogenicity

Component Carcinogenicity

Aluminum (7429-90-5)
ACGIH: A4 - Not Classifiable as a Human Carcinogen

Lead (7439-92-1)
ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
OSHA: 30 µg/m3 Action Level (Poison, See 29 CFR 1910.1025); 50 µg/m3 TWA
NTP: Reasonably Anticipated To Be A Human Carcinogen (Possible Select Carcinogen)
IARC: Monograph 87 [2006] (evaluates inorganic lead compounds as Group 2A and organic lead compounds as Group 3) (Group 2A (probably carcinogenic to humans))

Nickel (7440-02-0)
ACGIH: A5 - Not Suspected as a Human Carcinogen
NIOSH: potential occupational carcinogen
NTP: Reasonably Anticipated To Be A Human Carcinogen (Possible Select Carcinogen)
IARC: Monograph 49 [1990]; Supplement 7 [1987] (Group 2B (possibly carcinogenic to humans))

Arsenic (7440-38-2)

ACGIH: A1 - Confirmed Human Carcinogen
NIOSH: potential occupational carcinogen
NTP: Known Human Carcinogen (listed under Arsenic and Inorganic Arsenic Compounds) (Select Carcinogen)
IARC: Monograph 100C [2012]; Monograph 84 [2004] (in drinking water); Supplement 7 [1987]; Monograph 23 [1980] (Group 1 (carcinogenic to humans))

Iron oxide (Fe2O3) (1309-37-1)

ACGIH: A4 - Not Classifiable as a Human Carcinogen
IARC: Supplement 7 [1987]; Monograph 1 [1972] (Group 3 (not classifiable))

Sulfur dioxide (7446-09-5)

ACGIH: A4 - Not Classifiable as a Human Carcinogen
IARC: Monograph 54 [1992] (Group 3 (not classifiable))

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

This product is not anticipated to have any ecotoxicity effects.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Copper (7440-50-8)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	0.0068 - 0.0156 mg/L	
96 Hr LC50 Pimephales promelas	<0.3 mg/L [static]	
96 Hr LC50 Pimephales promelas	0.2 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	0.052 mg/L [flow-through]	
96 Hr LC50 Lepomis macrochirus	1.25 mg/L [static]	
96 Hr LC50 Cyprinus carpio	0.3 mg/L [semi-static]	
96 Hr LC50 Cyprinus carpio	0.8 mg/L [static]	
96 Hr LC50 Poecilia reticulata	0.112 mg/L [flow-through]	
72 Hr EC50 Pseudokirchneriella subcapitata	0.0426 - 0.0535 mg/L [static]	
96 Hr EC50 Pseudokirchneriella subcapitata	0.031 - 0.054 mg/L [static]	
48 Hr EC50 Daphnia magna	0.03 mg/L [Static]	

Lead (7439-92-1)

Test & Species		Conditions
96 Hr LC50 Cyprinus carpio	0.44 mg/L [semi-static]	
96 Hr LC50 Oncorhynchus mykiss	1.17 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	1.32 mg/L [static]	

48 Hr EC50 water flea	600 µg/L

Nickel (7440-02-0)

Test & Species	Conditions
96 Hr LC50 Brachydanio rerio	>100 mg/L
96 Hr LC50 Cyprinus carpio	1.3 mg/L [semi-static]
96 Hr LC50 Cyprinus carpio	10.4 mg/L [static]
72 Hr EC50 Pseudokirchneriella subcapitata	0.18 mg/L
96 Hr EC50 Pseudokirchneriella subcapitata	0.174 - 0.311 mg/L [static]
48 Hr EC50 Daphnia magna	>100 mg/L
48 Hr EC50 Daphnia magna	1 mg/L [Static]

Zinc (7440-66-6)

Test & Species	Conditions
96 Hr LC50 Pimephales promelas	2.16-3.05 mg/L [flow-through]
96 Hr LC50 Pimephales promelas	0.211-0.269 mg/L [semi-static]
96 Hr LC50 Pimephales promelas	2.66 mg/L [static]
96 Hr LC50 Cyprinus carpio	30 mg/L
96 Hr LC50 Cyprinus carpio	0.45 mg/L [semi-static]
96 Hr LC50 Cyprinus carpio	7.8 mg/L [static]
96 Hr LC50 Lepomis macrochirus	3.5 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	0.24 mg/L [flow-through]
96 Hr LC50 Oncorhynchus mykiss	0.59 mg/L [semi-static]
96 Hr LC50 Oncorhynchus mykiss	0.41 mg/L [static]
96 Hr EC50 Pseudokirchneriella subcapitata	0.11 - 0.271 mg/L [static]
72 Hr EC50 Pseudokirchneriella subcapitata	0.09 - 0.125 mg/L [static]
48 Hr EC50 Daphnia magna	0.139 - 0.908 mg/L [Static]

Phosphorus (7723-14-0)

Test & Species	Conditions
96 Hr LC50 Lepomis macrochirus	0.0017-0.0035 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	0.001-0.004 mg/L [static]
96 Hr LC50 Brachydanio rerio	>100 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	0.015-0.032 mg/L [static]
96 Hr LC50 Pimephales promelas	0.011-0.028 mg/L [static]

48 Hr EC50 Daphnia magna	0.03 mg/L
48 Hr EC50 Daphnia magna	0.025 - 0.037 mg/L [Static]

* * * Section 13 - Disposal Considerations * * *

US EPA Waste Number & Descriptions

Component Waste Numbers

Lead (7439-92-1)

RCRA: 5.0 mg/L regulatory level

Arsenic (7440-38-2)

RCRA: 5.0 mg/L regulatory level

Disposal Instructions

All wastes must be handled in accordance with local, state and federal regulations.

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

* * * Section 14 - Transportation Information * * *

US DOT Information

Shipping Name: Not Regulated

* * * Section 15 - Regulatory Information * * *

US Federal Regulations

A: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Copper (7440-50-8)

SARA 313: 1.0 % de minimis concentration

CERCLA: 5000 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm); 2270 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm)

Aluminum (7429-90-5)

SARA 313: 1.0 % de minimis concentration (dust or fume only)

Lead (7439-92-1)

SARA 313: 0.1 % Supplier notification limit; 0.1 % de minimis concentration (when contained in stainless steel, brass, or bronze)

CERCLA: 10 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm); 4.54 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm)

Manganese (7439-96-5)
SARA 313: 1.0 % de minimis concentration

Nickel (7440-02-0)
SARA 313: 0.1 % de minimis concentration
CERCLA: 100 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm); 45.4 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm)

Antimony (7440-36-0)
SARA 313: 1.0 % de minimis concentration
CERCLA: 5000 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm); 2270 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm)

Arsenic (7440-38-2)
SARA 313: 0.1 % de minimis concentration
CERCLA: 1 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm); 0.454 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm)

Zinc (7440-66-6)
SARA 313: 1.0 % de minimis concentration (dust or fume only)
CERCLA: 454 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm); 1000 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm)

Sulfur dioxide (7446-09-5)
SARA 302: 500 lb TPQ

Phosphorus (7723-14-0)
SARA 302: 100 lb TPQ (This material is a reactive solid. The TPQ does not default to 10000 pounds for non-powder, non-molten, non-solution form)
SARA 313: 1.0 % de minimis concentration (yellow or white)
CERCLA: 1 lb final RQ; 0.454 kg final RQ

B: Component Marine Pollutants

This material contains one or more of the following chemicals required by US DOT to be identified as marine pollutants.

Component	CAS #	
Copper	7440-50-8	DOT regulated severe marine pollutant (powder)

State Regulations

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Copper	7440-50-8	Yes	Yes	Yes	Yes	Yes	No
Aluminum	7429-90-5	Yes	Yes	Yes	Yes	Yes	No
Lead	7439-92-1	Yes	Yes	Yes	Yes	Yes	No
Manganese	7439-96-5	Yes	Yes	Yes	Yes	Yes	No
Nickel	7440-02-0	Yes	Yes	Yes	Yes	Yes	No
Silicon	7440-21-3	No	Yes	Yes	Yes	Yes	No
Tin	7440-31-5	Yes	Yes	Yes	Yes	Yes	No
Antimony	7440-36-0	Yes	Yes	Yes	Yes	Yes	No
Arsenic	7440-38-2	Yes	Yes	Yes	Yes	Yes	No
Iron oxide (Fe2O3)	1309-37-1	Yes	Yes	Yes	Yes	Yes	No
Zinc	7440-66-6	Yes	Yes	No	Yes	Yes	No
Sulfur dioxide	7446-09-5	Yes	Yes	Yes	Yes	Yes	No
Phosphorus	7723-14-0	Yes	No	No	Yes	Yes	No

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.
WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Copper	7440-50-8	1 %
Aluminum	7429-90-5	1 %
Lead	7439-92-1	0.1 %
Manganese	7439-96-5	1 %
Nickel	7440-02-0	0.1 %
Tin	7440-31-5	1 %
Antimony	7440-36-0	1 %
Arsenic	7440-38-2	0.1 %
Iron oxide (Fe2O3)	1309-37-1	1 %
Sulfur dioxide	7446-09-5	1 %
Phosphorus	7723-14-0	1 %

Additional Regulatory Information

Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Copper	7440-50-8	Yes	DSL	EINECS
Aluminum	7429-90-5	Yes	DSL	EINECS
Lead	7439-92-1	Yes	DSL	EINECS
Manganese	7439-96-5	Yes	DSL	EINECS

Nickel	7440-02-0	Yes	DSL	EINECS
Niobium	7440-03-1	Yes	DSL	EINECS
Silicon	7440-21-3	Yes	DSL	EINECS
Tin	7440-31-5	Yes	DSL	EINECS
Antimony	7440-36-0	Yes	DSL	EINECS
Arsenic	7440-38-2	Yes	DSL	EINECS
Iron oxide (Fe2O3)	1309-37-1	Yes	DSL	EINECS
Zinc	7440-66-6	Yes	DSL	EINECS
Sulfur dioxide	7446-09-5	Yes	DSL	EINECS
Phosphorus	7723-14-0	Yes	DSL	EINECS

* * * Section 16 - Other Information * * *

Other Information

The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.