

# Brass and Copper Alloys Brass, Bronze, Copper, Copper-Nickel

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## 1. Identification

### 1.1. Product identifier

<b>Product Identity</b>	Brass and Copper Alloys Brass, Bronze, Copper, Copper-Nickel
<b>Alternate Names</b>	Brass and Copper Alloys Brass, Bronze, Copper, Copper-Nickel, c10100 - c12200, c14300, c1450, c17000 - c17300, c17500, c19400, c22000 - c24000, c26000 - c36000, c37700 - c38500, c46400, c48500, c52000 - c52100, c53400, c54400, c61400 - c63000, c65100 - c65500, c70600, c71500, c75200, c84400 - c93200, c95400., MSDS # 200

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

<b>Intended use</b>	See Technical Data Sheet.
<b>Application Method</b>	See Technical Data Sheet.

### 1.3. Details of the supplier of the safety data sheet

<b>Company Name</b>	TW Metals, LLC 707 Eagleview Blvd Suite 200 Exton, PA 19341
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<b>Emergency CHEMTREC (USA)</b>	(800) 424-9300
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## 2. Hazard(s) identification

### 2.1. Classification of the substance or mixture

Acute Tox. 4;H332	Harmful if inhaled.
Skin Irrit. 3;H316	Causes mild skin irritation. (Not adopted by US OSHA)
Skin Sens. 1;H317	May cause an allergic skin reaction.
Resp. Sens. 1;H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Carc. 1A;H350	May cause cancer.
STOT RE 1;H372	Causes damage to organs through prolonged or repeated exposure. Specific Target Organs: (lungs )
Aquatic Acute 1;H400	Very toxic to aquatic life.
Aquatic Chronic 2;H411	Toxic to aquatic life with long lasting effects.

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**2.2. Label elements**

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

**Danger**

H316 Causes mild skin irritation.

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H350 May cause cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

**[Prevention]:**

P201 Obtain special instructions before use.

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

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P262 Do not get in eyes, on skin, or on clothing.

P264 Wash thoroughly after handling.

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

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face protection.

**[Response]:**

P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.

P308+313 IF exposed or concerned: Get medical advice / attention.

P314 Get Medical advice / attention if you feel unwell.

P321 Specific treatment (see information on this label).

P331 Do NOT induce vomiting.

P333+313 If skin irritation or a rash occurs: Get medical advice / attention.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P341 If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

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P342+311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor / physician.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

**[Storage]:**

P405 Store locked up.

**[Disposal]:**

P501 Dispose of contents / container in accordance with local / national regulations.

### 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Copper CAS Number: 0007440-50-8	75 - 100	Not Classified	[1][2]
Zinc powder (stabilized) CAS Number: 0007440-66-6	10 - 25	Aquatic Acute 1;H400 Aquatic Chronic 1;H410	[1]
Nickel CAS Number: 0007440-02-0	10 - 25	Carc. 2;H351 STOT RE 1;H372 Skin Sens. 1;H317 Aquatic Chronic 3;H412	[1][2]
Aluminum (Al) CAS Number: 0007429-90-5	5 - 10	Flam. Sol. 1;H228 WaterReact. 2;H261	[1][2]
Lead Compounds (as Pb) CAS Number: 0007439-92-1	1 - 5	Carc. 1A;H350 Aquatic Acute 1;H400	[1][2]
Tin CAS Number: 0007440-31-5	1 - 5	Not Classified	[1][2]
Iron CAS Number: 0007439-89-6	1 - 5	Not Classified	[1]
Manganese compounds (as Mn) CAS Number: 0007439-96-5	1 - 5	Not Classified	[1][2]
Silicon CAS Number: 0007440-21-3	1 - 5	Not Classified	[1][2]
Cobalt compounds (as Co) CAS Number: 0007440-48-4	1 - 5	Resp. Sens. 1;H334 Skin Sens. 1;H317 Aquatic Chronic 4;H413	[1][2]
Beryllium CAS Number: 0007440-41-7	1 - 5	Carc. 1B;H350i Acute Tox. 2;H330 Acute Tox. 3;H301 STOT RE 1;H372 Eye Irrit. 2;H319 STOT SE 3;H335 Skin Irrit. 2;H315 Skin Sens. 1;H317	[1][2]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

\*The full texts of the phrases are shown in Section 16.

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## 4. First aid measures

### 4.1. Description of first aid measures

<b>General</b>	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
<b>Inhalation</b>	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
<b>Eyes</b>	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
<b>Skin</b>	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
<b>Ingestion</b>	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

### 4.2. Most important symptoms and effects, both acute and delayed

<b>Overview</b>	<p>Brass and copper alloys in their solid state present no inhalation, ingestion or contact health hazard. However, inhaling dusts, fumes or mists which may be generated during certain manufacturing procedures (burning, melting, welding, sawing, brazing, grinding and machining) may be hazardous to your health. Dusts may also be irritating to the unprotected skin or eyes.</p> <p><b>ACUTE EFFECTS:</b> Excessive exposure to dusts / fumes may cause irritation of eyes, nose or throat. Inhalation of dusts / fumes may result in metal fume fever (metallic taste in mouth, dryness and irritation of throat, chills and fever).</p> <p><b>CHRONIC EFFECTS:</b> Prolonged inhalation of fumes or dusts may cause a variety of adverse health effects to the respiratory system, including (but not necessarily limited to) lesions of the mucous membrane, bronchitis, pneumonia and cancers of the nasal cavity and respiratory tract.</p> <p><b>POTENTIAL HEALTH EFFECTS/MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:</b> Any pre-existing chronic respiratory condition (asthma, chronic bronchitis, emphysema).</p> <p><b>ROUTES OF ENTRY:</b> Inhalation (dusts / fumes / mists), Contact with Skin and Eyes (dusts / mists), Ingestion (dusts).</p> <p>Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 3 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure.</p> <p>See section 2 for further details.</p>
<b>Inhalation</b>	Harmful if inhaled. May cause allergy or asthma symptoms of breathing difficulties if inhaled.
<b>Skin</b>	May cause an allergic skin reaction. Causes mild skin irritation. (Not adopted by US OSHA)

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### 5. Fire-fighting measures

#### 5.1. Extinguishing media

Use what is appropriate for surrounding fire.

#### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

Avoid breathing dust / fume / gas / mist / vapors / spray.

Do not get in eyes, on skin, or on clothing.

#### 5.3. Advice for fire-fighters

Nonflammable at low temperatures but will burn at high temperatures.

ERG Guide No. ----

### 6. Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

#### 6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

#### 6.3. Methods and material for containment and cleaning up

No special procedures needed.

### 7. Handling and storage

#### 7.1. Precautions for safe handling

Minimize activities which may generate dusts, mists or fumes. Keep areas well ventilated. Use suitable equipment to move materials.

See section 2 for further details. - [Prevention]:

#### 7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Strong Acids (such as Sulfuric, Hydrochloric, Nitric).

See section 2 for further details. - [Storage]:

#### 7.3. Specific end use(s)

No data available.

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**8. Exposure controls and personal protection**

**8.1. Control parameters**

**Exposure**

CAS No.	Ingredient	Source	Value
0007429-90-5	Aluminum (Al)	OSHA	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)
		ACGIH	TWA: 1.0 mg/m3 Revised 2008,
		NIOSH	TWA 10 mg/m3 (total) TWA 5 mg/m3 (resp)
		Supplier	No Established Limit
1309-37-1	Iron oxide	OSHA	10 mg/m3 Fume
		ACGIH	5 mg/m3 (respirable)
		NIOSH	5 mg/m3 Fume and Dust as Fe
		Supplier	No Established Limit
0007439-92-1	Lead Compounds (as Pb)	OSHA	[1910.1025] TWA 0.050 mg/m3
		ACGIH	TWA: 0.05 mg/m3, A3
		NIOSH	TWA (8-hour) 0.050 mg/m3
		Supplier	No Established Limit
0007439-96-5	Manganese compounds (as Mn)	OSHA	C 5 mg/m3 *See specific listings for specific compounds.
		ACGIH	TWA: 0.02 mg/m3 (respirable) 0.1 mg/m3 (inhalable)
		NIOSH	TWA 1 mg/m3 ST 3 mg/m3 *See specific listings for specific compounds.
		Supplier	No Established Limit
0007440-02-0	Nickel	OSHA	TWA 1 mg/m3 [*Note: The PEL does not apply to Nickel carbonyl.]
		ACGIH	Insoluble TWA: 0.2 mg/m3 A1, (Inhalable), Elemental Ni TWA 1.5 mg/m3 (Inhalable), A5
		NIOSH	Ca TWA 0.015 mg/m3 [*Note: The REL does not apply to Nickel carbonyl.]
		Supplier	No Established Limit
0007440-21-3	Silicon	OSHA	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)
		ACGIH	No Established Limit
		NIOSH	TWA 10 mg/m3 (total) TWA 5 mg/m3 (resp)
		Supplier	No Established Limit
0007440-31-5	Tin	OSHA	TWA 2 mg/m3 [*Note: PEL also applies to other inorganic tin compounds (as Sn) except tin oxides.]
		ACGIH	TWA: 2 mg/m3 (inhalable) Metal and tin oxide as Sn.
		NIOSH	TWA 2 mg/m3 [*Note: The REL also applies to other inorganic tin compounds (as Sn) except tin oxides.]
		Supplier	No Established Limit
0007440-41-7	Beryllium	OSHA	TWA 0.002 mg/m3 C 0.005 mg/m3 (30 minutes), with a maximum peak of 0.025 mg/m3
		ACGIH	TWA: 0.00005 mg/m3 (inhalable), A1
		NIOSH	Ca C 0.0005 mg/m3
		Supplier	No Established Limit
0007440-48-4	Cobalt compounds (as Co)	OSHA	TWA 0.1 mg/m3

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		ACGIH	TWA: 0.02 mg/m3 (inhalable), A3
		NIOSH	TWA 0.05 mg/m3
		Supplier	No Established Limit
0007440-50-8	Copper	OSHA	TWA 1 mg/m3 [*Note: The PEL also applies to other copper compounds (as Cu) except copper fume.] TWA 0.1 mg/m3 as fume.
		ACGIH	TWA: 0.2 mg/m3 (fume) 1 mg/m3 (dusts and mists)
		NIOSH	TWA 1 mg/m3 [*Note: The REL also applies to other copper compounds (as Cu) except Copper fume.] TWA 0.1 mg/m3 as fume.
		Supplier	No Established Limit
1314-13-2	Zinc oxide	OSHA	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)
		ACGIH	TWA 2 mg/m3 (resp), STEL 10 mg/m3 (resp)
		NIOSH	TWA 5 mg/m3, Ceiling 10 mg/m3
		Supplier	No Established Limit

### Carcinogen Data

CAS No.	Ingredient	Source	Value
0007429-90-5	Aluminum (Al)	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		ACGIH	A4 – Not Classifiable as a Human Carcinogen.
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
1309-37-1	Iron oxide	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		ACGIH	A4 – Not Classifiable as a Human Carcinogen.
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
0007439-92-1	Lead Compounds (as Pb)	OSHA	Select Carcinogen: Yes
		NTP	Known: No; Suspected: Yes
		ACGIH	A3 – Confirmed Animal Carcinogen with Unknown Relevance to Humans
		IARC	Group 1: No; Group 2a: Yes; Group 2b: Yes; Group 3: No; Group 4: No;
0007439-96-5	Manganese compounds (as Mn)	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		ACGIH	A4 – Not Classifiable as a Human Carcinogen.
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007440-02-0	Nickel, insoluble compounds as Ni	OSHA	Select Carcinogen: Yes
		NTP	Known: Yes; Suspected: Yes
		ACGIH	A1 – Confirmed Human Carcinogen.
		IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No;
0007440-21-3	Silicon	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007440-31-5	Tin	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007440-41-7	Beryllium	OSHA	Select Carcinogen: Yes
		NTP	Known: Yes; Suspected: Yes

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		ACGIH	A1 – Confirmed Human Carcinogen.
		IARC	Group 1: Yes; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007440-48-4	Cobalt compounds (as Co)	OSHA	Select Carcinogen: Yes
		NTP	Known: No; Suspected: No
		ACGIH	A3 – Confirmed Animal Carcinogen with Unknown Relevance to Humans
		IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No;
0007440-50-8	Copper	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007440-66-6	Zinc powder (stabilized)	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

**8.2. Exposure controls**

- Respiratory**           Wear NIOSH approved dust / mist / fume respirator when welding or burning this metal.
- Eyes**                    Face shields (welding or burning), Safety glasses (cutting or grinding).
- Skin**                     Use appropriate protective clothing such as welding aprons and gloves when welding or burning.
- Engineering Controls**   Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
- Other Work Practices**   Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:



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**9. Physical and chemical properties**

<b>Appearance</b>	Metal Solid
<b>Odor</b>	Odorless
<b>Odor threshold</b>	Not determined
<b>pH</b>	Not Measured
<b>Melting point / freezing point</b>	Not Measured
<b>Initial boiling point and boiling range</b>	NA
<b>Flash Point</b>	Nonflammable
<b>Evaporation rate (Ether = 1)</b>	Not Measured
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Upper/lower flammability or explosive limits</b>	<b>Lower Explosive Limit:</b> Not Measured <b>Upper Explosive Limit:</b> Not Measured
<b>Vapor pressure (Pa)</b>	NA
<b>Vapor Density</b>	NA
<b>Specific Gravity</b>	7.78 - 8.94
<b>Solubility in Water</b>	Insoluble
<b>Partition coefficient n-octanol/water (Log Kow)</b>	Not Measured
<b>Auto-ignition temperature</b>	NA
<b>Decomposition temperature</b>	Not Measured
<b>Viscosity (cSt)</b>	Not Measured

**9.2. Other information**

No other relevant information.

**10. Stability and reactivity**

**10.1. Reactivity**

Hazardous Polymerization will not occur.

**10.2. Chemical stability**

Stable under normal circumstances.

**10.3. Possibility of hazardous reactions**

No data available.

**10.4. Conditions to avoid**

No data available.

**10.5. Incompatible materials**

Strong Acids (such as Sulfuric, Hydrochloric, Nitric).

**10.6. Hazardous decomposition products**

No hazardous decomposition data available.

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**11. Toxicological information**
**Acute toxicity**

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Copper - (7440-50-8)	2,500.00, Rat - Category: 5	>2,000.00, Rat - Category: 5	No data available	5.11, Rat - Category: NA	No data available
Zinc powder (stabilized) - (7440-66-6)	No data available	No data available	No data available	No data available	No data available
Nickel - (7440-02-0)	No data available	No data available	No data available	No data available	No data available
Aluminum (Al) - (7429-90-5)	No data available	No data available	No data available	No data available	No data available
Lead Compounds (as Pb) - (7439-92-1)	No data available	No data available	No data available	No data available	No data available
Tin - (7440-31-5)	No data available	No data available	No data available	No data available	No data available
Iron - (7439-89-6)	30,000.00, Rat - Category: NA	No data available	No data available	No data available	No data available
Manganese compounds (as Mn) - (7439-96-5)	9,000.00, Rat - Category: NA	500.00, Rabbit - Category: 3	19.00, Rat - Category: 4	No data available	No data available
Silicon - (7440-21-3)	No data available	No data available	No data available	No data available	No data available
Cobalt compounds (as Co) - (7440-48-4)	6,171.00, Rat - Category: NA	No data available	No data available	No data available	No data available
Beryllium - (7440-41-7)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	4	Harmful if inhaled.
Skin corrosion/irritation	3	Causes mild skin irritation. (Not adopted by US OSHA)
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	1	May cause allergy or asthma symptoms of breathing difficulties if inhaled.
Skin sensitization	1	May cause an allergic skin reaction.

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Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	1A	May cause cancer.
Reproductive toxicity	---	Developmental, female and male.
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	1	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	---	Not Applicable

## 12. Ecological information

**12.1. Toxicity**

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

No additional information provided for this product. See Section 3 for chemical specific data.

**Aquatic Ecotoxicity**

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Copper - (7440-50-8)	0.0103, Pimephales promelas	0.0025, Daphnia magna	0.018 (72 hr), Pseudokirchneriella subcapitata
Zinc powder (stabilized) - (7440-66-6)	0.182, Oncorhynchus tshawytscha	0.068, Daphnia magna	0.106 (72 hr), Pseudokirchneriella subcapitata
Nickel - (7440-02-0)	Not Available	Not Available	Not Available
Aluminum (Al) - (7429-90-5)	Not Available	Not Available	Not Available
Lead Compounds (as Pb) - (7439-92-1)	0.44, Cyprinus carpio	4.40, Daphnia magna	0.25 (72 hr), Scenedesmus subspicatus
Tin - (7440-31-5)	Not Available	Not Available	Not Available
Iron - (7439-89-6)	Not Available	Not Available	Not Available
Manganese compounds (as Mn) - (7439-96-5)	40.00, Daphnia magna	Not Available	Not Available
Silicon - (7440-21-3)	Not Available	Not Available	Not Available
Cobalt compounds (as Co) - (7440-48-4)	100.00, Danio rerio	Not Available	0.05 (72 hr), Pseudokirchneriella subcapitata
Beryllium - (7440-41-7)	Not Available	Not Available	Not Available

**12.2. Persistence and degradability**

There is no data available on the preparation itself.

**12.3. Bioaccumulative potential**

Not Measured

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

This product contains no PBT/vPvB chemicals.

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**12.6. Other adverse effects**

No data available.

**13. Disposal considerations**

**13.1. Waste treatment methods**

Observe all federal, state and local regulations when disposing of this substance.

**14. Transport information**

	<b>DOT (Domestic Surface Transportation)</b>	<b>IMO / IMDG (Ocean Transportation)</b>	<b>ICAO/IATA</b>
<b>14.1. UN number</b>	Not Applicable	Not Regulated	Not Regulated
<b>14.2. UN proper shipping name</b>	Not Regulated	Not Regulated	Not Regulated
<b>14.3. Transport hazard class(es)</b>	<b>DOT Hazard Class:</b> Not Applicable	<b>IMDG:</b> Not Applicable <b>Sub Class:</b> Not Applicable	<b>Air Class:</b> Not Applicable
<b>14.4. Packing group</b>	Not Applicable	Not Applicable	Not Applicable
<b>14.5. Environmental hazards</b>			
<b>IMDG</b>	Marine Pollutant: Yes; ( Zinc powder (stabilized) )		
<b>14.6. Special precautions for user</b>	No further information		

**15. Regulatory information**

<b>Regulatory Overview</b>	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
<b>Toxic Substance Control Act ( TSCA)</b>	All components of this material are either listed or exempt from listing on the TSCA Inventory.
<b>WHMIS Classification</b>	D2A
<b>US EPA Tier II Hazards</b>	<p style="text-align: right;"><b>Fire:</b> No</p> <p style="text-align: right;"><b>Sudden Release of Pressure:</b> No</p> <p style="text-align: right;"><b>Reactive:</b> No</p> <p style="text-align: right;"><b>Immediate (Acute):</b> Yes</p> <p style="text-align: right;"><b>Delayed (Chronic):</b> Yes</p>
<b>EPCRA 311/312 Chemicals and RQs (lbs):</b>	
	Beryllium ( 10.00)
	Copper ( 5,000.00)
	Lead Compounds (as Pb) ( 10.00)

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Nickel (100.00)

Zinc powder (stabilized) (1,000.00)

**EPCRA 302 Extremely Hazardous:**

Phosphorus

**EPCRA 313 Toxic Chemicals:**

Aluminum (Al)

Beryllium

Cobalt compounds (as Co)

Copper


Lead Compounds (as Pb)

Manganese compounds (as Mn)

Nickel

Zinc powder (stabilized)

**Proposition 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. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**New Jersey RTK Substances (>1%):**

Aluminum (Al)

Beryllium

Cobalt compounds (as Co)

Copper

Lead Compounds (as Pb)

Manganese compounds (as Mn)

Nickel

Silicon

Tin

Zinc powder (stabilized)

**Pennsylvania RTK Substances (>1%):**

Aluminum (Al)

Beryllium

Cobalt compounds (as Co)

Copper

Lead Compounds (as Pb)

Manganese compounds (as Mn)

Nickel

**Brass and Copper Alloys Brass, Bronze, Copper, Copper-Nickel**

SDS Revision Date: 02/08/2022

Silicon

Tin

Zinc powder (stabilized)

**16. Other information**

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H228 Flammable solid.

H261 In contact with water releases flammable gases.

H301 Toxic if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H330 Fatal if inhaled.

H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H350 May cause cancer.

H350i May cause cancer if inhaled.

H351 Suspected of causing cancer.

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.

H413 May cause long lasting harmful effects to aquatic life.

The information contained herein is furnished without warranty of any kind. The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide. Users should make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.

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