SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product name: Bronze Wire

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture: Manufacturing

1.3. Details of the supplier of the safety data sheet
Weiler Corporation
1 Weiler Drive
Cresco, PA 18326

1.4. Emergency telephone number
Emergency number: 570-595-7495

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
This product as manufactured is defined as an article per 29 CFR 1910.1200. No exposure hazards are anticipated during normal product handling conditions. In most cases, the material(s) removed from the workpiece may present a greater hazard than material released by the product. Based upon the materials that are contained within the working portion of this product it is possible that some dust particles from this product may be generated. The following safety data is presented for potential exposure hazards as associated with the dust particles that are related to this product.

Classification (GHS-US)
Not classified

2.2. Label elements
GHS-US labeling
This product as manufactured is defined as an article, therefore no labeling is required for the product as manufactured.

2.3. Other hazards
No additional information available

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper (CAS No) 7440-50-9</td>
<td>94 - 95</td>
<td></td>
<td>Not classified</td>
</tr>
<tr>
<td>Tin (CAS No) 7440-31-5</td>
<td>&lt;= 5.8</td>
<td></td>
<td>Not classified</td>
</tr>
<tr>
<td>Lead (CAS No) 7439-92-1</td>
<td>&lt;= 0.5</td>
<td></td>
<td>Carc. 1B, H350</td>
</tr>
<tr>
<td>Zinc (CAS No) 7440-66-6</td>
<td>&lt;= 0.3</td>
<td></td>
<td>Not classified</td>
</tr>
<tr>
<td>Iron (CAS No) 7439-89-6</td>
<td>&lt;= 0.1</td>
<td></td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td>Phosphorus elemental (CAS No) 7723-14-0</td>
<td>&lt;= 0.03</td>
<td></td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation: Remove victim from source of exposure to fresh air. If breathing is difficult administer oxygen. Seek medical attention.

First-aid measures after skin contact: Wash with soap and water. Seek medical advice if skin irritation develops or persists.

First-aid measures after eye contact: Flush with plenty of water for at least 15 minutes. Seek medical advice if irritation develops or persists.

First-aid measures after ingestion: Seek medical attention.
4.2. Most important symptoms and effects, both acute and delayed

**Symptoms/injuries after inhalation:**
May cause respiratory irritation including flu-like symptoms (metal fume fever); may include fever, chills, nausea, vomiting, appears 4-12 hours after exposure.

**Symptoms/injuries after skin contact:**
May cause irritation and dermatitis.

**Symptoms/injuries after eye contact:**
May cause irritation.

**Symptoms/injuries after ingestion:**
None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

**Suitable extinguishing media:**
Use extinguishing media appropriate for surrounding fire.

**Unsuitable extinguishing media:**
None.

5.2. Special hazards arising from the substance or mixture

**Fire hazard:**
None known.

**Explosion hazard:**
None known.

5.3. Advice for firefighters

**Protection during firefighting:**
Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
No additional information available

6.1.2. For emergency responders
No additional information available

6.2. Environmental precautions
None.

6.3. Methods and material for containment and cleaning up

**For containment:**
No special measures required.

**Methods for cleaning up:**
No special measures required.

6.4. Reference to other sections
No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

**Precautions for safe handling:**
No special handling required.

7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:**
No special storage conditions required.

7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

**Copper (7440-50-8)**

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>ACGIH TWA (mg/m³)</th>
<th>OSHA</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.2 mg/m³ (fume)</td>
<td></td>
<td>0.1 mg/m³ (fume)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 mg/m³ (dust and mist)</td>
</tr>
</tbody>
</table>

**Zinc (7440-66-6)**

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
8.2. Exposure controls

Appropriate engineering controls:
Utilize adequate ventilation to minimize the exposure to airborne particulates and maintain the concentration of contaminants below the occupational exposure limits.

Respiratory Protection:
When exposure limits are exceeded or when the dust concentrations are excessive, approved respirators for those conditions should be used. When selecting the respiratory protection equipment, consideration of the exposure to the coating or the base materials being worked on should be included. Local regulations and standards should be followed where appropriate. The type of respiratory equipment used should be selected according to the contaminate type, form and concentration being produced. Select and use respirators in accordance with applicable regulations and good industrial hygiene practice.

Hand protection:
The use of cloth or leather gloves is recommended.

Eye Protection:
Safety googles or face shield over safety glasses with side shields.

Hearing Protection:
Hearing protection may be required.

Skin and body protection:
The use of protective clothing should be used as needed to prevent the contamination of personal clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Color</td>
<td>Brown</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Bronze Wire
Safety Data Sheet

Specific gravity: 8.53
Relative vapor density at 20 °C: No data available
Solubility: No data available
Log Pow: No data available
Log Kow: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
No additional information available

10.2. Chemical stability
The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions
Will not occur.

10.4. Conditions to avoid
None.

10.5. Incompatible materials
None.

10.6. Hazardous decomposition products
Not determined.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified

Iron (7439-89-6)
LD50 oral rat: 984 mg/kg
ATE US (oral): 984.000 mg/kg

Phosphorus elemental (7723-14-0)
LD50 oral rat: 3.03 mg/kg
LD50 dermal rat: 100 mg/kg
LC50 inhalation rat (mg/l): 4.3 mg/l (Exposure time: 1 h)

Tin (7440-31-5)
LD50 oral rat: 700 mg/kg

Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Not classified
Respiratory or skin sensitization: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified

Lead (7439-92-1)
IARC group: 2A - Probably carcinogenic to humans
National Toxicology Program (NTP) Status: 3 - Reasonably anticipated to be Human Carcinogen
In OSHA Hazard Communication Carcinogen list: Yes
SECTION 12: Ecological information

12.1. Toxicity

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])
- LC50 fish 2: < 0.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

Zinc (7440-66-6)
- LC50 fish 1: 2.16 - 3.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
- EC50 Daphnia 1: 0.139 - 0.908 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
- LC50 fish 2: 0.211 - 0.269 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static])

Lead (7439-92-1)
- LC50 fish 1: 0.44 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static])
- 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])

Phosphorus elemental (7723-14-0)
- LC50 fish 1: 0.0017 - 0.0035 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
- EC50 Daphnia 1: 0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna)
- LC50 fish 2: 0.001 - 0.004 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
- EC50 Daphnia 2: 0.025 - 0.037 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential

Phosphorus elemental (7723-14-0)
- BCF fish 1: < 200

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects

Effect on ozone layer: No additional information available
Effect on the global warming: No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations: Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Not a dangerous good as defined in transport regulations
## SECTION 15: Regulatory information

### 15.1. US Federal regulations

<table>
<thead>
<tr>
<th>Substance</th>
<th>Listed on the United States TSCA (Toxic Substances Control Act) inventory</th>
<th>Listed on SARA Section 313 (Specific toxic chemical listings)</th>
<th>SARA Section 313 - Emission Reporting</th>
<th>15.2. US State regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Copper (7440-50-8)</strong></td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
<td>Listed on SARA Section 313 (Specific toxic chemical listings)</td>
<td>1.0 %</td>
<td><strong>U.S. - California - Right To Know List</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>U.S. - Massachusetts - Right To Know List</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>U.S. - Minnesota - Hazardous Substance List</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
<tr>
<td><strong>Zinc (7440-66-6)</strong></td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
<td>Listed on SARA Section 313 (Specific toxic chemical listings)</td>
<td>1.0 % (dust or fume only)</td>
<td>U.S. - Massachusetts - Right To Know List</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>U.S. - Minnesota - Hazardous Substance List</td>
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<td></td>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
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<td></td>
<td></td>
<td></td>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
<tr>
<td><strong>Lead (7439-92-1)</strong></td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
<td>Listed on SARA Section 313 (Specific toxic chemical listings)</td>
<td>0.1 %</td>
<td>U.S. - Massachusetts - Right To Know List</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>U.S. - Minnesota - Hazardous Substance List</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
<tr>
<td><strong>Iron (7439-89-6)</strong></td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
<td>Listed on SARA Section 313 (Specific toxic chemical listings)</td>
<td></td>
<td>U.S. - Massachusetts - Right To Know List</td>
</tr>
<tr>
<td><strong>Phosphorus elemental (7723-14-0)</strong></td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
<td>Listed on SARA Section 313 (Specific toxic chemical listings)</td>
<td></td>
<td>U.S. - Massachusetts - Right To Know List</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Listed on SARA Section 313 (Specific toxic chemical listings)</td>
<td></td>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
<tr>
<td><strong>Tin (7440-31-5)</strong></td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
<td>Listed on SARA Section 313 (Specific toxic chemical listings)</td>
<td>1.0 % (yellow or white)</td>
<td>U.S. - Massachusetts - Right To Know List</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
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<td></td>
<td></td>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
</tbody>
</table>

### 15.2. US State regulations

<table>
<thead>
<tr>
<th>Substance</th>
<th>U.S. - California - Proposition 65 - Carcinogens List</th>
<th>U.S. - California - Proposition 65 - Developmental Toxicity</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</th>
<th>No significance risk level (NSRL)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Copper (7440-50-8)</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td><strong>15 µg/day</strong></td>
</tr>
<tr>
<td></td>
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<td></td>
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<tr>
<td><strong>Zinc (7440-66-6)</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>Lead (7439-92-1)</strong></td>
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<td></td>
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<td><strong>Iron (7439-89-6)</strong></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tin (7440-31-5)</strong></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

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**Notes:**
- SARA Section 313 - Emission Reporting
- TPQ (Threshold Planning Quantity) for Phosphorus elemental: 100 pounds (This material is a reactive solid. The TPQ does not default to 10000 pounds for non-powder, non-molten, non-solution form)
Tin (7440-31-5)

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

SECTION 16: Other information

Full text of H-phrases:

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Oral)</th>
<th>Acute toxicity (oral) Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carc. 1B</td>
<td>Carcinogenicity Category 1B</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H350</td>
<td>May cause cancer</td>
</tr>
</tbody>
</table>

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.