

## Safety Data Sheet

### Section 1: Identification

**Product Identifier:**

312-16, 312-17 Stainless Steel Filler Metal

**Product Use:**

Welding electrode / filler metal for industrial and professional use.

**Manufacturer:**

Inweld Corporation  
3962 Portland St  
Coplay, PA 18037  
UNITED STATES

**Telephone Number:**

(800) 346-5368

**Emergency Telephone Number:**

CHEMTREC: (800) 424-9300

### Section 2: Hazard(s) Identification

**Classification of the Substance or Mixture (GHS-US)**

**Physical Hazards**

Not classified as hazardous in solid form.

**Health Hazards**

- Carcinogenicity — Category 1A
- Specific Target Organ Toxicity (Repeated Exposure) — Category 1
- Skin Sensitization — Category 1
- Respiratory Sensitization — Category 1
- Acute Toxicity (Inhalation) — Category 4

## Hazard Statement(s)

- May cause cancer by inhalation of welding fumes.
- Causes damage to respiratory system through prolonged or repeated exposure.
- May cause allergic skin reaction.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Harmful if inhaled.
- Welding fumes and gases can be hazardous to health.

## Signal Word

**DANGER**

## GHS Hazard Pictograms



## Precautionary Statements

### Prevention

- Do not breathe welding fumes or gases.
- Use only with adequate ventilation and local exhaust.
- Wear appropriate respiratory protection when ventilation is inadequate.
- Wear protective gloves, clothing, eye protection, and face protection.
- Avoid contact with skin and eyes.

### Response

- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- If experiencing respiratory symptoms: Call a physician.
- IF ON SKIN: Wash with plenty of soap and water.
- If skin irritation or rash occurs: Get medical attention.

### Storage

- Store in a dry, well-ventilated area.

#### Disposal

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

### Section 3: Composition/Information on Ingredients

#### Product Classification: 312-16

| Component | CAS Number | Approx. % |
|-----------|------------|-----------|
|-----------|------------|-----------|

|            |           |             |
|------------|-----------|-------------|
| Iron       | 7439-89-6 | Balance     |
| Chromium   | 7440-47-3 | 28.0 – 32.0 |
| Nickel     | 7440-02-0 | 8.0 – 10.5  |
| Manganese  | 7439-96-5 | 0.5 – 2.5   |
| Silicon    | 7440-21-3 | ≤ 0.90      |
| Carbon     | 7440-44-0 | ≤ 0.15      |
| Molybdenum | 7439-98-7 | ≤ 0.75      |
| Copper     | 7440-50-8 | ≤ 0.75      |
| Phosphorus | 7723-14-0 | ≤ 0.04      |
| Sulfur     | 7704-34-9 | ≤ 0.03      |

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**Component    CAS Number    Approx. %**

Manganese    7439-96-5    0.5 – 2.5

Silicon        7440-21-3    ≤ 1.00

Carbon        7440-44-0    ≤ 0.15

Molybdenum    7439-98-7    ≤ 0.75

Copper        7440-50-8    ≤ 0.75

Phosphorus    7723-14-0    ≤ 0.04

Sulfur         7704-34-9    ≤ 0.03

**Note:** Exposure to fumes generated during welding may vary depending on welding process and base metals used.

## **Section 4: First-Aid Measures**

### **Inhalation**

Remove exposed individual to fresh air. Seek medical attention if symptoms persist.

### **Skin Contact**

Wash with soap and water. Obtain medical attention if irritation develops.

### **Eye Contact**

Flush eyes with water for at least 15 minutes. Seek medical attention if irritation persists.

### **Ingestion**

Not an expected route of exposure. Seek medical attention if swallowed.

### **Most Important Symptoms**

Respiratory irritation, metal fume fever, dizziness, coughing, skin sensitization.

## **Section 5: Fire-Fighting Measures**

### **Suitable Extinguishing Media**

Use extinguishing media appropriate for surrounding fire.

### **Specific Hazards**

Welding fumes may contain hazardous metal oxides.

### **Protective Equipment**

Firefighters should wear self-contained breathing apparatus (SCBA).

## **Section 6: Accidental Release Measures**

Product is supplied as solid metal electrode/wire.

Collect material to prevent slipping hazards. Avoid generating dust.

## **Section 7: Handling and Storage**

- Store in a dry area.
- Avoid inhalation of welding fumes.
- Use proper ventilation.
- Keep away from moisture and incompatible materials.

## **Section 8: Exposure Controls/Personal Protection**

### **Exposure Controls**

Use local exhaust ventilation or mechanical ventilation.

### **Personal Protective Equipment (PPE)**

#### **Respiratory Protection**

NIOSH-approved respirator when ventilation is insufficient.

#### **Eye Protection**

Safety glasses with side shields and welding helmet with proper filter lens.

#### **Skin Protection**

Protective welding gloves and flame-resistant clothing.

### Occupational Exposure Limits

| Substance        | OSHA PEL                    |
|------------------|-----------------------------|
| Iron Oxide Fume  | 10 mg/m <sup>3</sup>        |
| Chromium (metal) | 1 mg/m <sup>3</sup>         |
| Nickel (metal)   | 1 mg/m <sup>3</sup>         |
| Manganese Fume   | 5 mg/m <sup>3</sup> Ceiling |

## Section 9: Physical and Chemical Properties

| Property       | Value                      |
|----------------|----------------------------|
| Appearance     | Solid metal electrode/wire |
| Odor           | Odorless                   |
| Physical State | Solid                      |
| Melting Point  | Not determined             |
| Boiling Point  | Not applicable             |
| Flash Point    | Not applicable             |
| Solubility     | Insoluble in water         |

## Section 10: Stability and Reactivity

### Reactivity

Not reactive under normal conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Hazardous Decomposition Products

Welding fumes may include chromium oxides, nickel oxides, manganese compounds, and ozone.

## Section 11: Toxicological Information

### Likely Routes of Exposure

Inhalation of welding fumes is the primary route.

### Acute Effects

- Respiratory irritation
- Dizziness
- Metal fume fever

### Chronic Effects

- Lung damage
- Sensitization
- Increased cancer risk from chromium and nickel compounds

### Carcinogenicity

Chromium and nickel compounds are classified as carcinogenic by IARC and NTP.

## Section 12: Ecological Information

No specific ecological data available for this product.

Avoid release to the environment.

## Section 13: Disposal Considerations

Dispose of waste material in accordance with applicable federal, state, and local regulations.

## Section 14: Transport Information

DOT (US)

Not regulated as dangerous goods.

**IMDG / IATA**

Not regulated.

## **Section 15: Regulatory Information**

This SDS complies with:

- OSHA Hazard Communication Standard 29 CFR 1910.1200
- GHS Revision 7 principles

### **SARA 313 Components**

- Chromium
- Nickel
- Manganese

### **California Proposition 65**

WARNING: Welding fumes may contain chemicals known to the State of California to cause cancer and reproductive harm.

## **Section 16: Other Information**

### **Prepared For:**

Inweld Corporation

### **Revision Date:**

May 7, 2026

### **Disclaimer:**

The information contained herein is believed to be accurate and represents the best information currently available to Inweld Corporation. Users should make their own investigations to determine suitability for their particular purposes and compliance with applicable laws and regulations.