Inweld
Welding Alloys and Supplies

Safety Data Sheet

Section 1: Identification

Product Identifier: Cast Iron Plus
Recommended Use: Welding filler metal for cast iron
Restrictions on Use: Use only as directed
Manufacturer: Inweld Corporation
Address: 3962 Portland St, Coplay, PA 18037, UNITED STATES
Phone Number: (800) 346-5368
Emergency Phone Number: CHEMTREC (24 hours): (800) 424-9300
SDS Date of Issue: [Insert Date]
Revision Number: 1.0

Section 2: Hazard(s) Identification

Classification:

Hazard Class	Category
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 2
Specific Target Organ Toxicity – Single Exposure (Respiratory)	Category 3
Acute Toxicity – Inhalation	Category 4
Skin Irritation	Category 2
Eye Irritation	Category 2B
Hazardous to the aquatic environment – Chronic	Category 3

Signal Word: DANGER

Hazard Statements:

- H302: Harmful if swallowed

- H315: Causes skin irritation
- H320: Causes eye irritation
- H332: Harmful if inhaled
- H335: May cause respiratory irritation
- H351: Suspected of causing cancer
- H361: Suspected of damaging fertility or the unborn child
- H412: Harmful to aquatic life with long-lasting effects

Precautionary Statements:

- 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
- P264: Wash hands thoroughly after handling
- P271: Use only outdoors or in a well-ventilated area
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P308+P313: If exposed or concerned: Get medical advice/attention
- P405: Store locked up
- P501: Dispose of contents/container in accordance with local/regional/national/international regulations

GHS Pictograms:

Section 3: Composition/Information on Ingredients

Chemical Name	CAS Number	% by Weight	Classification
Iron	7439-89-6	60–95%	Not classified under GHS

Chemical Name	CAS Number	% by Weight	Classification
Nickel	7440-02-0	0–20%	Carc. 1A; STOT RE 1; Skin Sens. 1
Manganese	7439-96-5	0–5%	STOT RE 2
Silicon	7440-21-3	0–5%	STOT SE 3 (inhalation)
Copper	7440-50-8	0–5%	Aquatic Chronic 2
Chromium (Hexavalent Compounds)*	Various	Trace	Carc. 1A; Muta. 1B; STOT RE 1; Acute Tox. 2

*Note: Fumes generated during welding may contain hexavalent chromium (Cr VI), a known human carcinogen.

Section 4: First-Aid Measures

Inhalation:
Remove to fresh air. Seek medical attention if symptoms (e.g., coughing, dizziness) develop or persist.

Skin Contact:
Wash with plenty of soap and water. If irritation develops, seek medical attention.

Eye Contact:
Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Seek medical attention.

Ingestion:
Rinse mouth. Do not induce vomiting. Seek immediate medical advice.

Most Important Symptoms/Effects:
May cause respiratory irritation, skin irritation, and eye discomfort. Prolonged exposure to fumes may result in lung damage or metal fume fever.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media:
Use extinguishing media suitable for surrounding fire (dry chemical, CO_2, water spray, foam).

Special Hazards Arising from the Substance:
Metal fumes and oxides may be released during combustion or welding.

Protective Equipment and Precautions for Firefighters:
Wear self-contained breathing apparatus and full protective gear if involved in a fire.

Section 6: Accidental Release Measures

Personal Precautions:
Avoid contact with skin and eyes. Avoid inhalation of dust or fume.

Environmental Precautions:
Prevent entry into waterways and sewers.

Methods for Cleanup:
Sweep or vacuum material to minimize dust generation. Dispose of in accordance with local regulations.

Section 7: Handling and Storage

Precautions for Safe Handling:

- Use only with adequate ventilation or local exhaust.
- Avoid inhaling fumes and dust.
- Wash hands after handling.

Conditions for Safe Storage:

- Store in a cool, dry, well-ventilated area.
- Keep container tightly closed and away from incompatible materials.

Section 8: Exposure Controls/Personal Protection

Exposure Limits:

Component	OSHA PEL (mg/m^3)	ACGIH TLV (mg/m^3)
Iron Oxide Fume	10 (as Fe)	5 (respirable)
Nickel	1	1.5
Manganese	5 (C)	0.1 (inhalable)
Chromium VI	0.005	0.05

Engineering Controls:

- Use local exhaust ventilation (LEV) to control fume exposure.
- Ensure adequate ventilation during welding.

Personal Protective Equipment (PPE):

- **Eye/Face Protection:** Use safety goggles or face shield.
- **Skin Protection:** Wear flame-resistant gloves and long-sleeved clothing.
- **Respiratory Protection:** Use NIOSH-approved respirators when ventilation is inadequate.

Section 9: Physical and Chemical Properties

Property	Value
Appearance	Solid metal rod or wire
Odor	None
Odor Threshold	Not applicable
pH	Not applicable
Melting Point	~1200–1500°C
Boiling Point	Not applicable
Flash Point	Not applicable

Property	Value
Evaporation Rate	Not applicable
Flammability	Not flammable
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Solubility	Insoluble in water
Partition Coefficient (n-octanol/water)	Not determined
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not determined

Section 10: Stability and Reactivity

Reactivity: Not reactive under normal conditions.

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: None expected under normal use.

Conditions to Avoid: Excessive heat, moisture, and incompatible materials.

Incompatible Materials: Strong acids, oxidizers.

Hazardous Decomposition Products: Metal oxides and fumes (e.g., iron oxide, nickel oxide, manganese oxide).

Section 11: Toxicological Information

Likely Routes of Exposure: Inhalation, skin contact, eye contact

Acute Effects:

- Inhalation of fumes may cause metal fume fever.
- Eye and skin irritation.

Chronic Effects:

- Prolonged exposure to welding fumes may cause lung damage, reproductive effects, and cancer (due to nickel and hexavalent chromium).

Carcinogenicity:

- Nickel: IARC Group 1 – Carcinogenic to humans
- Chromium VI: IARC Group 1 – Carcinogenic
- Welding fumes: IARC Group 1 – Carcinogenic

Section 12: Ecological Information

Ecotoxicity:

- Harmful to aquatic life with long-lasting effects.

Persistence and Degradability:

- Metals are not biodegradable.

Bioaccumulative Potential:

- Metals may bioaccumulate in aquatic organisms.

Mobility in Soil:

- Not mobile under normal environmental conditions.

Section 13: Disposal Considerations

Dispose of in accordance with local, regional, national, and international regulations. **Do not** dispose of in waterways or sewage systems. Recycle metal content where applicable.

Section 14: Transport Information

UN Number: Not regulated
UN Proper Shipping Name: Not applicable
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable

Environmental Hazards: See Section 12
Special Precautions: Avoid creating dust; keep dry

Section 15: Regulatory Information

OSHA Hazard Communication Standard (HCS):
This product is classified as hazardous under 29 CFR 1910.1200.

TSCA Inventory: All components listed.

SARA Title III:

- **Section 313 (Toxic Chemicals):** Nickel, Manganese, Chromium
- **Section 302 EHS:** Not applicable

California Proposition 65:
This product contains chemicals (e.g., nickel, chromium) known to the State of California to cause cancer and reproductive harm.

Section 16: Other Information

SDS Revision Date: 7/1/2025
Prepared by: Inweld Corporation Safety Department

Disclaimer:
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