Alloy Repair Rods
Safety Data Sheet

SECTION 1: Identification

1.1. Identification

Product name : Alloy Repair Rods

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

Zaclon LLC
2981 Independence Road
Cleveland, OH 44115
T 216-271-1569 or 800-356-7327

1.4. Emergency telephone number

Emergency number : Chemtrec 1 800 424 9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Aquatic Acute 1 H400 - Very toxic to aquatic life

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS09

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H400 - Very toxic to aquatic life

Precautionary statements (GHS-US) : P273 - Avoid release to the environment
P391 - Collect spillage
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

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

Name	Product identifier	%	Classification (GHS-US)
Zinc	(CAS No) 7440-66-6	50 - 55	Not classified
Tin	(CAS No) 7440-31-5	45 - 50	Not classified
Copper	(CAS No) 7440-50-8	1 - 5	Not classified

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 to fresh air. Support respiration if required - Seek medical attention.

First-aid measures after skin contact : Flush with water immediately - Seek medical attention if necessary.

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 : DO NOT induce vomiting, drink large amounts of water - seek medical attention. Never give anything by mouth to an unconscious person.

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

Symptoms/injuries after inhalation : May cause nose and throat irritation, headache, dizziness, difficulty breathing, coughing, ingestion, nausea, vomiting, cramps.

Symptoms/injuries after skin contact : Causes skin redness, burning, rash, dryness.

Symptoms/injuries after eye contact : Causes redness, burning tearing, blurred vision.

Symptoms/injuries after ingestion : May be harmful if swallowed.

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 : Dry chemical

Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : None known.

Explosion hazard : High concentrations of dust may be explosive above 1100 F. May release metal and metal oxide fumes.

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

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Stop the flow of material, if this is without risk.

Methods for cleaning up : Collect spillage. Dispose of in accordance with relevant local regulations.

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 : Wash thoroughly after use. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a closed corrosive resistant container, with corrosive resistant liner, in cool dry place. Keep out of the reach of children. Read label and SDS prior to use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Tin (7440-31-5)		
ACGIH	ACGIH TWA (mg/m³)	2 mg/m³

Copper (7440-50-8)		
ACGIH	ACGIH TWA (mg/m³)	0.2 mg/m³ (fume)

Copper (7440-50-8)		
OSHA	OSHA PEL (TWA) (mg/m³)	0.1 mg/m³ (fume) 1 mg/m³ (dust and mist)

8.2. Exposure controls

Appropriate engineering controls : Local exhaust and general ventilation must be adequate to meet exposure standards.

Hand protection : Wear impervious gloves to minimize skin contact.

Eye protection : Goggles or face shield.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Rods

Color : Silver/gray

Odor : Odorless

Odor threshold : No data available

pH : No data available

Melting point : 450°F

Freezing point : No data available

Boiling point : 4120°F

Flash point : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Flammability (solid, gas) : No data available

Explosion limits : No data available

Explosive properties : No data available

Oxidizing properties : No data available

Vapor pressure : No data available

Specific gravity : 7.3

Relative vapor density at 20 °C : No data available

Solubility : Insoluble

Log Pow : 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

Strong bases & acids, oxidizers, sulfides, halogens.

10.6. Hazardous decomposition products

High concentrations of dust may be explosive above 1100 F. May release metal and metal oxide fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

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

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.

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])

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])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

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 regulated for transport

SECTION 15: Regulatory information

15.1. US Federal regulations

Zinc (7440-66-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1.0 % (dust or fume only)

Tin (7440-31-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Copper (7440-50-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1.0 %

15.2. US State regulations

Zinc (7440-66-6)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

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

Copper (7440-50-8)
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:

Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
H400	Very toxic to aquatic life

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