

US – OSHA SAFETY DATA SHEET

Issue Date: 4/2/2015

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Soft Lead Anode

OTHER PRODUCT NAMES:

MANUFACTURER: Mayco Manufacturing, LLC
 18 West Oxmoor Road
 Birmingham, AL 35209
 205-942-4242 (Call for additional information)

EMERGENCY TELEPHONE NUMBER: ChemTel – 800-255-9324

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification:

Category	Hazard and Precautionary Statements	
Health Acute Toxicity – Category 4 Reproductive – Category 1A Carcinogenicity – Category 1B Specific Target Organ Toxicity – Category 2	H302	Harmful if swallowed
	H332	Harmful if inhaled
	H360df	May damage fertility or unborn child
	H373	May cause damage to the central nervous system and systems for reproduction organs through prolonged or repeated exposure
	P201	Obtain special instructions before use
	P202	Do not handle until all safety precautions have been read and understood
	P260	Do not breathe dust/vapors
Environmental Aquatic Chronic – 1 Aquatic Acute – 1	P281	Use personal protective equipment as required
	P308 + P313	If exposed or concerned, get medical advice/attention
	H400	Very toxic to aquatic life
Handling	H410	Very toxic to aquatic life with long lasting effects
	P405	Store locked up
	P501	Dispose of contents/container in accordance with local/regional/national/international regulations

GHS Label: Lead Products



Signal Word: DANGER!

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Material	% by Wt.	CAS #	OSHA EXPOSURE LIMIT
Lead	82 – 95	7439-92-1	0.05 mg/cubic meter
Copper	4.4 – 17.9	7440-50-8	0.10 mg/cubic meter
Tin	0.1 – 2.6	7440-35-5	2.00 mg/cubic meter

SECTION 4: FIRST AID MEASURES

Eye Contact: Remove contact lenses if applicable and flush eyes with water for at least 15 minutes.

Skin Contact: Wash skin thoroughly. If contact with molten metal, cool skin rapidly and seek medical assistance.

Ingestion: Do not induce vomiting. Call poison control center or doctor.

Inhalation: Remove from exposure and rest in a position comfortable for breathing.

Important Symptoms & Effects, Acute & Delayed: Lead poisoning can occur through acute or chronic doses. Symptoms include headaches, abdominal pain, memory loss, kidney failure, anemia, and change in skin tone, reproductive problems, weakness, pain, or tingling.

Indication of Medical Attention: If any acute or chronic symptoms arise or if feeling unwell after exposure, seek medical advice.

SECTION 5: FIRE-FIGHTING MEASURES

Flash Point: Not Applicable

Flammable Limits: Not Applicable

Extinguishing Media: Dry chemical, foam or CO₂. Do not use water when molten metal is present.

Hazards Combustion Products: Molten metals produce fume, vapor and or dust that may be toxic and/or respiratory irritants. Lead metal is not flammable or explosive. This product or its dust can react violently with strong oxidizing agents.

Fire Fighting Procedures: Use full-body protective clothing. Wear self-contained, full-face, positive pressure breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Allow metal to cool and solidify if molten. Lead dust or particulate should be vacuumed using a vacuum with a HEPA filter or wet-swept. Place spilled materials in dry, closed containers for proper disposal or recycling. Do not dry sweep or use compressed air.

SECTION 7: HANDLING AND STORAGE

Handling: Minimize dust generation and accumulation. Follow good hygiene practices. Do not eat, drink, smoke or apply personal products when handling. Avoid contact with eyes, skin, and clothing. Wear personal protective equipment as necessary and recommended in Section 8. Wash exposed skin with soap and water after handling.

Storage: Store away from strong oxidizers. Keep away from food and beverages. Protect from physical damage and surface oxidation.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Lead 7439-92-1	TWA: 0.15 mg/m ³ Pb	TWA: 0.05 mg/m ³ Pb	IDLH: 100mg/m ³ Pb TWA: 0.050 mg/m ³ Pb
Copper 7440-50-8	TWA: 1.0 mg/m ³ Cu	TWA: 1.0 mg/m ³ Cu	IDLH: 0.50 mg/m ³ Cu TWA: 0.5 mg/m ³ Cu
Tin 7440-31-5	TWA: 2.0 mg/m ³ Sn	TWA: 2.0 mg/m ³ Sn	IDLH: 100 mg/m ³ Sn TWA: 2.0 mg/m ³ Sn

Engineering Controls: Handle and process in well-ventilated areas. Ensure that dust-handling systems are designed in a manner to prevent the escape of dust/fume into the work area. Emergency eyewash stations and safety showers should be available in the immediate vicinity of use. Ensure compliance with local/regional/national/international regulations.

Personal Protective Equipment: Protective goggles, gloves, and clothing, as needed. Respiratory protection, as necessary when exposures are unknown or above the PEL.

Eye/Face Protection: Use safety glasses with side shields or chemical goggles.

Skin and Body Protection: Protective clothing is required if exposure exceeds the PEL or TLV or where the possibility of skin or eye irritation exists. Full body cotton or disposable coveralls and disposable gloves should be worn during use and handling. Clothing and gloves should be left at work site and either properly disposed or laundered after use in accordance with applicable regulations. Personal clothing, including shoes/boots, should be protected from contamination. If working with molten or hot metals use heat-resistant gloves.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn as appropriate for protection from toxic dust.

General Hygiene Considerations: Do not eat, drink, smoke or apply cosmetics when using this product. Thoroughly wash face, hands and other exposed skin after handling or processing. Contaminated work clothing should not be allowed outside the workplace except for disposal or laundering.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid

Appearance: Gray with bluish or silvery tint

Odor: N/A

pH: N/A

Melting Point: 327.43°C (621.4°F)

Boiling Point: 1740°C (3164°F)

Boiling Range: N/A

Flash Point: N/A

Evaporation Rate: N/A

Flammability: N/A

Upper/Lower Flammability Limit: N/A

Molecular weight: 207.21g/mol

Viscosity: N/A

Decomposition Temperature: N/A

Auto Ignition Temperature: N/A

Partition Coefficient: N/A

Solubility: N/A

Specific Gravity (Relative Density): 11.3

Vapor Density: N/A

Vapor Pressure: 1mm Hg@ 973°C (1783°F)

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Stable under normal conditions.

Chemical Stability: Stable under normal conditions.

Possible Hazardous Reactions: None under normal processing.

Hazardous Polymerization: Hazardous polymerization does not occur.

Conditions to Avoid: Incompatible materials

Incompatible Materials: Strong oxidizing agents

Hazardous Decomposition Products: Lead oxides

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Exposure: Hazardous exposure can occur when the product is heated, oxidized or otherwise processed or damaged to create dust, vapor or fume. Main routes of exposure include ingestion and inhalation.

Chronic and Acute Related Symptoms/Effects: Acute ingestion of lead may cause abdominal pain, nausea, vomiting, diarrhea and severe cramping. This may lead rapidly to systemic toxicity including kidney failure, anemia, and reproductive problems, and must be treated by a physician. Chronic exposure may cause cancer or lead poisoning. Acute inhalation of lead dust may cause irritation of upper respiratory tract and lungs and can result in both acute and chronic overexposure.

Measures of Toxicity:

Acute Toxicity Estimate-Lead: 500 mg/kg body weight

Acute Toxicity-Antimony: LD50 (mouse) – 145 mg/kg

Carcinogenic Effects:

May cause cancer. Lead is listed as a 2B carcinogen, likely in animals at extreme doses. Proof of carcinogenicity in humans is currently lacking.

IARC Group: 2A

National Toxicology Program (NTP) Status: Reasonably anticipated to be a human carcinogen.

Additional Health Data: Heavy metals, such as lead and antimony, are taken into the body primarily by inhalation and ingestions. Most inhalation problems can be avoided with adequate precautions such as ventilation and respiratory protection. Follow good personal hygiene practices to avoid inhalation and incidental ingestions. Restrict the use and presence of food, tobacco, and cosmetics to non-contaminated areas. Wash before eating, smoking or leaving the work site. Keep contaminated clothing and PPE out of non-contaminated areas. Do not allow contaminated clothing of PPE to be taken home. These products are intended for professional and industrial uses and should be isolated from children and their environment.

SECTION 12: ECOLOGICAL INFORMATION

Environmental Fate: Toxic to aquatic life and terrestrial environments.

Persistence and Degradability: Lead is persistent in soil and sediments. No data on environmental degradation.

Bioaccumulation Potential: Lead bioaccumulates in animals and plants.

Mobility in Soil: Lead accumulates in soil but is not particularly mobile.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste materials or by-products formed during handling or processing, and contaminated packaging should be properly characterized and disposed in accordance with applicable local/regional/national/international rules and regulations or recycled as appropriate. Consult local, state or federal environmental agencies for applicable requirements.

SECTION 14: TRANSPORT INFORMATION

The lead products covered by this Safety Data Sheet are not subject to DOT regulation. Waste materials or by-products formed during handling or processing or due to damage may be subject to regulation. Consult DOT for applicable requirements.

SECTION 15: REGULATORY INFORMATION

US Federal Regulations:

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	CAS No.	Weight - %	SARA 313 – Threshold Values %
Lead	7439-92-1	≥80%	0.1
Copper	7440-50-8	≤1%	1.0
Tin	7440-31-5	≤10%	-

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes

CERCLA (Comprehensive Environmental Response, Compensation and Liability Act)

Lead has an RQ (reportable quantity) of 10 pounds

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA – Reportable Quantities	CWA – Toxic Pollutants	CWA – Priority Pollutants	CWA – Hazardous Substances
Lead 7439-92-1	10 lb.	X	X	X
Copper – 7440-50-8	1 lb.	-	X	X
Tin – 7440-31-5	-	-	-	-

TSCA (Toxic Substance Control Act)

Lead is listed on the TSCA inventory

U.S. State Regulations:

California Proposition 65  "WARNINGS"

This product can expose you to chemicals such as 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.

Chemical Name	California Proposition 65
Lead – 7439-92-1	Cancer
Copper – 7440-50-8	No listed
Tin – 7440-31-5	No listed

US State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Lead – 7439-92-1	X	X	X
Antimony – 7440-50-8	X	X	X
Tin – 7440-31-5	X	-	X

SECTION 16: OTHER INFORMATION

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Revision Note: More concise information. Corrected transport information. Minor reformatting.

Disclaimer: The information provided in this Safety Data Sheet is based upon information and sources available at the time of its preparation or revision which the manufacturer believes is reliable but is beyond its supervision or control. There is no warranty, expressed or implied, with respect to this information and the manufacturer assumes no liability resulting from its use. The manufacturer assumes no responsibility and expressly disclaims liability for loss, damage or expense arising out of or in any way connected with the handling, processing, storage, use or disposal of these products. It is the user's responsibility to determine the suitability of this product and to comply with the requirements of all applicable rules and regulations regarding the handling, use, processing, and disposal of these products.