



SAFETY DATA SHEET
EPM LEAD ALLOY PARTS

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: EPM Lead Alloy Parts

MANUFACTURER: East Penn Manufacturing Co.
ADDRESS: Deka Road
Lyon Station, PA 19536 USA

EMERGENCY TELEPHONE NUMBERS: US/CN: CHEMTREC 1-800-424-9300
Outside US/CN: CHEMTREC 1-703-527-3887

NON-EMERGENCY HEALTH/SAFETY INFORMATION: 610-682-6361

PRODUCT USE: Lead acid battery component.

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification:

Health	Environmental	Physical
Acute Toxicity – Category 4 Reproductive – Category 1A Carcinogenicity (lead)– Category 1B Carcinogenicity (arsenic)– Category 1A Target Organ Toxicity – Category 2 Specific Target Organ Toxicity (Repeated exposure) – Category 2	Aquatic Chronic – 1 Aquatic Acute - 1	Not Classified

GHS Label: EPM Lead Alloy Parts



Signal Word: DANGER !



SAFETY DATA SHEET

EPM LEAD ALLOY PARTS

<u>Hazard Statements</u>	<u>Precautionary Statements</u>
<p>Health Harmful if swallowed, inhaled, or in contact with skin. May damage fertility or unborn child if ingested or inhaled. May cause damage to central nervous system, blood and kidneys through prolonged or repeated exposure if ingested or inhaled. May cause cancer if ingested or inhaled. May cause harm to breast-fed children.</p> <p>Environmental Very toxic to aquatic life with long lasting effects.</p> <p>Physical Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.</p>	<p>Prevention Do not breath fume and dust. Wear protective gloves/protective clothing/eye protection. Wash thoroughly after handling. If exposed or concerned: Get medical advice/attention. Avoid contact during pregnancy/while nursing.</p> <p>Response IF INGESTED: consult a physician immediately. IF ON CLOTHING OR SKIN: remove/take off all contaminated clothing and wash it before reuse. Rinse skin with water/shower.</p> <p>Storage and Disposal Avoid release to the environment. Dispose of contents/container in accordance with local/regional/national/international regulations. Keep out of reach of children.</p>

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENTS (Chemical/Common Names):</u>	<u>CAS No.:</u>	<u>% by Wt:</u>	<u>EC No.:</u>
Lead	7439-92-1	>94.0	231-100-4
Antimony	7440-36-0	2.8-6.0	231-146-5
Arsenic	7440-38-2	<0.2	231-148-6
Tin	7440-31-5	<0.4	231-141-8

Additional Information: Additional elements such as copper, silver, nickel, etc. may be present, however their concentration is less than 0.10%.

SECTION 4: FIRST AID MEASURES

- EYE CONTACT:** Flush eyes with large amounts of water for at least 15 minutes. Seek immediate medical attention if eye irritation persists.
- SKIN CONTACT:** Wash immediately with soap and water.
- INGESTION:** Consult physician immediately.
- INHALATION:** Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

SECTION 5: FIRE-FIGHTING MEASURES

FLASH POINT: NOT APPLICABLE

FLAMMABLE LIMITS: NOT APPLICABLE

SUITABLE/UNSUITABLE EXTINGUISHING MEDIA:

Dry chemical and/or carbon dioxide.

SPECIAL FIRE-FIGHTING PROCEDURES & PROTECTIVE EQUIPMENT:

Use appropriate media for surrounding fire. Highly toxic lead fumes may evolve when the metal is heated. Wear protective clothing and a self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Lead dust is a moderate fire and explosion hazard when exposed to heat or flame. Lead parts may contain cavities of moisture when stored in a wet environment; entrapped moisture may expand explosively in contact with molten metal.

SPECIFIC HAZARDS IN CASE OF FIRE:

Hazardous Combustion Products:

Molten metals produce fume, vapor and/or dust that may be toxic and/or respiratory irritants.



SAFETY DATA SHEET EPM LEAD ALLOY PARTS

Additional Information

Fire-fighting water runoff and dilution water may be toxic and may cause adverse environmental impacts.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Always use good hygiene practices when handling lead and it's compounds. Recommend practice includes showering at the end of each work shift, lead contaminated clothing should be properly laundered, and wash thoroughly after handling, and before eating, drinking, and smoking.

ENVIRONMENTAL PRECAUTIONS:

Prevent spilled material from entering sewers and waterways.

SPILL CONTAINMENT & CLEANUP METHODS/MATERIALS:

No special precautions are necessary for spills of cast lead alloy parts. Scrap metal can be reclaimed for reuse. Follow federal, state, and local regulations for disposal.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING AND STORAGE:

- Store in dry area.

Wash hands after handling.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits (mg/m³)

Ingredients	OSHA PEL	ACGIH	US NIOSH	Quebec PEV	Ontario OEL	EU OEL
Lead	0.05	0.05	0.05	0.05	0.05	0.15 (a)
Antimony	0.5	0.5	0.5	0.5	0.5	0.5 (a,b)
Tin	2	2	2			
Arsenic	0.01	0.01	0.01			

(a) As inhalable aerosol (b) Based on OEL's of Austria, Belgium, Denmark, France, Netherlands, Switzerland, & U.K.

ENGINEERING CONTROLS/SYSTEM DESIGN INFORMATION:

Store and handle in a dry, well ventilated area.

HYGIENE PRACTICES:

Wash hands thoroughly before eating, drinking or smoking.

VENTILATION:

General dilution ventilation is acceptable.

RESPIRATORY PROTECTION:

Not required for normal conditions of use.

EYE PROTECTION:

Wear protective glasses with side shields or goggles.

SKIN PROTECTION:

Wear chemical resistant gloves as a standard procedure to prevent skin contact.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None required under normal use conditions.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Bluish-gray soft metal
ODOR:	Odorless
ODOR THRESHOLD:	NA (Not Applicable)
PHYSICAL STATE:	Solid
pH:	NA
BOILING POINT:	1740°C
MELTING POINT:	328°C
FREEZING POINT:	NA
VAPOR PRESSURE:	1 mmHg at 973°C



SAFETY DATA SHEET

EPM LEAD ALLOY PARTS

VAPOR DENSITY (AIR = 1):	NA
SPECIFIC GRAVITY (H ₂ O = 1):	11.3 (at 20°C)
EVAPORATION RATE (n-BuAc=1):	NA
SOLUBILITY IN WATER:	Insoluble
FLASH POINT:	NA
AUTO-IGNITION TEMPERATURE:	NA
LOWER EXPLOSIVE LIMIT (LEL):	4%
UPPER EXPLOSIVE LIMIT (UEL):	74%
PARTITION COEFFICIENT:	NA
VISCOSITY (poise @ 25° C):	Not Available
DECOMPOSITION TEMPERATURE:	Not Available

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	This product is stable under normal conditions at ambient temperature.
REACTIVITY:	In molten form may react violently with water.
INCOMPATIBILITY (MATERIAL TO AVOID):	Strong acids, strong bases, and strong oxidizers.
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:	Thermal oxidation products are highly toxic lead fumes.
HAZARDOUS POLYMERIZATION:	Will not occur
CONDITIONS TO AVOID:	NA

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Lead: Inhalation LD₅₀: Acute Toxicity Point Estimate = 4500 ppmV (based on lead bullion)
Oral LD₅₀: Acute Toxicity Estimate (ATE) = 500 mg/kg body weight (based on lead bullion)

Inhalation: Inhalation of dust or fume may cause irritation of upper respiratory tract and lungs

Ingestion: Acute ingestion may cause abdominal pain, nausea, vomiting, diarrhea, and severe cramping. This may lead to systemic toxicity and must be treated by a physician.

Skin Contact: Not absorbed through the skin and is not a dermal sensitizer.

Eye Contact: May cause eye irritation.

Medical Conditions Generally Aggravated by Exposure: Lead and its compounds can aggravate some forms of kidney, liver, and neurologic diseases.

Additional Health Data: Heavy metals, including the hazardous ingredients in this product are taken into the body primarily by inhalation and ingestion. Most inhalation problems can be avoided by adequate protection such as ventilation controls and respiratory protection as covered in Section 8. Follow good personal hygiene practices to avoid inhalation and ingestion: wash hands, face, neck and arms thoroughly before eating, drinking, smoking or leaving the work site. Keep contaminated clothing out of non-contaminated areas, or wear cover clothing when in such areas. Restrict the use and presence of food, tobacco and cosmetics to non-contaminated areas. Work clothes and work equipment used in contaminated areas must remain in designated areas and never taken home nor laundered with personal non-contaminated clothing.

Children and pregnant women must be protected from lead exposure. Persons with kidney disease may be at increased risk of kidney failure.

SUBCHRONIC/CHRONIC TOXICITY (Test Results and Comments):

Repeated exposure to lead and lead compounds in the workplace may result in nervous system toxicity. Some toxicologists report that abnormal conduction velocities in person with blood lead levels of 50 µg/100 ml or higher. Heavy lead exposure may result in central nervous system damage, encephalopathy, and damage to the blood-forming (hematopoietic) tissues. May damage fertility or unborn child.

SECTION 12: ECOLOGICAL INFORMATION

PERSISTENCE & DEGRADABILITY:

Lead is very persistent in soils and sediments. No data available on biodegradation.

BIO-ACCUMULATIVE POTENTIAL (Including Mobility):



SAFETY DATA SHEET EPM LEAD ALLOY PARTS

Mobility of metallic lead between ecological compartments is low. Bioaccumulation of lead occurs in aquatic and terrestrial animals and plants, but very little bioaccumulation occurs through the food chain. Most studies have included lead compounds, not solid inorganic lead.

AQUATIC TOXICITY (Test Results & Comments):

Lead (metal): 48 hr LC₅₀ (modeled for aquatic invertebrates): < 1mg/L, based on lead bullion

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:

Lead parts are recyclable by secondary lead smelters. Dispose of waste material in accordance with all local, regional, and national regulations. Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

GROUND – US-DOT/CAN-TDG/EU-ADR/APEC-ADR:

Proper Shipping Name Not regulated as a Hazardous Material, Dangerous Goods

AIRCRAFT – ICAO-IATA:

Proper Shipping Name Not regulated as a Hazardous Material, Dangerous Goods

VESSEL – IMO-IMDG:

Proper Shipping Name Not regulated as a Hazardous Material, Dangerous Goods

SECTION 15: REGULATORY INFORMATION

INVENTORY STATUS:

All components are listed on the TSCA; EINECS/ELINCS; and DSL, unless noted otherwise below.

U.S. FEDERAL REGULATIONS:

TSCA Section 8b – Inventory Status: All chemicals comprising this product are listed on the TSCA Inventory.

TSCA Section 12b – Export Notification: If the finished product contains chemicals subject to TSCA Section 12b export notification, they are listed below:

Chemical	CAS #
None	NA

EPA SARA Title III

Section 302 EPCRA Extremely Hazardous Substance (EHS): Lead; Not Applicable

Section 304 CERCLA Hazardous Substance: Lead; Not Applicable

The finished product contains chemicals subject to the reporting requirements of Section 313 of SARA Title III.

Chemical	CAS #	% wt
Lead	7439-92-1	94

STATE REGULATIONS (US):

California Proposition 65

The following chemicals identified to exist in the finished product as distributed into commerce are known to the State of California to cause cancer, birth defects, or other reproductive harm:

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

Chemical	CAS #	% Wt
Arsenic (as arsenic oxides)	7440-38-2	<0.2
Lead	7439-92-1	94

California Consumer Product Volatile Organic Compound Emissions

This Product is not regulated as a Consumer Product for purposes of CARB/OTC VOC Regulations, as-sold for the intended purpose and into the Industrial/Commercial supply chain.

INTERNATIONAL REGULATIONS (Non-US):

Canadian Domestic Substance List (DSL)

All ingredients remaining in the finished product as distributed into commerce are included on the Domestic Substances List.

WHMIS Classifications



SAFETY DATA SHEET

EPM LEAD ALLOY PARTS

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the Controlled Products Regulations.

NPRI and Ontario Regulation 127/01

This product contains the following chemicals subject to the reporting requirements of Canada NPRI +/- or Ont. Reg. 127/01:

<u>Chemical</u>	<u>CAS #</u>	<u>% Wt</u>
Lead	7439-92-1	94

SECTION 16: OTHER INFORMATION

OTHER INFORMATION:

Distribution into Quebec to follow Canadian Controlled Product Regulations (CPR) 24(1) and 24(2).
Distribution into the EU to follow applicable Directives to the Use, Import/Export of the product as-sold.

SOURCES OF INFORMATION:

International Agency for Research on Cancer (1987), *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: Overall Evaluations of Carcinogenicity: An updating of IARC Monographs Volumes 1-42, Supplement 7, Lyon, France.*
Ontario Ministry of Labour Regulation 654/86. Regulations Respecting Exposure to Chemical or Biological Agents.
RTECS – Registry of Toxic Effects of Chemical Substances, National Institute for Occupational Safety and Health.

SDS PREPARATION INFORMATION:

DATE OF ISSUE: 3 August 2015

DISCLAIMER:

This Safety Data Sheet is based upon information and sources available at the time of preparation or revision date. Information in the SDS was obtained from sources which we believe are reliable, but are beyond our direct supervision or control. We make no Warranty of Merchantability, Fitness for any particular purpose or any other Warranty, Expressed or Implied, with respect to such information and we assume no liability resulting from its use. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. It is the obligation of each user of this product to determine the suitability of this product and comply with the requirements of all applicable laws regarding use and disposal of this product. For additional information concerning East Penn Manufacturing Co. products or questions concerning the contents of this SDS please contact your East Penn representative.