Safety Data Sheet for Lead Based Babbitt

According to US OSHA, CMA, ANSI, Canadian WHMIS Standards,
Date: 03-14-2024
Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER:

Commercial Product Name: **Lead Based Babbitt**
Unique Product Code: **LBB**
Trade Name: **ASTM #15, #4 Regular, Chipper #13, Chipper Alloy, Choker, CT, Harris Heavy Pressure, Hi Speed Linotype, 4/12 Linotype, Magnolia Def., Mill Anchor, Planer, Saw Guide.**
Chemical Composition/Product Form: **Lead, Antimony, Tin**
CAS No: **7440-31-5, 7440-38-2, 7440-36-0, 7439-92-1**

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCES OR MIXTURES AND USES ADVISED AGAINST:

Intended use: **This product is a lead based alloy**
Recommended restrictions on use: **This product is to be used, not other than specified purpose**

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:

Company Name: **PURITY CASTING ALLOYS LTD**
Company Address: **#15 - 18503 - 97th Avenue Surrey, B.C. V4N 3N9 Canada**
Business Telephone: **(604) 888-0181**
Website: **www.purityalloys.com**
Email: **sales@purityalloys.com**

1.4 EMERGENCY TELEPHONE NUMBERS (24-HOUR EMERGENCY CONTACT):

24-hour Emergency Contact: **(604) 888-0181**

SECTION 2: HAZARDS IDENTIFICATION:

2.1 EMERGENCY OVERVIEW:

This SDS should be retained and available for employees and other users of this product. This is a personal care or cosmetic product that is safe for consumers and other users under intended and reasonably foreseeable use. This material is not classified as hazardous under **U.S. OSHA regulations (29CFR 1910.1200) (HAZCOM 2012)** and **Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015)**.

2.2 GHS-US LABELING AND CLASSIFICATION:

Hazards Classification of Substance: Not classified as hazardous substance
Signal Word (GHS-US): Not Required
Hazards Pictograms (GHS-US) Not Required
Hazard Statements (GHS-US): Not Required
Precautionary Statements (GHS-US): Not Required
Storage Statements (GHS-US): Please refer to Section 7 for Storage and Section 13 for Disposal information.

Disposal Statements (GHS-US): **P501:** Dispose of contents and/or container in accordance with local, regional, national and/or international regulation. Please refer to Section 7 for Storage and Section 13 for Disposal information.

Hazard(s) not otherwise classified (HNOC): None Identified

Supplemental Information: None

2.3 HEALTH HAZARDS OR RISKS FROM EXPOSURE:

2.3.1 SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE:

The most significant routes of overexposure for this product are by contact with skin or eyes. The symptoms of overexposure are described in the following paragraphs.

Acute:

Inhalation: If inhaled, See "Ingestion", CNS damage (results in fatigue, tremors, hallucinations, convulsions, delirium), weight loss, sleep disturbance.

Skin Contact: May cause local irritation. Remove contaminated clothing and wash affected area with soap and water.

Eye Contact: Molten metal could splash into eye. Flush with cool water for 15 minutes. Seek immediate medical aid.

Ingestion: DO May cause headache, nausea, abdominal pains, fatigue, muscle/joint, pain, kidney disfunction, wrist-drop. Seek immediate medical attention.

Chronic: Possible anemia, central nervous system and kidney damage.
Severe inhalation may cause lung inflammation and pulmonary edema.

Carcinogenic Effects: IARC (Yes)

Mutagenic Effects: Yes

Teratogenic Effects: Yes

Developmental Not available

Toxicity: Not available

Adverse effects: Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 TYPE OF PRODUCT:

Mixture

3.2 INGREDIENTS:

CHEMICAL NAME	PRODUCT IDENTIFIER CAS NO.	COMPOSITION%	GHS CLASSIFICATION

TIN	**7440-31-5**	**15-16.00%**	**NON HAZARDOUS**
ARSENIC	**7440-38-2**	**0.10-1.40%**	**NON HAZARDOUS**
ANTIMONY	**7440-36-0**	**9-19.00%**	**NON HAZARDOUS**
LEAD	**7439-92-1**	**59-89.50%**	**NON HAZARDOUS**

SECTION 4: FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

4.1.1 FIRST AID MEASURES GENERAL:

Never give anything by mouth to an unconscious person If you feel unwell, seek medical advice (show the label where possible)

4.1.2 IN CASE OF INHALATION:

In case of inhalation, fumes from welding and dust from grinding can cause “Metal Fume Fever”. Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing stops, give artificial respiration. In case of breathing difficulties administer oxygen by trained personnel. Seek medical attention immediately

4.1.2 IN CASE OF SKIN CONTACT:

It may cause dermatitis. Wash with plenty of water consult a physician. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use.

4.1.3 IN CASE OF EYE CONTACT:

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minute holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing and immediately get medical attention.

4.1.4 IN CASE OF INGESTION:

Ingestion is unlikely because of the physical properties and is not expected to be hazardous. However it may cause metallic taste, abdominal cramps, frequent headaches, foul breathes, stomatitis, nephritis.

4.2 SYMPTOMS AND EFFECTS BOTH ACUTE AND DELAYED:

4.2.1 SYMPTOMS/INJURIES:

Causes skin and eye irritations. Material may be irritating to the mucous membranes and upper respiratory tract.

4.2.2 SYMPTOMS/INJURIES AFTER INHALATION:

May cause drowsiness or dizziness

4.2.3 SYMPTOMS/INJURIES AFTER SKIN CONTACT:

May cause skin irritation and itching.

4.2.4 SYMPTOMS/INJURIES AFTER EYE CONTACT:

Causes serious eye irritation.

4.2.5 SYMPTOMS/INJURIES AFTER INGESTION:

May cause irritation of the linings of the mouth, throat and gastrointestinal tract. Ingestion may cause nausea, vomiting and diarrhea.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

No additional information available

5.1 SUITABLE EXTINGUISHING MEDIA:

Use the following fire extinguishing media:

Water Spray:	NO
Carbon Di Oxide:	NO
Alcohol Resistant Foam:	NO
Dry Chemical:	YES

5.2 SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:

Explosion Hazards:	No Information Available
Specific Hazards Arising from the Chemical:	This product is not flammable at ambient temperatures and atmospheric pressure.
Hazardous Combustion Products:	No Information Available
Reactivity:	Not Determined

5.3 ADVICE FOR FIRE FIGHTERS:

Firefighters should wear full firefighting turn-out gear (full Bunker gear) including **NIOSH** approved self-contained breathing apparatus **(SCBA)** with full face piece operated in the pressure demand or other positive pressure mode.

Special protective equipment and precautions for firefighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighter's protective clothing will only provide limited protection. Wear self-contained breathing apparatus with a full face piece operated in the positive pressure demand mode when fighting fires.
Firefighting equipment/instructions:	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage. Ventilate closed spaces before

	entering them. Keep run-off water out of sewers and water sources.
Specific methods:	Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing gas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

6.2 ENVIRONMENTAL PRECAUTIONS:

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13. Should not be released into environment.

6.3 SPILL AND LEAK RESPONSE:

Small Spills:	Evacuate personnel to safe areas
Large Spills:	Ventilate the area

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:	Use with adequate ventilation. Wear suitable protective equipment during handling. Avoid breathing dust, fume or vapors. Wear protective gloves. Avoid contact with skin, eyes and clothing. Keep away from extreme heat and direct flame. Keep container tightly closed when not in use. Wash thoroughly after handling. Protect from moisture.
7.1.1 HYGIENE MEASURES:	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Technical Measures:	Ensure the ventilation system is regularly maintained and tested. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits. A washing facility/water for eye and skin cleaning purposes should be present. Comply with applicable regulations.
Storage Conditions:	Store away from incompatible materials. Protect from freezing and physical damage. Keep away from food and beverages.

Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store in cool, dry conditions in well-sealed containers. Store with like hazards.

7.3 SPECIFIC END USE(S):

No additional information available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 EXPOSURE PARAMETERS:

Not Established as a Mixture

8.2 EXPOSURE CONTROLS:

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states(including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

Personal Protective Equipment: avoid all unnecessary exposure. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations. For certain operations, additional personal protection equipment (PPE) may be required i.e. Protective goggle, gloves, protective clothing.

Respiratory protection: Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE) or NIOSH approved respirator. Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals. Care must be taken to assure that any respirator chosen is capable of protecting the user from both ammonia and ethyl alcohol vapors.

Eye Protection: Safety glasses or goggles are recommended.
If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

Hand Protection:	Glove material: Viton (R) Gloves must be inspected prior to use. Replace when worn. Protective gloves against cold (EN 511) **Remarks: Supplementary note:** The specifications are based on information and tests from similar substances by analogy. Due to varying conditions (e.g. Temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374. Since actual conditions of practical use often deviate from standardized conditions according EN 374 the glove manufacturer recommends using the chemical protective glove in practice not longer than 50% of the recommended permeation time. Manufacturer´s directions for use should be observed because of great diversity of types. Suitable gloves tested according EN 374 are supplied
Body Protection:	Use body protect appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Appearance (Physical State and Color):	Solid, Metallic Silver
Odor:	Odorless
Odor Threshold:	Not Available
pH:	Not Available
Melting/Freezing Point:	245-287
Boiling Point:	1740
Flash Point:	Not Available
Evaporation Rate:	Not Available
Flammability (Solid; Gas):	Not Available
Upper/Lower Flammability or	Not Available

Explosion Limits:	Not Available
Vapor Pressure:	Pb 1mm@970 C
Vapor Density:	Pb 7.1
Relative Density:	Not Available
Density kg/m3 @ 21.1°C:	Not Available
Specific Gravity:	Various
Solubility in Water:	Insoluble in Water
Weight per Gallon:	Not Available
Partition Coefficient (n-octanol/water):	Not Available
Auto-Ignition Temperature:	Not Available
Decomposition Temperature:	Not Available

9.2 OTHER INFORMATION

No additional information is available at this time

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	Stable under normal conditions. Hazardous polymerization does not occur.
Chemical Stability:	Product is considered stable and hazardous polymerization will not occur.
Possibility of Hazardous Reactions:	No Data Available
Conditions to Avoid:	No Data Available
Incompatible Materials:	No Data Available
Hazardous Decomposition Products:	Toxic lead oxide fumes will form at elevated temps.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

No experimental toxicological data on the preparation is available.

Skin corrosion/irritation:	No Data Available
Serious eye damage/irritation:	No Data Available
Respiratory or skin sensitization:	Not classified (based on available data, the classification criteria are not met)
Germ cell mutagenicity:	Yes
	IARC (Yes)
Carcinogenicity:	

Reproductive Toxicity:	Yes
Specific target organ toxicity (single exposure):	Not classified (based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure):	Not classified (based on available data, the classification criteria are not met)
Aspiration Hazards:	Not classified (based on available data, the classification criteria are not met)
Potential adverse human health effects and symptoms:	Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation:	Not classified (based on available data, the classification criteria are not met)
Symptoms/injuries after skin contact:	May cause local irritation
Symptoms/injuries after eye contact:	Molten metal could splash in eye
Symptoms/injuries after ingestion:	May cause headache, nausea, abdominal pains, fatigue, muscle/joint pain, kidney disfunction, wrist-drop.

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY

No specific data available on this product.

12.2 PERSISTANCE AND DEGRADIBILITY:

No specific test data available for the mixture

12.3 BIO ACCUMULATIVE POTENTIAL:

No specific test data available for the mixture

12.4 MOBILITY IN SOIL:

No specific data available on this product.

12.5 RESULTS OF PBT AND vPvB ASSESSMENT:

No specific data available on this product.

12.6 OTHER ADVERSE EFFECTS:

Avoid release to the environment.

12.7 WATER ENDANGERMENT CLASS:

At present, there are no eco-toxicological assessments for this product.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Additional Information: Handle empty containers with care.

Ecology – Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

14.1 U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS:

This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows;

UN Identification Number: Not Regulated

Proper Shipping Name: None

Hazard Class Number and Description: None

Packing Group: None

DOT Label(s) Required: None

North American Emergency Response Guidebook Number: None

RQ Quantity: None

14.2 ENVIRONMENTAL HAZARDS:

Marine Pollutant: The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

14.3 SPECIAL PRECAUTION FOR USER: None

14.4 INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA) AND ICAO:

This product is not considered as dangerous good.

14.5 INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO):

This product is not considered as dangerous good.

14.6 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND IBC CODE:

European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR):

This product is not considered by the United Nations Economic Commission for Europe to be dangerous goods

SECTION 15: REGULATORY INFORMATION

COUNTRY	INVENTORY LIST	STATUS
UNITED STATES	TSCA	All ingredients are listed or otherwise compliant

EUROPE	EINECS or ELINCS	All ingredients are listed or otherwise compliant
CANADA	CEPA (DSL/NDSL)	All ingredients are listed or otherwise compliant
AUSTRALIA	AICS	All ingredients are listed or otherwise compliant
JAPAN	ENCS	All ingredients are listed or otherwise compliant
SOUTH KOREA	KECI	All ingredients are listed or otherwise compliant
CHINA	IECSC	All ingredients are listed or otherwise compliant
PHILIPPINES	PICCS	All ingredients are listed or otherwise compliant

US EPA TSCA Requirements: No data available

Canada WHMIS Confidential Business Information (CBI): No data available

US EPA SARA TITLE III Reporting and Notification Requirements:

Subject to Section 302 (TPQ): No data available

Subject to Section 304 (RQ): No data available

Subject to Section 311 or 312: Refer to the health and physical classifications in section 2

Subject to Section 313: No data available

State Regulatory Information: Chemicals listed below may be specifically regulated by individual states. For details on state regulatory requirements you should contact the appropriate state agency.

SECTION 16: OTHER INFORMATION

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The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary.

All health and safety information contained in this bulletin should be provided to your employees or customers. **PURITY CASTING ALLOYS LTD** assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, **PURITY CASTING ALLOYS LTD** assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.

Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.