

PRODUCT SAFETY DATA SHEET

INORGANIC LEAD COMPOUND
CONTAINS ANTIMONY AND ARSENIC

Last Revision: September, 1985

I. PRODUCT IDENTIFICATION

MANUFACTURER General Battery Corporation
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PRODUCT Inorganic Lead Compound
 SYNONYMS Hard lead, antimonial lead, arsenical lead, "pig" lead, lead "hog",
 lead "sow"

II. HAZARDOUS INGREDIENTS

<u>CHEMICAL NAME</u>	<u>CAS NO.</u>	<u>% BY WEIGHT</u>	<u>OTHER NAMES</u>	<u>DEPT. OF TRANSPORT. NAME/NO.</u>	<u>OSHA PERMISSIBLE AIR CONCENTRATION</u>
Inorganic Lead	7439-92-1	87.5-99.9	See above.	Not listed.	50 ug/m ³
Antimony	7440-36-0	0.5-5.0	Antimonial metal.	N/A	0.5 mg/m ³
Inorganic Arsenic	7440-38-2	0.01-0.5	Arsenic metal.	N/A	10.0 ug/m ³

N/A = Not applicable to DOT requirements.

III. HAZARDS INFORMATIONHEALTH

Note: Hazardous exposures to ingredients can occur only when product is heated, oxidized or otherwise processed to create dust, vapor or fume.

INHALATION

May cause severe irritation of upper respiratory tract and lungs, perforated nasal septum or systemic poisoning with symptoms including: weight loss, nausea, diarrhea, weakness, loss of appetite, skin lesions, insomnia, uncoordinated body movements, abdominal pain, dizziness, dry throat, convulsions, stupor, bloody stools and possible coma.

INGESTION

May cause severe irritation of stomach lining or intestines, systemic poisoning with symptoms similar to inhalation, or arsenic poisoning. May result in chronic or acute exposure.

HAZARDS INFORMATION (CONTINUED)SKIN

May cause severe irritation, dermatitis or contact dermatitis.

EYES

May cause severe irritation or conjunctivitis.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED

Diseases of the liver, kindeys or nervous sytem.

POSSIBLE CHRONIC EFFECTS

May cause weakness, insomnia, metallic taste in mouth, anemia, constipation, headache, muscle and joint pain, neuromuscular dysfunction, paralysis, encephalopathy, pneumoconiosis, metal fume fever, liver or kidney abnormalities, damage to liver, kidneys or nervous system, increase in cancers of: skin, respiratory tract, throat, lungs, lymphocytic system and liver, and may cause adverse reproductive effects.

FIRST AID PROCEDURES

INHALATION	Remove from exposure area; gargle, wash nose and lips, contact physician.
INGESTION	Induce vomiting if conscious, gargle; wash nose and lips, give a demulcent, contact a physician.
SKIN	Wash thoroughly with brush, soap and water; flush with plenty of water, contact a physician.
EYE	Flush eyes with plenty of water for at least fifteen (15) minutes, contact a physician.

ADDITIONAL HEALTH DATA

All 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 precautions such as ventilation and respiratory protection covered in Section VII. Follow good personal hygiene to avoid inhalation and ingestion: wash hands, face, neck and arms thoroughly before eating, smoking or leaving the work area. 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.

This product is intended only for industrial use; it must be isolated from children and their environment.

HAZARDS INFORMATION (CONTINUED)PHYSICAL

Inorganic lead compound is not a combustible material, nor will it explode under conditions of normal use. (See V, REACTIVITY DATA).

For a fire which surrounds or involves this material:

EXTINGUISHING MEDIA

Use dry chemical or carbon dioxide (CO₂) extinguishers. Do not use water on molten metal.

SPECIAL FIRE FIGHTING PROCEDURES

Wear full body protective clothing and self-contained breathing apparatus with positive pressure and full facepiece.

UNUSUAL FIRE & EXPLOSION HAZARDS

Molten metal produces fume, vapor, and/or dust which may be toxic, and/or respiratory irritants; and reacts vigorously with oxidizing agents.

IV. PHYSICAL DATA

Boiling Point @ 760 MM Hg - Above 2516°F
 Specific Gravity (H₂O=1) - 9.6 - 11.3
 Appearance - Bluish gray metal
 Odor - No apparent odor

Melting Point - 486 to 680°F
 Solubility in Water - Negligible
 Vapor Density/Pressure - Not Applicable
 Evaporation Rate/% Vol - Not Applicable
 pH - Not Applicable

V. REACTIVITY DATA

Material is stable and will not polymerize.

MATERIALS TO AVOID

Strong oxidizers may liberate hydrogen gas. Halogens (chlorine, fluorine bromine) or their gases, halides or halogenates, potassium nitrate, permanganate or peroxides, and alkali nitrates with heat may cause a spontaneous combustion, violent reaction or explosion. Avoid strong acids, bases, nascent hydrogen and reducing agents.

NEVER combine alloys or drosses of calcium with alloys of arsenic or antimony. Drosses formed during melting may contain compounds which may release toxic vapors.

HAZARDOUS DECOMPOSITION PRODUCTS

High temperatures are likely to produce toxic metal fume, vapor or dust. Reducing conditions (contact with any strong acid or base), or the presence of nascent hydrogen may evolve highly toxic arsine gas (TLV 0.05 ppm).

VI. SPILL OR LEAK PROCEDURES

Dust should be vacuumed or wet-swept.

Dry dust should be handled using controls which minimize fugitive emissions and reentry of dust into the work area.

Do not use compressed air or dry-sweeping to clean-up.

Neutralizing Chemicals - Not applicable.

Waste Disposal - Dispose of material and wastes in accordance with local, state and federal regulations.

VII. SPECIAL PROTECTION INFORMATIONVentilation

Ventilation, designed using accepted engineering practices for lead contaminants as described by the American Conference of Governmental Industrial Hygienists, shall be provided in areas where exposures exceed permissible exposure limits as specified by local, state or federal regulations. Design and installation shall be in accordance with local, state and federal regulations.

Personal Protective Equipment For Lead

<u>Respiratory</u>	<u>Airborne Concentration</u>	<u>Required Respirator</u>
	30 ug/m ³ to 0.5 mg/m ³	Half-mask air-purifying respirator with high-efficiency filters.
	0.5+ to 2.5 mg/m ³	Full-face piece air-purifying respirator with high-efficiency filters.
	2.5+ to 50.0 mg/m ³	Full-facepiece powered air purifying respirator with high efficiency filters, or
	50.0+ to 100.0 mg/m ³	Full-facepiece (or hood or helmet) supplied air respirator operated in positive pressure mode.
	Over 100.0 mg/m ³ , or unknown.	Full-facepiece self-contained breathing apparatus operated in positive pressure mode.
<u>Eyes</u>	Use full face shield and/or vented cover goggles around molten metal.	
<u>Hands</u>	Wear gloves when necessary to handle.	
<u>Clothing</u>	Wear coveralls or other full-body covering during use. Launder properly in accordance with local, state and federal regulations after use.	

