



MATERIAL SAFETY DATA SHEET

LEAD POWDER

C.A.S. Number: 7439-92-1

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT/MATERIAL: PB-100

MANUFACTURER/DISTRIBUTOR: Atlantic Equipment Engineers
ADDRESS: 13 Foster Street, P.O. Box 181
Bergenfield, NJ 07621

TELEPHONE/FAX NUMBERS: (201) 384-5606 / (201) 387-0291

EMERGENCY CONTACT: CHEMTREC (800) 424-9300
(703) 527-3887 (Outside the USA)

PRODUCT IDENTIFIER: Lead powder
PRODUCT USE: Thread compound, shielding, ballast, friction products
CHEMICAL FAMILY: Lead
TECHNICAL NAME: High-purity lead

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS:

<u>COMPONENT</u>	<u>% BY WT</u>	<u>CAS NUMBER</u>	<u>PEL</u>	<u>TLV</u>
LEAD	99.90%	7439-92-1	0.5 mg/m ³	0.15 mg/m ³

SECTION 3 – HAZARDOUS IDENTIFICATION:

EMERGENCY OVERVIEW

Lead has not been found to be a human carcinogen by NTP. IARC lists lead as an animal carcinogen and probably carcinogenic to humans but having no human evidence.

Lead is on the SARA Title III Section 313 toxic chemicals list.

H.M.I.S.

HEALTH HAZARD: 3
FLAMMABILITY HAZARD: 0
REACTIVITY HAZARD: 0
MAXIMUM PERSONAL PROTECTION: 1

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POTENTIAL HEALTH EFFECTS

INHALATION: This is the most important route for worker exposure to lead. A significant portion of inhaled lead goes into the blood stream producing acute and chronic effects.

ACUTE: Headache, nausea, vomiting, seizures, coma and cardio respiratory arrest.

CHRONIC: Impaired blood making, reproductive, urinary systems. Potential injury to a developing fetus and possible side effects on reproduction. Early symptoms include fatigue, disturbance of sleep and constipation, followed by colic, anemia, neuritis, loss of appetite and tremors.

SKIN CONTACT: Lead has been reported to be only a mild skin irritant.

SKIN ABSORPTION: Absorption of inorganic lead through the skin is generally not of great significance.

EYE CONTACT: Studies have shown that eye contact with lead causes only mild irritation and minimal inflammatory reactions.

INGESTION: Absorption of lead from the gastrointestinal tract is not as efficient a route from the respiratory tract, but should be considered a source of exposure. Immediate symptoms such as colic and severe abdominal pain may be observed, as well as chronic symptoms cited above.

SECTION 4 – FIRST AID MEASURES:

EYES: Flush eyes immediately with large amounts of water, lifting the lower and upper lids occasionally. If irritation persists, consult a physician.

SKIN: Flush the contaminated skin and wash with soap and water. Change clothing daily. Wash commercially, with the wash water disposed of in accordance with local, state and federal regulations.

INHALATION: Move the exposed person to fresh air at once. Keep warm and at rest. If breathing has stopped, perform artificial respiration. Get emergency medical attention immediately.

INGESTION: If the person is conscious, give large amounts of water to drink and induce vomiting. Get medical attention as soon as possible.

NOTE TO PHYSICIAN:

Periodic evaluations of blood leads are widely used as an indicator of excessive lead absorption. Keep blood levels below the Biological Exposure Index (BEI) of 50 ug/100 ml. Other BEI's include lead in urine of 150 ug/g creatinine; zinc protoporphyrin in blood after one month exposure of 100 ug/100 ml in erythrocytes.

SECTION 5 – FIRE AND EXPLOSION DATA:

FLASH POINT: Not determined.

AUTOIGNITION TEMPERATURE: Not determined.

**FLAMMABLE LIMITS IN AIR,
% BY VOLUME:** **Lower:** Not determined.
Upper: Not determined.

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EXTINGUISHING MEDIA: Dry chemical, graphite, dolomite or sodium chloride.

SPECIAL FIRE FIGHTING PROCEDURES: Do not use water; use self-contained breathing gear and protective clothing.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS: US Bureau of Mines Report RI-6516 lists lead powders as weakly explosive materials. Not readily ignited by sparks. Ignition temperatures for clouds range from 710-800 °C (1310-1472 °F). For layers, the range is 210-460 °C (410-860 °F).

SECTION 6 – SPILL AND LEAK PROCEDURES:

Isolate the spill area, and keep unnecessary people away.

While wearing respiratory protection, collect the spilled dust using wet sweeping or vacuum methods so as not to create more dust.

Never remove dust by using compressed air, by shaking contaminated materials, or by dry sweeping.

Recycle or dispose of as waste. (See Section 11)

SECTION 7 – HANDLING AND STORAGE:

Store powder inside in a dry area, -18-38 °C (0-100 °F).

SECTION 8 – SPECIAL PROTECTION INFORMATION:

VENTILATION REQUIREMENTS: Provide adequate local exhaust to maintain employee time-weight average exposure below 50 ug/m³. Use principles in the ACGIH manual "Industrial Ventilation".

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY: While controls are instituted, follow OSHA 29 CFR 1920.132, 133 and 134. Use approved respirator as recommended in OSHA 29 CFR 1910.1025.

EYES: Safety glasses or vented goggles should be provided depending on the concentration. Do not permit contact lenses.

GLOVES: Minimize skin contact. Use gloves as appropriate against physical hazards.

OTHER: Prohibit eating and smoking in areas where lead compounds are handled. Nothing replaces good personal hygiene. Coveralls or other full-body clothing shall be worn and properly laundered after each use. Workers should wash hands, face, neck and arms before eating, smoking or drinking. Workers should bathe and change clothing before leaving work.

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SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES:

MELTING POINT:	327 °C (621 °F)
BOILING POINT:	1740 °C (3164 °F)
SPECIFIC GRAVITY (H ₂ O=1):	3.7 to 6.0
SOLUBILITY IN H ₂ O, % BY WT:	Not soluble
VAPOR PRESSURE:	1.77 mm Hg @ 1000 °C (1832 °F)
% VOLATILES BY WT:	Not volatile
VAPOR DENSITY (AIR=1):	Not volatile
EVAPORATION RATE:	Not volatile
PH:	Not applicable
APPEARANCE / ODOR:	Blue-gray powder; odorless

SECTION 10 – REACTIVITY INFORMATION:

Lead reacts vigorously with oxidizing materials and with some concentrated acids. It is very reactive with hydrogen peroxide.

SECTION 11 – ENVIRONMENTAL INFORMATION:

WASTE DISPOSAL METHOD: Recover and reprocess lead whenever possible. It may be dissolved in nitric acid, precipitated as the sulfide, and returned to the supplier for reprocessing. Follow all state and federal guidelines for disposal of lead in a secured landfill. Refer to EPA Regulation 40 CFR 260 and consult regional EPA for proper disposal methods. Lead may be prohibited without permission.

SECTION 12 – TRANSPORTATION INFORMATION:

PROPER SHIPPING NAME:	Environmentally Hazardous Substance, Solid, N.O.S. RQ (LEAD)
HAZARD CLASS:	60
SUB RISK:	None
IDENTIFICATION NUMBER:	UN 3077
PACKING GROUP:	III
RQ:	
HAZARDOUS CLASS LABEL:	9
PLACARDS:	NONE

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SECTION 13 – SPECIAL PRECAUTIONS:

Keep sparks, flames and other sources of ignition away. Toxic gases and vapors may be released in a fire involving lead.

When local exhaust ventilation is used to control lead exposure, measurements which demonstrate system effectiveness should be made every three months.

Women in the workplace are more likely to experience adverse effects than men because their blood-producing system is more lead sensitive. Women should be warned that exposure to lead poses a risk to unborn children.

Periodic evaluation of blood levels should be performed.

Do not reuse containers. Keep out of reach of children.

SECTION 14 – OTHER INFORMATION:

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All-Craft Wellman Products - Lead Markers

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