

# Safety Data Sheet



## 1: Identification

### 1.1: Product Identifier

Product Name: Pb

Product Number(s): 1PB-0009F

CAS Number: 7439-92-1

SDS Document Number: 000145

### 1.2: Recommended Uses and Restrictions

Recommended Uses

Manufacture of substances

Restrictions

Not for food or drug use.

### 1.3: Supplier Contact Information

APL Engineered Materials, Inc.

2401 N. Willow Rd.

Urbana, IL 61802

Phone: 217-367-1340

Fax: 217-367-9084

### 1.4: Emergency Phone Number

International: +01-813-248-0585

United States: 800-255-3924

## 2: Hazards Identification

### 2.1: Classifications

Acute Aquatic Toxicity - Category 1

Acute Toxicity, Oral - Category 4

Carcinogenicity - Category 2

Chronic Aquatic Toxicity - Category 1

Specific Target Organ Toxicity - Repeated Exposure - Category 2

Toxic to Reproduction - Category 2

### 2.2: GHS Label Elements

Pictograms



Signal Word: Warning

Hazard Statements

- H302: Harmful if swallowed.
- H351: Suspected of causing cancer.
- H361: Suspected of damaging fertility or the unborn child.
- H373: May cause damage to internal organs through prolonged or repeated exposure.
- H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statements

- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P260: Do not breathe dust.
- P264: Wash hands thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P273: Avoid release to the environment.
- P281: Use personal protective equipment as required.
- P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P308 + P313: IF EXPOSED or concerned: Get medical advice/attention.
- P330: Rinse mouth.
- P391: Collect spillage.
- P405: Store locked up.
- P501: Dispose of contents/container to licensed disposal facility.

2.3: Hazards Not Otherwise Classified or Not Covered by GHS

None.

2.4: Amount(s) of substances with unknown toxicity

None

**3: Composition/Information on Ingredients**

3.1: .Ingredient	.Weight%	.Formula	.CAS Number	.Mol Wt	.EC Number
Pb	100	Pb	7439-92-1	207.20	231-100-4

3.2: Other Hazardous components

none

3.3: Trade Secret Disclaimer

none

3.4: Synonyms

Lead

**4: First Aid Measures**

4.1: First Aid

General

Remove person from area of exposure and remove any contaminated clothing

Consult with physician and provide this Safety Data Sheet

In contact with eyes

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.

Seek medical attention if irritation develops or persists

In contact with skin

Wash thoroughly with soap and plenty of water. Remove all contaminated clothing for proper laundering. Seek medical attention if irritation develops or persists.

If swallowed

If conscious and alert, rinse mouth and drink 2-4 cupfuls of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical aid.

If inhaled

Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

#### 4.2: Most important symptoms and effects; acute and delayed

May damage the unborn child.

Harmful if swallowed.

May cause damage to organs through repeated or prolonged exposure.

Possible human carcinogen.

#### 4.3: Indication of any immediate medical attention and special treatment needed

If swallowed: Immediately call a POISON CENTER or doctor/ physician.

### 5: Fire Fighting Measures

#### 5.1: Fire extinguishing media

water or alcohol-resistant foam

carbon dioxide

dry chemical

#### 5.2: Specific hazards arising from the substance or mixture

lead oxides

#### 5.3: Special protective equipment and precautions for firefighters.

Wear self contained breathing apparatus for fire fighting if necessary

### 6: Accidental Release Measures

#### 6.1: Personal precautions, protective equipment, and emergency procedures.

Avoid breathing dust.

Ensure adequate ventilation.

Use personal protective equipment.

For personal protection see section 8.

Evacuate personnel to safe areas.

Avoid dust formation.

#### 6.2: Methods and materials for containment and cleaning up.

Keep in suitable, closed containers for disposal.

Sweep up and shovel.

#### 6.3: Environmental precautions

Do not let product enter drains.

#### 6.4: Disposal

See section 13.

Dispose of in accordance with local regulations.

## 7: Handling and Storage

### 7.1: Precautions for safe handling

See precautionary statements in section 2.2.

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

Avoid contact with skin and eyes.

### 7.2: Conditions for safe storage

Store under inert gas.

Store in a dry and well-ventilated place.

Keep container tightly closed.

Store away from moisture.

### 7.3: Incompatibilities

strong acids

## 8: Exposure Controls/Personal Protection

### 8.1: Control parameters

OSHA permissible exposure limit (PEL)

0.05 mg/m<sup>3</sup>

ACGIH threshold limit value (TLV)

0.05 mg/m<sup>3</sup>

NIOSH recommended exposure limit (REL)

0.05 mg/m<sup>3</sup>

### 8.2: Engineering controls

Use adequate ventilation to keep airborne concentrations low

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower

### 8.3: Personal protective equipment

Eyes

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166

Skin

Wear appropriate, chemical-resistant protective gloves to prevent skin exposure.

Clothing

Wear appropriate protective clothing to prevent skin exposure

Respirator

Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149.

Always use a NIOSH or European Standard EN 149 approved respirator when necessary

## 9: Physical and Chemical Properties

### 9.a: Appearance

State: Solid  
Form: Chunks  
Color: Silver to Gray

- 9.b: Odor: no data available
- 9.c: Odor threshold: no data available
- 9.d: pH: no data available
- 9.e: Melting point / freezing point: 327.4 °C (621.3 °F) - lit.
- 9.f: Initial boiling point and range: 1,740 °C (3,164 °F)  
- lit.
- 9.g: Flashpoint: no data available
- 9.h: Evaporation rate: no data available
- 9.i: Flammability (solid, gas): no data available
- 9.j: Upper/lower flammability or explosive limits: no data available
- 9.k: Vapor pressure: no data available
- 9.l: Vapor density: no data available
- 9.m: Relative density: no data available
- 9.n: Water Solubility: no data available
- 9.o: Partition coefficient: n-octanol/water: no data available
- 9.p: Auto-ignition temperature: no data available
- 9.q: Decomposition temperature: no data available
- 9.r: Viscosity: no data available

## 10: Stability and Reactivity

- 10.1: Reactivity
  - no data available
- 10.2: Chemical stability
  - Stable under recommended storage conditions.
- 10.3: Possibility of hazardous reactions
  - no data available
- 10.4: Conditions to avoid
  - exposure to water
  - In the event of fire: see section 5
- 10.5: Incompatible materials
  - See section 7.3.
- 10.6: Hazardous decomposition products
  - Other decomposition products - no data available
  - In the event of fire: see section 5.2

## 11: Toxicological Information

### 11.1: Toxicity data

Acute toxicity - Oral

no data available

Acute toxicity - Dermal

no data available

Acute toxicity - Inhalation

No data available.

Skin corrosion/irritation

no data available

Eye damage/irritation

No data available.

Respiratory irritation

No data available.

Germ cell mutagenicity

no data available

Reproductive toxicity

Suspected reproductive toxicant.

Specific organ toxicity - single exposure

No data available.

Specific organ toxicity - repeated exposure

May cause damage to organs through repeated or prolonged exposure.

Aspiration hazard

No data available.

Additional information

RTECS: OF7525000

ACGIH carcinogenicity

The ACGIH has identified a component of this product present at levels greater than or equal to 0.1% as a probable, possible or confirmed human carcinogen.

IARC carcinogenicity

Group 2B: Possibly carcinogenic to humans.

NTP carcinogenicity

The NTP has identified a component of this product present at levels greater than or equal to 0.1% as a probable, possible or confirmed human carcinogen.

OSHA carcinogenicity

OSHA regulated carcinogen.

### 11.2: Routes of exposure

skin

See section 2.2

ingestion

### 11.3: Symptoms of exposure

See section 4.2

### 11.4: Delayed and immediate effects of exposure

Known human carcinogen

May damage the central nervous system, blood and the digestive system repeated or prolonged exposure via ingestion or inhalation.

Exposure to lead inhibits the synthesis of hemoglobin and results in anemia. If left untreated, neuromuscular dysfunction, possible paralysis, and encephalopathy can result. Additional symptoms of overexposure include: joint and muscle pain, weakness of the extensor muscles (frequently the hand and wrist), headache, dizziness, abdominal pain, diarrhea, constipation, nausea, vomiting, blue line on the gums, insomnia, and metallic taste. High body levels produce increased cerebrospinal pressure, brain damage, and stupor leading to coma and often death

## 12: Ecological Information

### 12.1: Ecotoxicity

Toxicity to fish

LC50 - *Micropterus dolomieu* - 2.2 mg/l - 96.0 h

Toxicity to daphnia and other aquatic invertebrates

mortality LOEC - *Daphnia* - 0.17 mg/l - 24 h,

Toxicity to algae/bacteria

mortality EC50 - *Skeletonema costatum* - 7.94 mg/l - 10 d

### 12.2: Persistence and degradability

no data available

### 12.3: Bioaccumulative potential

*Oncorhynchus kisutch* - 2 Weeks - 150 µg/l - Bioconcentration factor (BCF): 12

### 12.4: Mobility in soil

no data available

### 12.5: Other effects

Very toxic to aquatic life with long lasting effects.

## 13: Disposal Considerations

### 13.1: Waste treatment methods

No data available

### 13.2: Safe handling

See section 7.1 .

### 13.3: Product disposal

Contact a licensed professional waste disposal service to dispose of this material.

### 13.4: Packaging disposal

Dispose of as unused product.

## 14: Transport Information

### 14.1: DOT(US)

UN Number: 3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Lead)

Packing Group: III  
Shipping Class(es): 9  
Marine Pollutant: No

#### 14.2: IMDG

UN Number: 3077  
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Lead)  
Packing Group: III  
Shipping Class(es): 9  
Marine Pollutant: No

#### 14.3: IATA

UN Number: 3077  
Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Lead)  
Packing Group: III  
Shipping Class(es): 9

#### 14.4: Special Shipping Precautions

None

### 15: Regulatory Information

#### 15.1: TSCA inventory

This material is listed on the TSCA inventory.

#### 15.2: SARA 302 components

This material is not subject to the reporting requirements of SARA Title III, Section 302.

#### 15.3: SARA 313 components

This material is subject to the reporting requirements of SARA Title III, Section 313.

#### 15.4: SARA 313/312 hazards

Chronic health hazard.

#### 15.5: Other information

Massachusetts Right To Know Components - This product does not contain materials listed on the Massachusetts Right to Know list

California Prop. 65 Components - This product does contain chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

New Jersey Right To Know Components -This product contains materials listed on the New Jersey Right to Know list

Pennsylvania Right To Know Components -This product contains materials listed on the Pennsylvania Right to Know list

### 16: Additional Information

#### 16.1: NFPA

Health: 1  
Fire: 0  
Reactivity: 0  
Special:



## 16.2: HMIS

Health: 1

Chronic: \*

Flammability: 0

Physical Hazard: 0

## 16.3: Disclaimers

The information herein is believed to be accurate and reliable as of the date compiled. However, APL Engineered Materials, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information on this data sheet or any use of the product based upon this information.

For industrial use only. Not for drug, household or other uses

## 16.4: References

Information contained on this SDS sheet was obtained from some or all of the following sources: American Conference of Governmental Industrial Hygienists (ACGIH), TLVs and BEIs; National Institute for Occupational Safety and Health (NIOSH), Pocket Guide to Chemical Hazards; European Chemicals Agency, <http://echa.europa.eu/>; The National Institute of Health, U.S National Library of Medicine, TOXNET, Toxicology Data Network; and the Registry of Toxic Effects of Chemical Substances (RTECS) database.

## 16.5: Version

Preparation Date: 22-May-2015

Revision Date: 10-May-2016

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