SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: Lead (II) Bromide
PRODUCT NUMBER: 2209
CAS NUMBER: 10031-22-8
SYNONYMS: Lead dibromide
MANUFACTURER: Prochem, Inc.
826 Roosevelt Road
Rockford, IL  61109
PHONE: 815-398-1788
FAX: 815-398-1810
TOLL FREE: 800-795-8788

IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram

Signal Word Danger

Hazard Statements

| H302+H332 | Harmful if swallowed or if inhaled. |
| H360     | May damage fertility or the unborn child. |
| H410     | Very toxic to aquatic life with long lasting effects. |

Precautionary Phrases

| P201     | Obtain special instructions before use. |
| P202     | Do not handle until all safety precautions have been read and understood. |
| P261     | Avoid breathing dust/fume/gas/mist/vapors/spray. |
| P264     | Wash skin thoroughly after handling. |
| P270     | Do not eat, drink, or smoke when using this product. |
| P271     | Use only outdoors or in a well-ventilated area. |
| P273     | Avoid release into the environment. |
| P281     | Use personal protective equipment as required. |
| P301+P312| IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. |
| P304+P340| IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |

HMIS CLASSIFICATION:

Health: 2  Chronic: *  Fire: 0  Reactivity Hazard: 1

NFPA RATING:

Health: 2  Flammability: 0  Reactivity Hazard: 0
SECTION 2          HAZARDS IDENTIFICATION (Cont.)

EYE CONTACT: May cause moderate irritation of the eyes.
SKIN CONTACT: May cause moderate irritation of the skin and dermatitis. Contact through a break in the skin can induce an allergic reaction.
INHALATION: Large dust exposure may cause encephalopathy, then seizures, coma, and cardiorespiratory distress.
INGESTION: Ingestion may lead to dizziness, abdominal cramps, vomiting, bloody diarrhea, metallic taste, weakness, and convulsions.
CHRONIC HEALTH EFFECTS: The chronic effect of lead poisoning include diarrhea, loss of appetite, muscle pain, headache, dizziness, anemia, brain damage, and reproductive disorders. The subject of chronic lead poisoning can not be adequately addressed in this document.

SECTION 3        COMPOSITION / INFORMATION ON INGREDIENTS

Formula: PbBr₂
Molecular Weight: 367.01

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS#</th>
<th>%</th>
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<tbody>
<tr>
<td>Lead (II) bromide</td>
<td>10031-22-8</td>
<td>100</td>
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SECTION 4          FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.
SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.
INHALATION: Remove to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases, seek immediate medical attention.
INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5          FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable
AUTO IGNITION TEMPERATURE: Not available
EXPLOSION LIMITS: Product does not present an explosion hazard.
EXTINGUISHING MEDIUM: Use fire fighting measures that suit the surrounding fire.
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Lead oxide and hydrogen bromide

SECTION 6        ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.
ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Spills can be mixed with vermiculite, swept up, and place in suitable container for proper disposal.

SECTION 7          HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation. Avoid formation of dusts and aerosols.
CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area.
SECTION 8  EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

<table>
<thead>
<tr>
<th>Component</th>
<th>Exposure Limits</th>
<th>Basis</th>
<th>Entity</th>
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<tr>
<td>Lead</td>
<td>0.05 mg/m³</td>
<td>TLV</td>
<td>ACGIH</td>
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<tr>
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<td>0.05 mg/m³</td>
<td>PEL</td>
<td>OSHA</td>
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<tr>
<td></td>
<td>10µg/100mL*</td>
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</table>

*Women of child bearing potential

TLV: Threshold Limit Value over 8 hours of work.

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Indices in Blood

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.

SKIN PROTECTION: Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9  PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: White powder

ODOR: None

MOLECULAR WEIGHT: 367.01

BOILING POINT: 892° C

MELTING POINT: 371° C

SPECIFIC GRAVITY: 6.66 gm/ml

SOLUBILITY: Slightly soluble

SECTION 10  STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Excess heat

INCOMPATIBILITY: Strong oxidizing agents

DECOMPOSITION PRODUCTS: Lead oxide and hydrogen bromide

SECTION 11  TOXICOLOGICAL DATA

ACUTE TOXICITY: Not available

CARCINOGENIC EFFECTS: Possible carcinogen to humans

MUTAGENIC EFFECTS: Not available

TETRATOGENIC EFFECTS: Not available

RTECS: Not available

Lead and lead compounds may cause abdominal pain, diarrhea, loss of appetite, metallic taste, nausea, vomiting, lassitude, insomnia, muscle weakness, joint and muscle pain, irritability, headache, and dizziness. Red blood cells may be damaged resulting in anemia. Gastritis and injury to the kidneys, liver, and central nervous system may all occur. Inorganic bromides may produce depression, emaciation and in severe cases, psychosis and mental deterioration. Bromoderma, a bromide rash, often occurs when bromide inhalation or administration is prolonged. This rash is usually found on the face and resembles acne and furunculosis.

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.
SECTION 12 ECOLOGICAL DATA

Do not allow product to reach ground water, watercourse, or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground. May cause long lasting and harmful effects to aquatic life. Very toxic for aquatic organisms.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

DOT: UN2291  IATA: UN2291
Lead compounds, soluble, n.o.s.  Lead compound, soluble, n.o.s.
(Lead (II) bromide)  (Lead (II) bromide)
CLASS 6.1  CLASS 6.1
PG III  PG III

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory
SARA 302/304: Not Listed
SARA 311/312: Acute Health Hazard, Chronic Health Hazard
SARA (TITLE 313): Lead (II) bromide
CALIFORNIA PROP. 65: Lead (II) bromide
MASSACHUSETTS RIGHT TO KNOW COMPONENTS: Lead (II) bromide
NEW JERSEY RIGHT TO KNOW COMPONENTS: Lead (II) bromide
PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Lead (II) bromide

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.
DATE PREPARED: 01/15
SDS DEPT.