Material Safety Data Sheet
Lead(II) Bromide, 98+%

MSDS# 95133

Section 1 - Chemical Product and Company Identification

MSDS Name:	Lead(II) Bromide, 98+%
Catalog Numbers:	AC198850000, AC198851000, AC198855000
Synonyms:	None
Company Identification:	Acros Organics BVBA Janssen Pharmaceuticalaan 3a 2440 Geel, Belgium
Company Identification: (USA)	Acros Organics One Reagent Lane Fair Lawn, NJ 07410
For information in the US, call:	800-ACROS-01
For information in Europe, call:	+32 14 57 52 11
Emergency Number, Europe:	+32 14 57 52 99
Emergency Number US:	201-796-7100
CHEMTREC Phone Number, US:	800-424-9300
CHEMTREC Phone Number, Europe:	703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#:	10031-22-8
Chemical Name:	Lead Bromide (PbBr2)
%:	98+%
EINECS#:	233-084-4

Hazard Symbols: T N

Risk Phrases: 61 20/22 33 50/53 62

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! May cause kidney damage. May cause central nervous system effects. May cause cardiac disturbances. May cause liver and kidney damage. Causes eye and skin irritation. Causes digestive and respiratory tract irritation. May cause reproductive and fetal effects. May cause cancer based on animal studies. May cause blood abnormalities. This product contains lead, a chemical known to the state of California to cause cancer. Harmful if inhaled or swallowed. Possible risk of harm to the unborn child. Target Organs: Blood, kidneys, central nervous system, liver, cardiovascular system, blood forming organs, reproductive system.

Potential Health Effects

Eye: May cause eye irritation. Causes eye irritation and possible injury.

Skin: May cause skin irritation. Causes skin irritation.

Harmful if swallowed. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause liver and kidney damage. May cause cardiac disturbances. Exposure may cause anemia and other blood abnormalities. Ingestion of lead compounds can produce symptoms of lead poisoning. Symptoms of lead poisoning or

Ingestion:	plumbism include weakness, weight loss, lassitude, insomnia, and hypotension. It also includes constipation, anorexia, abdominal discomfort and colic. Acute lead poisoning can cause muscle weakness, "lead line" on the gums, metallic taste, definite loss of appetite, insomnia, dizziness, high lead levels in blood and urine with shock, coma and death in extreme cases.
Inhalation:	Harmful if inhaled. Causes respiratory tract irritation. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. May cause effects similar to those described for ingestion. May cause anemia. May cause cardiac abnormalities.
Chronic:	May cause liver and kidney damage. May cause cancer in humans. Chronic exposure to lead may result in plumbism which is characterized by lead line in gum, headache, muscle weakness, mental changes. Chronic expsoure to lead may cause adverse effects on human reproduction, embryonic and fetal development and postnatal (e.g., mental) development.

Section 4 - First Aid Measures

Eyes:	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin:	Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
Ingestion:	Never give anything by mouth to an unconscious person. Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
Inhalation:	Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
Notes to Physician:	Treat symptomatically and supportively.
Antidote:	The use of Dimercaprol or BAL (British Anti-Lewisite) as a chelating agent should be determined by qualified medical personnel. The use of Calcium disodium EDTA as a chelating agent should be determined by qualified medical personnel. The use of d-Penicillamine as a chelating agent should be determined by qualified medical personnel.

Section 5 - Fire Fighting Measures

General Information:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Containers may explode when heated. Non-combustible, substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes. Runoff from fire control or dilution water may cause pollution.
Extinguishing Media:	Use agent most appropriate to extinguish fire. For small fires, use dry chemical, carbon dioxide, or water spray. For large fires, use water spray, fog or regular foam.
Autoignition Temperature:	Not applicable.
Flash Point:	Not applicable.
Explosion Limits: Lower:	Not available
Explosion Limits: Upper:	Not available
NFPA Rating:	health: 2; flammability: 0; instability: 0;

Section 6 - Accidental Release Measures

General Information:	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:	Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling:	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.
	Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated

Storage: area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Lead Bromide (PbBr2)	0.05 mg/m3 TWA (as Pb) (listed under Lead, inorganic compounds).	0.050 mg/m3 TWA (as Pb) (listed under Lead compounds).100 mg/m3 IDLH (as Pb) (listed under Lead compounds).	50 æg/m3 TWA (as Pb) (listed under Lead, inorganic compounds).50 æg/m3 TWA (as Pb); 30 æg/m3 Action Level (as Pb, Poison - see 29 CFR 1910.102 5) (listed under Lead, inorganic compounds).

OSHA Vacated PELs: Lead Bromide (PbBr2): None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

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 protective gloves and clothing to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder

Color: off-white - white

Odor: Not available

pH: Not available

Vapor Pressure: Not available

Vapor Density: Not available

Evaporation Rate: Not applicable.

Viscosity: Not applicable.

Boiling Point: 916 deg C (1,680.80°F)

Freezing/Melting Point: 373 deg C (703.40°F)

Decomposition Temperature: Not available

Solubility in water: Very slightly soluble in cold water.

Specific Gravity/Density: Not available.

Molecular Formula: PbBr2

Molecular Weight: 367.008

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Incompatible materials, dust generation, excess heat, strong oxidants.

Incompatibilities with Other

Materials	Not available
Hazardous Decomposition Products	Strong oxidants, hydrogen bromide, lead/lead oxides.
Hazardous Polymerization	Has not been reported.

Section 11 - Toxicological Information

RTECS#:	CAS# 10031-22-8: None listed
LD50/LC50:	RTECS: Not available.
Carcinogenicity:	Lead Bromide (PbBr2) - California: carcinogen, initial date 10/1/92 (Lead compounds). NTP: Suspect carcinogen (Lead compounds). IARC: Group 2A carcinogen (Lead, inorganic compounds).
Other:	The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: LEAD COMPOUNDS, SOLUBLE, N.O.S.
Hazard Class: 6.1
UN Number: UN2291
Packing Group: III
Canada TDG
Shipping Name: Not available
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T N

Risk Phrases:

R 61 May cause harm to the unborn child.

R 20/22 Harmful by inhalation and if swallowed.

R 33 Danger of cumulative effects.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 62 Possible risk of impaired fertility.

Safety Phrases:

S 53 Avoid exposure - obtain special instructions before use.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 10031-22-8: Not available

Canada

CAS# 10031-22-8 is listed on Canada's NDSL List

Canadian WHMIS Classifications: Not available

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 10031-22-8 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 10031-22-8 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 9/02/1997

Revision #9 Date 7/20/2009
