



SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

Version: 2022

Date Updated: February 11, 2022

SECTION 1. ----- PRODUCT AND COMPANY IDENTIFICATION -----

Product Name Lead (II) chloride
Product Code(s) LB0560
Recommended Use For Laboratory Research Use Only
Not for Human or Animal Drug Use

Supplier Bio Basic Inc.
Address 20 Konrad Crescent, Markham, Ontario,
Canada, L3R 8T4

Telephone (905) 474 4493
Fax (905) 474 5794
For Chemical Emergency Phone# (416) 995 9730

SECTION 2. ----- HAZARDS IDENTIFICATION -----

GHS Classification in accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 4), H332

Carcinogenicity (Category 2), H351

Reproductive toxicity (Category 1A), H360

Specific target organ toxicity - repeated exposure (Category 1), Central nervous system, Kidney, Blood, H372

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H302 + H332

Harmful if swallowed or if inhaled.

H351

Suspected of causing cancer.

H360

May damage fertility or the unborn child.

H372

Causes damage to organs (Central nervous system, Kidney, Blood) through prolonged or repeated exposure.

H410

Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P201

Obtain special instructions before use.

P202

Do not handle until all safety precautions have been read and understood.

P260

Do not breathe 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 to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS

- none

SECTION 3. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

Chemical Name	EC No.	CAS-No	Weight %
Lead (II) chloride	231-845-5	7758-95-4	<100

SECTION 4. ----- FIRST-AID MEASURES -----

General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5. ----- FIRE FIGHTING MEASURES -----

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Hydrogen chloride gas Lead oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7. ----- HANDLING AND STORAGE-----

Precautions for safe handling

Advice on safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Advice on protection against fire and explosion

Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated

SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----

Control parameters

Ingredients with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
lead dichloride	7758-95-4	TWA	0.05 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks		TWAEV	0.05 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

	Carcinogenic effect detected in animals. Results of studies relating to the carcinogenicity of these substances in animals are not necessarily applicable to humans.			
		TWA	0.05 mg/m3	Canada. British Columbia OEL
	IARC '2A' applies to substances deemed probably carcinogenic to humans on the basis of limited evidence of carcinogenicity in humans. Adverse reproductive effect			
		TWA	0.05 mg/m3	Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.
	Skin			

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected

according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----

Information on basic physical and chemical properties

- | | |
|---|---|
| a) Appearance | Form: powder
Color: beige |
| b) Odor | odorless |
| c) Odor Threshold | No data available |
| d) pH | No data available |
| e) Melting point/freezing point | Melting point/range: 501 °C (934 °F) - lit. |
| f) Initial boiling point and boiling range | 950 °C 1742 °F - lit. |
| g) Flash point | No data available |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | No data available |
| j) Upper/lower flammability or explosive limits | No data available |
| k) Vapor pressure | 1 hPa at 547 °C (1017 °F) |
| l) Vapor density | No data available |
| m) Relative density | No data available |
| n) Water solubility | 10,000 g/l at 19.9 °C (67.8 °F) - OECD Test Guideline 105 |
| o) Partition coefficient: octanol/water | No data available n- |
| p) Autoignition temperature | No data available |
| q) Decomposition temperature | No data available |
| r) Viscosity | No data available |
| s) Explosive properties | No data available |
| t) Oxidizing properties | No data available |

Other safety information

No data available

SECTION 10. -----STABILITY AND REACTIVITY -----

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong oxidizing agents, Strong acids

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

Acute toxicity

LD50 Oral - Rat - > 1,947 mg/kg

Remarks: (ECHA)

LC50 Inhalation - Rat - male and female - 4 h - > 5.05 mg/l (OECD Test Guideline 403)

LD50 Dermal - Rat - male and female - > 2,000 mg/kg (OECD Test Guideline 402)

No data available

Skin corrosion/irritation

Skin - reconstructed human epidermis (RhE) Result:

No skin irritation

(EPISKIN Human Skin Model Test)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation (OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test - Guinea pig Result:

Not a skin sensitizer. (OECD Test Guideline 406)

Germ cell mutagenicity

No data available

Carcinogenicity

Suspected human carcinogens

ACGIH: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Reproductive toxicity

Known human reproductive toxicant

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure. - Central nervous system,

Kidney, Blood

Aspiration hazard

No data available

Additional Information

RTECS: OF9450000

Lead salts have been reported to cross the placenta and to induce embryo- and fetto-mortality. They also have teratogenic effect in some animal species. No teratogenic effects have been reported with exposure to organometallic lead compounds. Adverse effects of lead on human reproduction, embryonic and fetal development, and postnatal (e.g., mental) development have been reported. Excessive exposure can affect blood, nervous, and digestive systems. The synthesis of hemoglobin is inhibited 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.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence

SECTION 12. ----- ECOLOGICAL INFORMATION -----

Toxicity

Toxicity to fish static test LC50 - Oncorhynchus mykiss (rainbow trout) - 0.00117 mg/l - 96 h
Remarks: (ECHA)

Toxicity to algae ErC50 - Pseudokirchneriella subcapitata (green algae) - 20.5 µg/l - 72 h
(OECD Test Guideline 201)

Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects. Discharge into the environment must be avoided.

SECTION 13. ----- DISPOSAL CONSIDERATIONS -----

Product

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14. ----- TRANSPORT INFORMATION -----

TDG

UN number: 2291 Class: 6.1 Packing group: III
Proper shipping name: LEAD COMPOUND, SOLUBLE, N.O.S. (lead dichloride) Labels:
6.1
ERG Code: 151 Marine
pollutant: no

IMDG

UN number: 2291 Class: 6.1 Packing group: III EMS-No: F-A, S-A Proper shipping name: LEAD
COMPOUND, SOLUBLE, N.O.S. (lead dichloride)
Marine pollutant : yes

IATA

UN number: 2291 Class: 6.1 Packing group: III
Proper shipping name: Lead compound, soluble, n.o.s. (lead dichloride)

SECTION 15. ----- REGULATORY INFORMATION -----

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

SECTION 16. ----- OTHER INFORMATION -----

Further information: no limited for paper copy, just for internal uses.
For research use only. Not intended for human or animal diagnostic or therapeutic uses.

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

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End of SDS