A MATERIAL SAFETY DATA SHEET

LEAD(II)IODIDE

1.1 Product Identifiers:

Product Name : Lead(II) iodide
CAS No : 10101-63-0

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Supplier: Infinium Pharmachem Pvt. Ltd. (AN ISO 9001:2008 CERTIFIED CO.)
38, G.I.D.C, Sojitra
Dist: ANAND
Gujarat, India

Tel : 0091-2697-234987
Fax : 0091-2697-234987
Email : info@infiniumpharmachem.com

Synonyms : Lead diiodide; Lead diiodide (PbI2); Lead iodide; Lead(II) iodide; Plumbousiodide

CAS No. : 10101-63-0
Molecular Weight : 461.01 g/mol
Chemical Formula : I2Pb
3.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 4), H332
Reproductive toxicity (Category 1A), H360
Specific target organ toxicity - repeated exposure (Category 2), H373
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 1), H410

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

Classification according to EU Directives 67/548/EEC or 1999/45/EC

R61
R62
Xn  Harmful  R20/22
     R33
N   Dangerous for the  R50/53
     Environment

For the full text of the R-phrases mentioned in this Section, see Section 16.

3.2 Label elements

Pictogram

Signal word

DANGER

H302 + H332  Harmful if swallowed or if inhaled
H360  May damage fertility or the unborn child.
H373  May cause damage to organs through prolonged or repeated exposure.
H410  Very toxic to aquatic life with long lasting effects.
Precautionary statement(s)

P201 Obtain special instructions before use.
P273 Avoid release to the environment.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P501 Dispose of contents/ container to an approved waste disposal plant.

Supplemental Hazard

Statements none

Restricted to professional users.

3.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact
Wash off with soap and plenty of water.

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.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5.1 Extinguishing Media:

**Suitable extinguishing media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Hydrogen iodide, Lead oxides

5.3 Advice for firefighters

Wear self contained breathing apparatus for fighting if necessary.

5.4 Further Information

No data available.

6.1 Personal precautions, protective equipment and emergency procedures

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

6.2 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.

6.3 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.
6.4 Reference to other sections

For disposal see section 13.

7.1 Precautions for safe Handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.
Provide appropriate exhaust ventilation at places where dust is formed.
For precautions see section 2.2.

7.2 Conditions for safe Storage, including any incompatibilities

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

Light sensitive.
Storage class (TRGS 510): Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

7.3 Specific end uses
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8.1 Control parameters

Components with workplace control Parameters.

8.2 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
Safety glasses with side-shields conforming to EN166 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**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.

### 9.1 Information on Basic physical & chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Appearance Form</td>
<td>powder</td>
</tr>
<tr>
<td>a) Appearance Colour</td>
<td>black</td>
</tr>
<tr>
<td>b) Odor</td>
<td>no data available</td>
</tr>
<tr>
<td>c) Odor Threshold</td>
<td>no data available</td>
</tr>
<tr>
<td>d) pH</td>
<td>no data available</td>
</tr>
<tr>
<td>e) Melting point/freezing Point</td>
<td>Melting point/range: 402 °C - lit.</td>
</tr>
<tr>
<td>f) Initial boiling point and</td>
<td>954 °C - lit.</td>
</tr>
<tr>
<td>Boiling range</td>
<td></td>
</tr>
<tr>
<td>g) Flash point</td>
<td>not applicable</td>
</tr>
<tr>
<td>h) Evaporation rate</td>
<td>no data available</td>
</tr>
<tr>
<td>i) Flammability (solid, gas)</td>
<td>no data available</td>
</tr>
<tr>
<td>j) Upper/lower</td>
<td>no data available</td>
</tr>
<tr>
<td>Flammability or explosive limits</td>
<td></td>
</tr>
</tbody>
</table>
k) Vapor pressure 1 hPa at 479 °C
l) Vapor density no data available
m) Relative density 6.16 g/mL at 25 °C
n) Water solubility no data available
o) Partition coefficient: n-octanol / water no data available
p) Auto ignition 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

9.2 Other safety Information

no data available

10.1 Reactivity

no data available

10.2 Chemical stability

no data available.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Heat.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5
11.1 Information on toxicological effects

**Acute toxicity**
no data available

**Skin corrosion/irritation**
no data available.

**Serious eye damage/eye irritation**
no data available

**Respiratory or skin sensitization**
May cause allergic skin reaction.

**Germ cell mutagenicity**
no data available

**Carcinogenicity**
Possible human carcinogen
IARC: 2A - Group 2A: Probably carcinogenic to humans (Lead diiodide)

**Reproductive toxicity**
May cause congenital malformation in the fetus.
Known human reproductive toxicant

**Specific target organ toxicity - single exposure**
no data available

**Specific target organ toxicity - repeated exposure**
May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard**
no data available

**Additional Information**
RTECS: Not available
anemia, Prolonged exposure to iodides may produce iodism in sensitive individuals. Symptoms of exposure include: skin rash, running nose, headache and irritation of the mucous membrane. For severe cases the skin may show pimples, boils, hives, blisters and black and blue spots. Iodides are readily diffused across the placenta. Neonatal deaths from respiratory distress secondary to goiter have been reported. Iodides have been known to cause drug-induced fevers, which are usually of short duration. Lead salts have been reported to cross the placenta and to induce embryo- and feto- 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.

12.1 Persistence and degradability

12.1 Toxicity
no data available

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.
13.1 Waste treatment methods

Product

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

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: - 2291  IMDG: - 2291  IATA: -2291

14.2 UN proper shipping name

ADR/RID: LEAD COMPOUND, SOLUBLE, N.O.S. (Lead diiodide)
IMDG: LEAD COMPOUND, SOLUBLE, N.O.S. (Lead diiodide)
IATA: Lead compound, soluble, n.o.s. (Lead diiodide)

14.3 Transport hazard class (es)

ADR/RID: - 6.1  IMDG: - 6.1  IATA: - 6.1

14.4 Packaging group

ADR/RID: -III  IMDG: - III  IATA: -III

14.5 Environmental hazards

ADR/RID: no  IMDG Marine pollutant: no  IATA: no

14.6 Special precautions for user

no data available
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox. Acute toxicity
Aquatic Acute Acute aquatic toxicity
Aquatic Chronic Chronic aquatic toxicity
H302 Harmful if swallowed.
H302 + H332 Harmful if swallowed or if inhaled
H332 Harmful if inhaled.
H360 May damage fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.

Full text of R-phrases referred to under sections 2 and 3

N Dangerous for the environment
T Toxic
R20/22 Harmful by inhalation and if swallowed.
R33 Danger of cumulative effects.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R61 May cause harm to the unborn child.
R62 Possible risk of impaired fertility.
Repr.Cat.1 Toxic to Reproduction Category 1
Repr.Cat.3 Toxic to Reproduction Category 3
MSDS Creation Date: 01-01-2015
Revision #1 Date: 31-12-2017

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