**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

1.1. **Product identifier**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product form</td>
<td>Substance</td>
</tr>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Substance name</td>
<td>LEAD(II) ACETATE, trihydrate</td>
</tr>
<tr>
<td>Product code</td>
<td>PBL6190</td>
</tr>
<tr>
<td>Formula</td>
<td>C4H6O4Pb∙3H2O</td>
</tr>
<tr>
<td>Synonyms</td>
<td>LEAD DIACETATE, ACETIC ACID, LEAD(2+) SALT, TRIHYDRATE</td>
</tr>
<tr>
<td>Chemical family</td>
<td>METAL COMPOUND</td>
</tr>
</tbody>
</table>

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

1.2.1. **Relevant identified uses**

Use of the substance/mixture: Chemical intermediate

1.2.2. **Uses advised against**

No additional information available

1.3. **Details of the supplier of the safety data sheet**

**GELEST, INC.**
11 East Steel Road
Morrisville, PA 19067
USA
T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST
info@gelest.com - www.gelest.com

**GELEST INC.**
Fritz-Klatte-Strasse 8
65933 Frankfurt
Germany
T +49 (0) 69 3535106-500 - F +49 (0) 69 3535106-501 - (M-F): 8:00 AM - 4:00 PM
info@gelestde.com - www.gelestde.com

1.4. **Emergency telephone number**

Emergency number: CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

**SECTION 2: Hazards identification**

2.1. **Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

- Acute toxicity (oral), Category 3: H301
- Skin corrosion/irritation, Category 2: H315
- Serious eye damage/eye irritation, Category 2: H319
- Specific target organ toxicity — Single exposure, Category 3: H335
- Respiratory tract irritation

Full text of H statements: see section 16

**Adverse physicochemical, human health and environmental effects**

No additional information available

2.2. **Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

- Hazard pictograms (CLP): [Image]
- Signal word (CLP): Danger
LEAD(II) ACETATE, trihydrate
Safety Data Sheet

Hazard statements (CLP) : H301 - Toxic if swallowed.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.

Precautionary statements (CLP) : P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P261 - Avoid breathing dust.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P330 - Rinse mouth.
P301+P310 - IF SWALLOWED: Immediately call a doctor.

2.3. Other hazards
No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Substance type</th>
<th>Mono-constituent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>LEAD(II) ACETATE, trihydrate</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>6080-56-4</td>
</tr>
<tr>
<td>%</td>
<td>Classification according to Regulation (EC) No. 1272/2008 [CLP]</td>
</tr>
<tr>
<td>Lead (II) acetate, trihydrate</td>
<td>(CAS-No.) 6080-56-4 (EC-No.) 612-031-2</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

3.2. Mixtures
Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Wash with plenty of water/…. Get medical advice/attention.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER/doctor.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : May cause respiratory irritation.
Symptoms/effects after skin contact : Causes skin irritation.
Symptoms/effects after eye contact : Causes serious eye irritation.
Symptoms/effects after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

Chronic symptoms : Exposure to dust or fumes of lead compounds is known to cause toxic effects. Lead is a cumulative poison.

4.3. Indication of any immediate medical attention and special treatment needed

Physician note: Diagnostic mobilization of lead with calcium EDTA may be useful in questionable cases.

SECTION 5: Firefighting measures

5.1. Extinguishing media


Unsuitable extinguishing media : Do not use straight streams.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.
5.3. Advice for firefighters

Firefighting instructions: Exercise caution when fighting any chemical fire. Use water spray to cool exposed surfaces.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid contact with skin and eyes. Do not breathe dust.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment: Wear protective equipment as described in Section 8.

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up: Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Avoid contact with skin and eyes. Do not breathe dust. Avoid dust formation. Use only outdoors or in a well-ventilated area.

Hygiene measures: Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed. Store locked up.

Storage area: Store in a well-ventilated place.

7.3. Specific end use(s)

No additional information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Lead (II) acetate, trihydrate (6080-56-4)</th>
<th>Italy - Portugal - USA ACGIH</th>
<th>ACGIH TWA (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0.05 mg/m³ as lead</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls:

Handle in an enclosing hood with exhaust ventilation.

Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:

Neoprene or nitrile rubber gloves

Eye protection:

Chemical goggles. Contact lenses should not be worn

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified dust and mist (orange cartridge) respirator.
LEAD(II) ACETATE, trihydrate
Safety Data Sheet

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties
Physical state : Solid
Appearance : Crystals.
Molecular mass : 379.33 g/mol
Colour : White to off-white.
Odour : Slight. acetic acid.
Odour threshold : No data available
Refractive index : No additional information available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : 75 °C with dehydration
Freezing point : No data available
Boiling point : 280 °C decomposes
Flash point : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapour pressure : No data available
Relative vapour density at 20 °C : No data available
Relative density : 2.55
Solubility : Slightly. Soluble in water.
Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : No data available

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity
10.1. Reactivity
No additional information available
10.2. Chemical stability
Stable.
10.3. Possibility of hazardous reactions
Material decomposes slowly in contact with air by reaction with water and carbon dioxide.
10.4. Conditions to avoid
No additional information available
10.5. Incompatible materials
No additional information available
10.6. Hazardous decomposition products
Organic acid vapors. Lead oxide fumes.

SECTION 11: Toxicological information
11.1. Information on toxicological effects
Acute toxicity : Toxic if swallowed.

**LEAD(II) ACETATE, trihydrate (6080-56-4)**
ATE CLP (oral) 100 mg/kg bodyweight

**Lead (II) acetate, trihydrate (6080-56-4)**
LD50 oral rat 4665 mg/kg
LD50 intraperitoneal rat 200 mg/kg
ATE CLP (oral) 100 mg/kg bodyweight

Skin corrosion/irritation : Causes skin irritation.
LEAD(II) ACETATE, trihydrate
Safety Data Sheet

Serious eye damage/irritation: Causes serious eye irritation.
Respiratory or skin sensitisation: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: None of the components in this product at concentrations >0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

<table>
<thead>
<tr>
<th>Lead (II) acetate, trihydrate (6080-56-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC group</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
</tr>
<tr>
<td>STOT-single exposure</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
</tr>
<tr>
<td>Aspiration hazard</td>
</tr>
<tr>
<td>Symptoms/effects after inhalation</td>
</tr>
<tr>
<td>Symptoms/effects after skin contact</td>
</tr>
<tr>
<td>Symptoms/effects after eye contact</td>
</tr>
<tr>
<td>Symptoms/effects after ingestion</td>
</tr>
<tr>
<td>Chronic symptoms</td>
</tr>
<tr>
<td>Reason for classification</td>
</tr>
</tbody>
</table>

SECTION 12: Ecological information

12.1. Toxicity
Acute aquatic toxicity: Not classified
Chronic aquatic toxicity: Not classified

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

12.5. Results of PBT and vPvB assessment
No additional information available

12.6. Other adverse effects
Other adverse effects: This substance may be hazardous to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Sewage disposal recommendations: Do not dispose of waste into sewer.
Product/Packaging disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.
Ecology - waste materials: Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number
In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number
UN-No. (ADR) : 1616
UN-No. (IMDG) : 1616
UN-No. (IATA) : 1616
UN-No. (ADN) : 1616
UN-No. (RID) : 1616

14.2. UN proper shipping name
Proper Shipping Name (ADR) : LEAD ACETATE
Proper Shipping Name (IMDG) : LEAD ACETATE
### LEAD(II) ACETATE, trihydrate
Safety Data Sheet

| Proper Shipping Name (IATA) | Lead acetate |
| Proper Shipping Name (ADN) | LEAD ACETATE |
| Proper Shipping Name (RID) | LEAD ACETATE |
| Transport document description (ADR) | UN 1616 LEAD ACETATE, 6.1, III, (E) |
| Transport document description (IMDG) | UN 1616 LEAD ACETATE, 6.1, III, MARINE POLLUTANT |
| Transport document description (IATA) | UN 1616 Lead acetate, 6.1, III |
| Transport document description (ADN) | UN 1616 LEAD ACETATE, 6.1, III |
| Transport document description (RID) | UN 1616 LEAD ACETATE, 6.1, III |

#### 14.3. Transport hazard class(es)

**ADR**
- Transport hazard class(es) (ADR): 6.1
- Danger labels (ADR): 6.1

**IMDG**
- Transport hazard class(es) (IMDG): 6.1
- Danger labels (IMDG): 6.1

**IATA**
- Transport hazard class(es) (IATA): 6.1
- Hazard labels (IATA): 6.1

**ADN**
- Transport hazard class(es) (ADN): 6.1
- Danger labels (ADN): 6.1

**RID**
- Transport hazard class(es) (RID): 6.1
- Danger labels (RID): 6.1

#### 14.4. Packing group

- Packing group (ADR): III
LEAD(II) ACETATE, trihydrate
Safety Data Sheet

Packing group (IMDG) : III
Packing group (IATA) : III
Packing group (ADN) : III
Packing group (RID) : III

14.5. Environmental hazards
Dangerous for the environment : No
Marine pollutant : Yes (IMDG only)
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport
  Classification code (ADR) : T5
  Limited quantities (ADR) : 5kg
  Excepted quantities (ADR) : E1
  Packing instructions (ADR) : P002, IBC08, LP02, R001
  Special packing provisions (ADR) : B3
  Mixed packing provisions (ADR) : MP10
  Portable tank and bulk container instructions (ADR) : T1
  Portable tank and bulk container special provisions (ADR) : TP33
  Tank code (ADR) : SGAH, L4BH
  Tank special provisions (ADR) : TU15, TE19
  Vehicle for tank carriage : AT
  Transport category (ADR) : 2
  Special provisions for carriage - Bulk (ADR) : VC1, VC2, AP7
  Special provisions for carriage - Loading, unloading and handling (ADR) : CV13, CV28
  Special provisions for carriage - Operation (ADR) : S9
  Hazard identification number (Kemler No.) : 60
  Orange plates : 60
  Tunnel restriction code (ADR) : E
  EAC code : 2Z

- Transport by sea
  Limited quantities (IMDG) : 5 kg
  Excepted quantities (IMDG) : E1
  Packing instructions (IMDG) : P002, LP02
  IBC packing instructions (IMDG) : IBC08
  IBC special provisions (IMDG) : B3
  Tank instructions (IMDG) : T1
  Tank special provisions (IMDG) : TP33
  EmS-No. (Fire) : F-A
  EmS-No. (Spillage) : S-A
  Stowage category (IMDG) : A

- Air transport
  PCA Excepted quantities (IATA) : E1
  PCA Limited quantities (IATA) : Y645
  PCA limited quantity max net quantity (IATA) : 10kg
  PCA packing instructions (IATA) : 670
  PCA max net quantity (IATA) : 100kg
  CAO packing instructions (IATA) : 677
  CAO max net quantity (IATA) : 200kg
  ERG code (IATA) : 6L
LEAD(II) ACETATE, trihydrate
Safety Data Sheet

- **Inland waterway transport**
  - Classification code (ADN): T5
  - Special provisions (ADN): 802
  - Limited quantities (ADN): 5 kg
  - Excepted quantities (ADN): E1
  - Equipment required (ADN): PP, EP
  - Number of blue cones/lights (ADN): 0

- **Rail transport**
  - Classification code (RID): T5
  - Limited quantities (RID): 5kg
  - Excepted quantities (RID): E1
  - Packing instructions (RID): P002, IBC08, LP02, R001
  - Special packing provisions (RID): B3
  - Mixed packing provisions (RID): MP10
  - Portable tank and bulk container instructions (RID): T1
  - Portable tank and bulk container special provisions (RID): TP33
  - Tank codes for RID tanks (RID): SGAH, L4BH
  - Special provisions for RID tanks (RID): TU15
  - Transport category (RID): 2
  - Special provisions for carriage – Bulk (RID): VC1, VC2, AP7
  - Special provisions for carriage - Loading, unloading and handling (RID): CW13, CW28, CW31
  - Colis express (express parcels) (RID): CE11
  - Hazard identification number (RID): 60

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**
Not applicable

**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**15.1.1. EU-Regulations**

No REACH Annex XVII restrictions

LEAD(II) ACETATE, trihydrate is not on the REACH Candidate List

LEAD(II) ACETATE, trihydrate is not on the REACH Annex XIV List

LEAD(II) ACETATE, trihydrate is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.


**15.1.2. National regulations**

**Germany**

Reference to AwSV

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV

: Water hazard class (WGK) 3, Highly hazardous to water (KBwS-Beschluss; ID No. 36)

: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

**Netherlands**

SZW-lijst van kankerverwekkende stoffen

SZW-lijst van mutagene stoffen

NIET-elimatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding

NIET-elimatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid

NIET-elimatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling

: The substance is not listed

**Denmark**

Danish National Regulations

: Young people below the age of 18 years are not allowed to use the product
LEAD(II) ACETATE, trihydrate  
Safety Data Sheet

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

| Abbreviations and acronyms: | ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor |

Other information

Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H301 | Toxic if swallowed. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |

SDS EU (REACH Annex II) - Custom

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

© 2019 Gelest Inc. Morrisville, PA 19067