SAFETY DATA SHEET

1. Identification

Product identifier: LEAD ACETATE TRIHYDRATE

Other means of identification
Product No.: 2271, 5165

Recommended use and restriction on use
Recommended use: Not available.
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer
Company Name: Avantor Performance Materials, Inc.
Address: 3477 Corporate Parkway, Suite 200
Center Valley, PA 18034
Telephone: Customer Service: 855-282-6867
Fax:
Contact Person: Environmental Health & Safety
e-mail: info@avantormaterials.com

Emergency telephone number:
24 Hour Emergency: 908-859-2151
Chemtrec: 800-424-9300

2. Hazard(s) identification

Hazard classification

Health hazards
Acute toxicity (Oral) Category 4
Acute toxicity (Inhalation - dust and mist) Category 4
Serious eye damage/eye irritation Category 2A
Germ cell mutagenicity Category 2
Carcinogenicity Category 1B
Toxic to reproduction Category 1A
Specific target organ toxicity - single exposure Category 1
Specific target organ toxicity - repeated exposure Category 1

Environmental hazards
Acute hazards to the aquatic environment Category 1
Chronic hazards to the aquatic environment Category 1

Label elements
Hazard symbol:
Signal word: Danger

Hazard statement: Harmful if swallowed. Harmful if inhaled. Causes serious eye irritation. Suspected of causing genetic defects. Causes damage to organs. Very toxic to aquatic life with long lasting effects. May cause cancer.

Precautionary statement

Prevention: Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid release to the environment.

Response: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Collect spillage.

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Chemical identity</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>Content in percent (%)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAD ACETATE (HYDRATED FORM)</td>
<td></td>
<td>6080-56-4</td>
<td>100%</td>
</tr>
</tbody>
</table>

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

General information: Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.

Ingestion: Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn’t get into the lungs.

Inhalation: Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration.
5. Fire-fighting measures

General fire hazards: In case of fire and/or explosion do not breathe fumes.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical: Fire may produce irritating, corrosive and/or toxic gases.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Keep unauthorized personnel away. Use personal protective equipment. See Section 8 of the MSDS for Personal Protective Equipment. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Methods and material for containment and cleaning up: Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures: Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Inform authorities if large amounts are involved.

Environmental precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage

Precautions for safe handling: Use personal protective equipment as required. Do not breathe the mist or vapor. Do not taste or swallow. Do not eat, drink or smoke when using the product. Use only with adequate ventilation. Wash hands thoroughly after handling. See Section 8 of the MSDS for Personal Protective Equipment. Avoid contact with eyes. Avoid contact with skin. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Conditions for safe storage, including any incompatibilities:
Store locked up. Keep in a cool, well-ventilated place. Store in a dry place.

8. Exposure controls/personal protection

Control parameters

<table>
<thead>
<tr>
<th>Chemical identity</th>
<th>Type</th>
<th>Exposure Limit values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAD ACETATE (HYDRATED FORM) - as Pb</td>
<td>TWA</td>
<td>0.05 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (2011)</td>
</tr>
<tr>
<td>LEAD ACETATE (HYDRATED FORM)</td>
<td>TWA</td>
<td>0.05 mg/m³</td>
<td>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) (02 2006)</td>
</tr>
<tr>
<td></td>
<td>OSHA_AC T</td>
<td>0.03 mg/m³</td>
<td>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) (02 2006)</td>
</tr>
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<td></td>
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<td>LEAD ACETATE (HYDRATED FORM) - as Pb</td>
<td>TWA</td>
<td>0.05 mg/m³</td>
<td>US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)</td>
</tr>
</tbody>
</table>

Biological limit values

<table>
<thead>
<tr>
<th>Chemical identity</th>
<th>Exposure Limit values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAD ACETATE (HYDRATED FORM) (Lead: Sampling time: Not critical.)</td>
<td>300 µg/l (Blood)</td>
<td>ACGIH BEL (2011)</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

No data available.

Individual protection measures, such as personal protective equipment

General information: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.

Eye/face protection: Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection: Chemical resistant gloves

Other: Wear suitable protective clothing.

Respiratory protection: In case of inadequate ventilation use suitable respirator.
Hygiene measures: Provide eyewash station and safety shower. Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not eat, drink or smoke when using the product. Wash contaminated clothing before reuse.

9. Physical and chemical properties

Appearance
- Physical state: Solid
- Form: Crystals or powder.
- Color: White
- Odor: Slight acetic acid odor
- Odor threshold: No data available.
- pH: 5.5 - 6.5 % solution
- Melting point/freezing point: 75 °C
- Initial boiling point and boiling range: 100 °C Decomposes
- Flash Point: Not applicable
- Evaporation rate: No data available.
- Flammability (solid, gas): No data available.

Upper/lower limit on flammability or explosive limits
- Flammability limit - upper (%): No data available.
- Flammability limit - lower (%): No data available.
- Explosive limit - upper (%): No data available.
- Explosive limit - lower (%): No data available.

Vapor pressure: No data available.
Vapor density: No data available.
Relative density: 2.55 (20 °C)

Solubility(ies)
- Solubility in water: Soluble
- Solubility (other): No data available.

Partition coefficient (n-octanol/water): No data available.
Auto-ignition temperature: No data available.
Decomposition temperature: No data available.
Viscosity: No data available.

Other information
- Molecular weight: 379.33 g/mol (C2H4O2.3/2H2O.1/2Pb)

10. Stability and reactivity

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Material is stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerization does not occur.

Conditions to avoid: Excessive heat. Contact with air. Contact with incompatible materials.


11. Toxicological information

Information on likely routes of exposure

**Ingestion:** Harmful if swallowed.

**Inhalation:** Harmful if inhaled.

**Skin contact:** Causes skin irritation.

**Eye contact:** Causes serious eye irritation.

Information on toxicological effects

**Acute toxicity (list all possible routes of exposure)**

**Oral**
- Product: No data available.

**Dermal**
- Product: No data available.

**Inhalation**
- Product: No data available.

**Repeated dose toxicity**
- Product: No data available.

**Skin corrosion/irritation**
- Product: Causes skin irritation.

**Serious eye damage/eye irritation**
- Product: Causes serious eye irritation.

**Respiratory or skin sensitization**
- Product: Not a skin sensitizer.

**Carcinogenicity**
- Product: May cause cancer.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

LEAD ACETATE (HYDRATED FORM) Overall evaluation: 2A. Probably carcinogenic to humans. Overall evaluation: 3. Not classifiable as to carcinogenicity to humans.

**US. National Toxicology Program (NTP) Report on Carcinogens:**

LEAD ACETATE (HYDRATED FORM) Reasonably Anticipated to be a Human Carcinogen.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

**Germ cell mutagenicity**

**In vitro**
- Product: Suspected of causing genetic defects.

**In vivo**
- Product: Suspected of causing genetic defects.

**Reproductive toxicity**
Product: May damage fertility or the unborn child.

Specific target organ toxicity - single exposure
Product: Blood, Central nervous system., Respiratory tract irritation.

Specific target organ toxicity - repeated exposure
Product: Blood, Brain., Respiratory tract irritation., Lung, Central nervous system.

Aspiration hazard
Product: Not classified

Other effects: None known.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic invertebrates
Product: No data available.

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product: No data available.

Persistence and degradability

Biodegradation
Product: There are no data on the degradability of this product.

BOD/COD ratio
Product: No data available.

Bioaccumulative potential

Bioconcentration factor (BCF)
Product: No data available on bioaccumulation.

Partition coefficient n-octanol / water (log Kow)
Product: No data available.

Mobility in soil: The product is water soluble and may spread in water systems.

Other adverse effects: Very toxic to aquatic life with long lasting effects.

13. Disposal considerations
Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated packaging: Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT
UN number: UN 1616
UN proper shipping name: Lead acetate
Transport hazard class(es): 6.1
Label(s): 6.1
Packing group: III
Marine Pollutant: Yes

IMDG
UN number: UN 1616
UN proper shipping name: LEAD ACETATE
Transport hazard class(es): 6.1
Label(s): 6.1
EmS No.: F-A, S-A
Packing group: III
Marine Pollutant: Yes

IATA
UN number: UN 1616
Proper Shipping Name: Lead acetate
Transport hazard class(es): 6.1
Label(s): 6.1
Marine Pollutant: No
Packing group: III

15. Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):
LEAD ACETATE (HYDRATED) Reportable quantity: 10 lbs.
FORM

Superfund amendments and reauthorization act of 1986 (SARA)

Hazard categories

Acute (Immediate) Chronic (Delayed) Fire Reactive Pressure Generating

SARA 302 Extremely hazardous substance
None present or none present in regulated quantities.
SARA 304 Emergency release notification

Chemical identity | RQ
---|---
LEAD ACETATE | 10 lbs.
(HYDRATED FORM)

SARA 311/312 Hazardous chemical

<table>
<thead>
<tr>
<th>Chemical identity</th>
<th>Threshold Planning Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAD ACETATE</td>
<td>500 lbs</td>
</tr>
</tbody>
</table>
(HYDRATED FORM)

SARA 313 (TRI reporting)

<table>
<thead>
<tr>
<th>Chemical identity</th>
<th>Reporting threshold for other users</th>
<th>Reporting threshold for manufacturing and processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAD ACETATE</td>
<td>100 lbs</td>
<td>100 lbs</td>
</tr>
</tbody>
</table>
(HYDRATED FORM)

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

LEAD ACETATE (HYDRATED FORM) Reportable quantity: 10 lbs.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
None present or none present in regulated quantities.

US state regulations

US. California Proposition 65
LEAD ACETATE Carcinogenic.
(HYDRATED FORM)
LEAD ACETATE Carcinogenic.
(HYDRATED FORM)
LEAD ACETATE Male reproductive toxin.
(HYDRATED FORM)
LEAD ACETATE Female reproductive toxin.
(HYDRATED FORM)
LEAD ACETATE Developmental toxin.
(HYDRATED FORM)

US. New Jersey Worker and Community Right-to-Know Act
LEAD ACETATE (HYDRATED FORM) Listed

US. Massachusetts RTK - Substance List
LEAD ACETATE Listed
(HYDRATED FORM)

US. Pennsylvania RTK - Hazardous Substances
LEAD ACETATE Listed
(HYDRATED FORM)

US. Rhode Island RTK
LEAD ACETATE Listed
(HYDRATED FORM)
Inventory Status:

- Australia AICS: On or in compliance with the inventory
- Canada DSL Inventory List: On or in compliance with the inventory
- EINECS, ELINCS or NLP: Not in compliance with the inventory
- Japan (ENCS) List: Not in compliance with the inventory
- China Inv. Existing Chemical Substances: On or in compliance with the inventory
- Korea Existing Chemicals Inv. (KECI): Not in compliance with the inventory
- Canada NDSL Inventory: Not in compliance with the inventory
- Philippines PICCS: On or in compliance with the inventory
- US TSCA Inventory: On or in compliance with the inventory
- New Zealand Inventory of Chemicals: On or in compliance with the inventory
- Japan ISHL Listing: Not in compliance with the inventory
- Japan Pharmacopoeia Listing: Not in compliance with the inventory

16. Other information, including date of preparation or last revision

NFPA Hazard ID

![Hazard rating diagram]

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

- Issue date: 08-28-2014
- Revision date: No data available.
- Version #: 1.0
- Further information: No data available.
Disclaimer:

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