

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: Lead Standard Solution (0.1 per cent Pb) R
EP Standard Solution

Product Number: 4302

Other Identifying Product Numbers: 4302-16, 4302-8

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company: Ricca Chemical Company
Address: 448 West Fork Drive

Arlington, TX 76012 USA

Telephone: 888-467-4222

1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA) 800-424-9300
CHEMTREC (International) 1+ 703-527-3887

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

Hazard Class	Category	Hazard Statements:	Precautionary Statements:
Carcinogenicity	Category 1	H350	P201, P202, P280, P308+P313, P405, P501
Reproductive Toxicity	Category 1	H360	P201, P202, P280, P308+P313, P405, P501

2.2. GHS Label Elements

Pictograms:



Safety Data Sheet

Signal Word: **Danger**

Hazard Statements:

Hazard Number	Hazard Statement
H350	May cause cancer.
H360	May damage fertility or the unborn child.

Precautionary Statements:

Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves and eye protection.
P308+P313	IF exposed or concerned: Get medical attention.
P405	Store locked up.
P501	Dispose of contents in accordance with local, state, federal and international regulations.

2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Water	H ₂ O	18.01 g/mol	7732-18-5	99.84
Lead Nitrate	Pb(NO ₃) ₂	331.20 g/mol	10099-74-8	0.16

SECTION 4: First-Aid Measures

4.1. General First Aid Information

Eye Contact: May cause slight irritation.

Inhalation: Not expected to require first aid. If necessary, remove to fresh air.

Skin Contact: May cause slight irritation.

Ingestion: Dilute immediately with water or milk. Induce vomiting. Call a physician.

Safety Data Sheet

4.2. Most Important Symptoms and Effects, Acute and Delayed

May cause cancer. May damage fertility or the unborn child. Very low levels of hazardous ingredients. Hazards are minimal at these low concentrations. May irritate eyes and skin. Wash areas of contact with water. Ingestion may cause nausea. If ingested, give large quantity of water and call a physician. EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause slight irritation. CHRONIC EFFECTS / CARCINOGENICITY: Lead accumulates in bone and teeth on prolonged or repeated exposure.

4.3. Medical Attention or Special Treatment Needed

Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Immediately flush with plenty of water for at least 15 minutes. Remove any contaminated clothing. Wash with soap and water, then flush again with water. Call a physician if irritation develops. Dilute immediately with water or milk. Induce vomiting. Call a physician.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Use any means suitable for extinguishing surrounding fire.

5.2. Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard.

5.3. Special Protective Equipment for Firefighters

Use protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

6.2. Cleanup and Containment Methods and Materials

Absorb with suitable inert material (vermiculite, dry sand, etc) and place in a chemical waste container for proper disposal. Do not flush to sewer. Dispose of in accordance with local regulations.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

Safety Data Sheet

SECTION 8: Exposure Controls / Personal Protection

8.1 Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Lead Nitrate (10099-74-8)	PEL	USA	"30 µg/m ³ Action Level (See 29 CFR 1910.1025, as Pb); 50 µg/m ³ TWA (as Pb)" As Lead, inorganic compounds [RR-00538-9]	U.S. - OSHA - Specifically Regulated Chemicals with PELs
Lead Nitrate (10099-74-8)	TWA	USA	"50 µg/m ³ TWA (as Pb)" As Lead, inorganic compounds [RR-00538-9]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Lead Nitrate (10099-74-8)	TLV-TWA	USA	"0.05 mg/m ³ TWA (as Pb)" As Lead inorganic compounds [RR-00538-9]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Lead Nitrate (10099-74-8)	PEL	USA	30 µg/m ³ Action Level (See 29 CFR 1910.1025, as Pb); 50 µg/m ³ TWA (as Pb)	U.S. - OSHA - Specifically Regulated Chemicals with PELs
Lead Nitrate (10099-74-8)	TLV-TWA	USA	0.05 mg/m ³ TWA (as Pb)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Lead Nitrate (10099-74-8)	TWA	USA	50 µg/m ³ TWA (as Pb)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)

8.2. Exposure Controls

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Wear protective gloves and eye protection. Chemical resistant gloves.

Eye Protection: Wear protective gloves and eye protection. Safety glasses or goggles.

8.3. Personal Protective Equipment

Wear protective gloves and eye protection. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

Safety Data Sheet

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Appearance: Colorless liquid

Physical State: Liquid

Odor: Data not available.

Odor Threshold: Data not available.

pH: Data not available.

Melting/Freezing Point: 0.0°C

Initial Boiling Point/Range: 100°C - 100°C

Flash Point: Data not available.

Evaporation Rate: Data not available.

Flammability: Data not available.

Flammability/Explosive Limits: Data not available.

Vapor Pressure: Data not available.

Vapor Density: Data not available.

Relative Density: 1.02

Solubility: Miscible

Partition Coefficient: Data not available.

Auto-Ignition Temperature: Data not available.

Decomposition Temperature: Data not available.

Viscosity: Data not available.

Explosive Properties: Data not available.

Oxidizing Properties: Data not available.

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Hydrogen Peroxide, Ammonium Thiocyanate, powdered Carbon

10.4. Hazardous Decomposition Products

Will not occur.



Safety Data Sheet

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Not applicable.

Acute Toxicity - Dermal Exposure:

Not applicable.

Acute Toxicity - Inhalation Exposure:

Not applicable.

Acute Toxicity - Other Information:

LD50, Intraperitoneal, Rat: (Lead Nitrate) 270 mg/kg, details of toxic effects not reported other than lethal dose value.

Skin Corrosion and Irritation:

Not applicable.

Serious Eye Damage and Irritation:

Not applicable.

Respiratory Sensitization:

Not applicable.

Skin Sensitization:

Not applicable.

Germ Cell Mutagenicity:

Not applicable.

Carcinogenicity:

May cause cancer. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Reproductive Toxicity:

May damage fertility or the unborn child. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific Target Organ Toxicity from Single Exposure:

Not applicable.

Specific Target Organ Toxicity from Repeated Exposure:

Not applicable.

Aspiration Hazard:

Not applicable.

Additional Toxicology Information:

Data not available.

Safety Data Sheet

SECTION 12: Ecological Information

12.1. Ecotoxicity

Not applicable.

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in Soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.

SECTION 14: Transportation Information

14.1. Transportation by Land-Department of Transportation (DOT, United States of America)

Not regulated according to DOT Regulations.

Safety Data Sheet

14.2. Transportation by Air - International Air Transport Association (IATA)

Not regulated according to IATA Dangerous Goods Regulations.

14.3 Transportation of Dangerous Goods (TDG, Canada)

Not regulated according to TDG Regulations.

SECTION 15: Regulatory Information

15.1. Occupational Safety and Health Administration (OSHA) Hazards

Lead Nitrate (CAS # 10099-74-8): "30 µg/m³ Action Level (See 29 CFR 1910.1025, as Pb)

Lead Nitrate (CAS # 10099-74-8): 30 µg/m³ Action Level (See 29 CFR 1910.1025, as Pb)

Lead Nitrate (CAS # 10099-74-8): 50 µg/m³ TWA (See 29 CFR 1910.1025, as Pb)

Lead Nitrate (CAS # 10099-74-8): 50 µg/m³ TWA (See 29 CFR 1910.1025, as Pb)" As Lead, inorganic compounds [RR-00538-9]

15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Not listed.

15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Lead Nitrate (CAS # 10099-74-8): "10 lb final RQ

Lead Nitrate (CAS # 10099-74-8): 10 lb final RQ

Lead Nitrate (CAS # 10099-74-8): 4.54 kg final RQ

Lead Nitrate (CAS # 10099-74-8): 4.54 kg final RQ" As Lead nitrate [10099-74-8]

Safety Data Sheet

15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Lead Nitrate (CAS # 10099-74-8):

"1.0 % de minimis concentration (reportable only when in aqueous solution, listed under Chemical Category N511)" As Nitrate compounds, water dissociable [RR-03804-0]

Lead Nitrate (CAS # 10099-74-8):

"not eligible for the de minimis exemption" As Lead compounds [RR-00630-4]

Lead Nitrate (CAS # 10099-74-8): "100 lb RT" As Lead compounds [RR-00630-4]

Lead Nitrate (CAS # 10099-74-8): "not eligible for the de minimis exemption, listed under Chemical Category N420" As Inorganic lead compounds [RR-00538-9]

Lead Nitrate (CAS # 10099-74-8): 1.0 % de minimis concentration (reportable only when in aqueous solution, listed under Chemical Category N511)

Lead Nitrate (CAS # 10099-74-8): 100 lb RT

Lead Nitrate (CAS # 10099-74-8): not eligible for the de minimis exemption

Lead Nitrate (CAS # 10099-74-8): not eligible for the de minimis exemption, listed under Chemical Category N420

15.5. Massachusetts Right-to-Know Substance List

Lead Nitrate (CAS # 10099-74-8): "Present" As Lead nitrate [10099-74-8]

Lead Nitrate (CAS # 10099-74-8): Present

15.6. Pennsylvania Right-to-Know Hazardous Substances

Lead Nitrate (CAS # 10099-74-8): "Environmental hazard" As Lead compounds [RR-00630-4]

Lead Nitrate (CAS # 10099-74-8): "Environmental hazard" As Nitric acid, lead(2+) salt [10099-74-8]

Lead Nitrate (CAS # 10099-74-8): Environmental hazard

Water (CAS # 7732-18-5): "Present" As Ethyl alcohol and water [RR-00802-6]

Water (CAS # 7732-18-5): Present



Safety Data Sheet

15.7. New Jersey Worker and Community Right-to-Know Components

Lead Nitrate (CAS # 10099-74-8):

"SN 3722 500 lb TPQ (water dissociable, Category Code N511)" As Nitrate compounds [RR-01770-9]

Lead Nitrate (CAS # 10099-74-8): "carcinogen"

Lead Nitrate (CAS # 10099-74-8): "carcinogen" As Lead compounds [RR-00630-4]

Lead Nitrate (CAS # 10099-74-8): "sn 1108" As Lead nitrate [10099-74-8]

Lead Nitrate (CAS # 10099-74-8): "SN 2266 500 lb TPQ (Category Code N420. Includes any unique chemical substance that contains the named metal as part of that chemical structure)" As Lead compounds [RR-00630-4]

Lead Nitrate (CAS # 10099-74-8): "sn 2266" As Lead compounds [RR-00630-4]

Lead Nitrate (CAS # 10099-74-8): "SN 3722 500 lb TPQ (water dissociable, Category Code N511)" As Nitrate compounds [RR-01770-9]

Lead Nitrate (CAS # 10099-74-8): "sn 3722" As Nitrate compounds [RR-01770-9]

Lead Nitrate (CAS # 10099-74-8): carcinogen

Lead Nitrate (CAS # 10099-74-8): sn 1108

Lead Nitrate (CAS # 10099-74-8): sn 2266

Lead Nitrate (CAS # 10099-74-8): SN 2266 500 lb TPQ (Category Code N420. Includes any unique chemical substance that contains the named metal as part of that chemical structure)

Lead Nitrate (CAS # 10099-74-8): sn 3722

Lead Nitrate (CAS # 10099-74-8): SN 3722 500 lb TPQ (water dissociable, Category Code N511)

Lead Nitrate (CAS # 10099-74-8): teratogen

Lead Nitrate (CAS # 10099-74-8): teratogen" As Lead nitrate [10099-74-8]

15.8. California Proposition 65

Lead Nitrate (CAS # 10099-74-8): "carcinogen, 10/1/1992" As Lead compounds [RR-00630-4]

Lead Nitrate (CAS # 10099-74-8): carcinogen, 10/1/1992

15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Lead Nitrate (CAS # 10099-74-8): "Present" As Lead nitrate [10099-74-8] (DSL)

Lead Nitrate (CAS # 10099-74-8): Present (DSL)

Water (CAS # 7732-18-5): "Present" As Water [7732-18-5] (DSL)

Water (CAS # 7732-18-5): Present (DSL)

15.10. United States of America Toxic Substances Control Act (TSCA) List

All components of this solution are listed as active on the TSCA Inventory or are mixtures (hydrates) of active items listed on the TSCA Inventory.

Lead Nitrate (CAS # 10099-74-8): "Present (ACTIVE)" As Nitric acid, lead(2+) salt (2:1) [10099-74-8]

Lead Nitrate (CAS # 10099-74-8): Present (ACTIVE)

Water (CAS # 7732-18-5): "Present [XU] (ACTIVE)" As Water [7732-18-5]

Water (CAS # 7732-18-5): Present [XU] (ACTIVE)

Safety Data Sheet

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Lead Nitrate (CAS # 10099-74-8): "233-245-9" As Lead dinitrate [10099-74-8]

Lead Nitrate (CAS # 10099-74-8): 233-245-9

Water (CAS # 7732-18-5): "231-791-2" As Water [7732-18-5]

Water (CAS # 7732-18-5): 231-791-2

SECTION 16: Other Information

16.1. Full Text of Hazard Statements and Precautionary Statements

May cause cancer. May damage fertility or the unborn child.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection.

IF exposed or concerned: Get medical attention.

Store locked up.

Dispose of contents in accordance with local, state, federal and international regulations.

16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable.

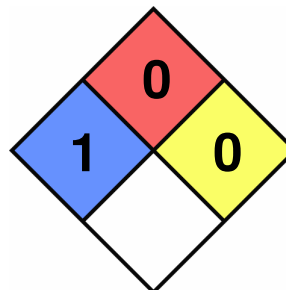
Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable.

Health Hazards Not Otherwise Classified (HHNOC): Not Applicable.

Biohazardous Infectious Materials Hazard Class: Not Applicable.

16.3. National Fire Protection Association (NFPA) Rating

Health:	1
Flammability:	0
Reactivity:	0
Special Hazard:	



Safety Data Sheet

16.4. Document Revision

Last Revision Date: 2025-04-06

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.