

SAFETY DATA SHEET

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

1.1 Product identifiers

Product name	Lead nitrate
CAS number	10099-74-8
Synonyms	Nitric acid, lead(2+) salt; plumbous nitrate

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

Identified uses Laboratory chemicals.

1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Oxidizing solids	Category 3
Acute oral toxicity	Category 4
Acute inhalation Toxicity - Dusts and Mists	Category 4
Serious Eye Damage/Eye Irritation	Category 1
Carcinogenicity	Category 1B
Reproductive Toxicity	Category 1A
Specific target organ toxicity - (single exposure)	Category 3

Target Organs - Central nervous system (CNS)
Specific target organ toxicity - (repeated exposure) Category 2
Target Organs - Kidney, Liver, Blood.

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	May intensify fire; oxidizer. Harmful if swallowed. Causes serious eye damage. Harmful if inhaled. May cause drowsiness or dizziness. May cause cancer. May damage the unborn child. Suspected of damaging fertility. May cause damage to organs through prolonged or repeated exposure.
Precautionary statements	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Do not breathe dust/fumes/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep/Store away from clothing/other combustible materials. Take any precaution to avoid mixing with combustibles.
Response	IF exposed or concerned: Get medical attention/advice.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Eyes	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
Ingestion	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
Fire	In case of fire: Use CO2, dry chemical, or foam for extinction.
Storage	Store locked up. Store in a well-ventilated place. Keep container tightly closed.
Disposal	Dispose of contents/container to an approved waste disposal plant.

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

Very toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Lead nitrate	-	10099-74-8	>95%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.
In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.
In case of eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
If swallowed	Do not induce vomiting. Call a physician or Poison Control Center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Causes eye burns.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Unsuitable extinguishing media No information available.

5.2 Specific hazards arising from the substance or mixture

Oxidizer: Contact with combustible/organic material may cause fire. Thermal decomposition can lead to release of irritating gases and vapors. May ignite combustibles (wood, paper, oil, clothing, etc). Do not allow run-off from fire fighting to enter drains or water courses. Hazardous combustion products: Nitrogen oxides, lead oxides.

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

5.4 Further information

Flash Point No information available

Autoignition Temperature No information available

Explosion limits

Upper No data available

Lower No data available

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

NFPA

Health	Flammability	Instability	Physical hazards
2	0	2	OX

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid dust formation.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material on contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. Should not be released into the environment. See Section 12 for additional ecological information. Avoid release to the environment. Collect spillage.

6.3 Methods and materials for containment and cleaning up

Provide adequate ventilation. Keep combustibles (wood, paper, oil, etc) away from spilled material. Sweep up or vacuum up spillage and collect to suitable container for disposal. Avoid dust formation. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Sweep up and shovel into suitable containers for disposal.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Use only under a chemical fume hood. Wear personal protective equipment. Keep away from clothing and other combustible materials. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Do not breathe dust.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials.

Incompatibilities

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

No information available.

US. ACGIH Threshold Limit Values

Component	Type	Value
Lead nitrate	TWA	0.05 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Lead nitrate	IDLH	100 mg/m ³
	TWA	0.050 mg/m ³

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Control of environmental exposure

No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	3 - 4 20% aq.sol.
Melting Point/Range	470 °C / 878 °F
Boiling Point/Range	No information available
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	
Upper	No data available.
Lower	No data available.
Vapor Pressure	No information available
Vapor Density	No information available
Density	4.53
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	N2O6Pb
Molecular Weight	331.2
VOC Content(%)	No information available
Oxidizing properties	Oxidizer

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Reactive Hazard: Yes.

10.2 Chemical stability

Oxidizer: Contact with combustible/organic material may cause fire.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

Avoid dust formation. Incompatible products. Excess heat. Combustible material.

10.5 Incompatible materials

Strong reducing agents, organic materials, powdered metals, combustible material.

10.6 Hazardous decomposition products

Nitrogen oxides, lead oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Lead nitrate	93 mg/kg (rat)	-	-

Skin corrosion/irritation

No information available.

Serious eye damage/eye irritation

Risk of serious damage to eyes.

Respiratory or skin sensitization

No information available.

Germ cell mutagenicity

Mutagenic effects have occurred in humans.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Lead nitrate	10099-74-8	Group 2A	Not listed	A3	X	Not listed

Specific target organ toxicity - single exposure

Central nervous system (CNS).

Specific target organ toxicity - repeated exposure

Kidney, Liver, Blood.

Reproductive toxicity

Experiments have shown reproductive toxicity effects on laboratory animals.

Chronic effects

No information available.

11.2 Additional Information

No information available.

SECTION 12: Ecological information**12.1 Toxicity**

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

Product		Species	Test Results
Lead nitrate	LC50	Oncorhynchus mykiss	1.5 mg/l 96h
	LC50	Cyprinus carpio	0.4 - 1.3 mg/l 96h
	EC50	Daphnia magna	0.5 - 2 mg/l 48h

12.2 Persistence and degradability

Based on information available. May persist.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

Will likely be mobile in the environment due to its water solubility.

12.5 Results of PBT and vPvB assessment

No information available

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1 Waste Disposal Methods**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN-No	UN1469
Proper Shipping Name	LEAD NITRATE
Hazard Class	5.1
Packing Group	II

IMDG

UN-No	UN1469
Proper Shipping Name	LEAD NITRATE
Hazard Class	5.1
Packing Group	II

IATA

UN-No	UN1469
Proper Shipping Name	LEAD NITRATE
Hazard Class	5.1
Packing Group	II

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Listed, 10 lb.

SARA 304 Emergency release notification

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Listed, 30 µg/m³ Action Level, 50 µg/m³ TWA.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Listed, Acute Health Hazard, Chronic Health Hazard, Reactive Hazard.

SARA 313 (TRI reporting)

Listed, Weight: >95%, Threshold Values %: 1.0, 0.1.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Listed.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not listed.

Safe Drinking Water Act

Listed, Hazardous Substances, Reportable Quantities: 10 lb. Toxic Pollutants.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not listed

US state regulations

US. Massachusetts RTK - Substance List

Listed.

US. New Jersey Worker and Community Right-to-Know Act

Listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Listed

California Proposition 65

Listed, Cancer/Developmental.

SECTION 16: Other information

Issue date: 07/26/2012

Revision 1: 08/22/2024

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet 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.