

SAFETY DATA SHEET

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

1.1 Product identifiers

Product name	Lead Sulfide
CAS number	1314-87-0
Synonyms	Lead Sulphide, Lead (II) Sulfide

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)

Acute Oral Toxicity - (Category 4)
Acute Inhalation Toxicity - (Category 4)
Reproductive Toxicity - (Category 1A)
Specific Target Organ Toxicity, Repeated Exposure - (Category 2)
Short-term (acute) aquatic hazard (Category 1)
Long-term (chronic) aquatic hazard (Category 1)

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	Harmful if swallowed Harmful if inhaled May damage fertility or the unborn child May cause damage to organs through prolonged or repeated exposure Very toxic to aquatic life with long lasting effects
Precautionary statements	If medical advice is needed, have product container or label at hand Keep out of reach of children Read label before use Use only outdoors or in a well-ventilated area Avoid release to the environment Use personal protective equipment as required Obtain special instructions before use Do not handle until all safety precautions have been read and understood Do not breathe dust/fume/gas/mist/vapour/spray Wash skin thoroughly after handling Do not eat, drink, or smoke when using this product IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing IF exposed or concerned: Get medical advice/attention Rinse mouth Collect spillage Store locked up Dispose of contents and container to an approved waste disposal plant

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

None identified.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Lead Sulfide	PbS	1314-87-0	98-100%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Loosen clothing as necessary and position individual in a comfortable position. Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Immediately get medical assistance.
In case of skin contact	Wash hands and exposed skin with soap and plenty of water. Get medical assistance.
In case of eye contact	Protect unexposed eye. Rinse or flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing. Immediately get medical assistance.
If swallowed	Rinse mouth thoroughly. Do not induce vomiting. Never give anything by mouth an unconscious person. Dilute mouth with water or milk after rinsing. Immediately get medical assistance.

4.2 Most important symptoms and effects, both acute and delayed

Irritation, headache, nausea, shortness of breathe. Refer Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically. The use of Dimercaprol or BAL (British AntiLewisite), d-Penicillamine, Calcium disodium EDTA as a chelating agent should be determine by qualified medical personnel.

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

Unsuitable extinguishing media No information available.

5.2 Specific hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors.

5.3 Special protective equipment and precautions for firefighters

Wear protective eyeware, gloves, and clothing. Refer to Section 8. Avoid inhaling gases, fumer, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing. Avoid generating dust.

5.4 Further information

Flash Point No information available.

Autoignition Temperature No information available.

Explosion limits

Upper No information available.

Lower No information available.

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA

Health	Flammability	Instability	Physical hazards
2	1	0	0

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Ensure that air-handling systems are operational.

6.2 Environmental precautions

Should not be released into environment. Prevent from reaching drains, sewer, or waterway.

6.3 Methods and materials for containment and cleaning up

Wear protective eyewear, gloves, and clothing. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Sweep up and containerize for disposal. Avoid generating dust. Always obey local regulations. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Keep in suitable closed containers for disposal. Pick up and arrange disposal without creating dust.

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

Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Wash hands after handling. Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid generating dust. Avoid ingestion and inhalation.

Hygiene measures

Wash hands before breaks and at end of work. Avoid contact with skin, eyes, and clothing. Before wearing wash contaminated clothing. Perform routine housekeeping to prevent dust generation.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store in a cool location. Keep away from food and beverages. Protect from freezing and physical damage. Provide ventilation for containers. Keep container tightly sealed.

Incompatibilities

Store away from incompatible materials. Keep from contact with combustible materials. Store away from oxidizing materials.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

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

Component	Type	Value
No information available.	No information available.	No information available.

US. ACGIH Threshold Limit Values

Component	Type	Value
Lead Sulfide	TWA	0.05 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Lead Sulfide	TWA	0.05 mg/m ³
	IDLH	100 mg/m ³

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilations or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protective equipment

Eye/face protection

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). Safety glasses or goggles are appropriate eye protection.

Skin protection

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

Body Protection

Protective clothing.

Respiratory protection

Not required under normal conditions of use. 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. When necessary use NIOSH approved breathing equipment.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	Silver
Odor	Odorless
Odor Threshold	No information available.
pH	No information available.
Melting Point/Range	1113.9 °C / 2047 °F
Boiling Point/Range	1281.1 °C / 2337.98 °F
Evaporation Rate	Not applicable.
Flammability (solid)	No information available.
Flammability or explosive limit	
Upper	No information available.
Lower	No information available.
Vapor Pressure	1 mm Hg @ 852 °C
Vapor Density	Not applicable.
Density	No information available.
Solubility	No information available.
Partition coefficient; n-octanol/water	No information available.
Autoignition Temp	No information available.
Decomposition Temp	No information available.
Viscosity	Not applicable.
Molecular Formula	PbS

Molecular Weight 239.26
VOC Content(%) No information available.
Oxidizing properties No information available.

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Nonreactive under normal conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

Incompatible materials. Dust generation. Combustible materials.

10.5 Incompatible materials

Strong oxidizing agents, Iodine monochloride, Hydrogen peroxide, Active metals, Sodium.

10.6 Hazardous decomposition products

Sulphur 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 Sulfide	No information available.	No information available.	No information available.

Skin corrosion/irritation

No information available.

Serious eye damage/eye irritation

No information available.

Respiratory or skin sensitization

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Lead sulfide	1314-87-0	Group 2A	RAHC	A3	Listed	Not listed

Specific target organ toxicity - single exposure

None known.

Specific target organ toxicity - repeated exposure

Central Nervous System (CNS) Blood Kidney

Reproductive toxicity

Possible risk of congenital malformation in the fetus. Known human reproductive toxicant. Lead has caused fetal abnormalities in experimental.

Chronic effects

No information available.

11.2 Additional Information

No information available.

SECTION 12: Ecological information

12.1 Toxicity

Product		Species	Test Results	
Lead Sulfide	LC50	Pimephales promelas (fathead minnow)	0.915 mg/L	96 h
	EC50	Daphnia magna (Water flea)	0.138 mg/L	48 h

12.2 Persistence and degradability

No information available.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

No information available.

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	UN3077
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s (Lead Sulfide)
Hazard Class	9
Packing Group	III

IMDG

UN-no	UN3077
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s (Lead Sulfide)
Hazard Class	9
Packing group	III

IATA

UN-no	UN3077
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s (Lead Sulfide)
Hazard Class	9
Packing Group	III

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)

Listed

CERCLA Hazardous Substance List (40 CFR 302.4)

Lead Sulfide RQ: 10 lb

SARA 304 Emergency release notification

Not regulated

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not applicable.

SARA 311/312 Hazardous

Acute Health Hazard, Chronic Health Hazard

SARA 313 (TRI reporting)

Not regulated

Other federal regulations

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

Not regulated

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

Not regulated.

Safe Drinking Water Act

Not regulated

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

SECTION 16: Other information

Issue date: 09/03/2024

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.