

SAFETY DATA SHEET

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

1.1 Product identifiers

Product name Mercurous Nitrate Dihydrate
CAS number 14836-60-3
Synonyms nitric acid mercury salt; mercurous 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)

Acute oral toxicity	Category 2
Acute dermal toxicity	Category 2
Acute inhalation toxicity - dusts and mists	Category 2
specific target organ toxicity - (repeated exposure)	Category 2
Target organs - lungs	

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

May cause damage to organs through prolonged or repeated exposure.

Fatal if swallowed, in contact with skin or if inhaled.

Precautionary statements

Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Do not eat, drink or smoke when using this product
Do not get in eyes, on skin, or on clothing.
Do not breathe dust/fumes/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wear respiratory protection.
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. Immediately call a POISON CENTER or doctor/physician

Skin

Immediately call a POISON CENTER or doctor/physician. IF ON SKIN: Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Storage

Store locked up, 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 effect.

WARNING: Reproductive harm.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
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Mercurous nitrate dihydrate	nitric acid mercury salt, mercurous nitrate	14836-60-3	>95%
Mercurous nitrate	-	10415-75-5	0%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

- If inhaled** Remove to fresh air. Do not use mouth-to mouth method if ingested or inhaled the substance; give artificial respiration with the air of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. If not breathing, give artificial respiration.
- In case of skin contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required
- In case of eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
- 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

No information available.

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 No information available.

Unsuitable extinguishing media No information available.

5.2 Specific hazards arising from the substance or mixture

Very toxic. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products

Nitrogen oxides (NO_x)

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 Not applicable.

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
4	1	1	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear self-contained breathing apparatus and protective suit. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid dust formation. Do not get in eyes, on skin, or on clothing.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up

Wear self-contained breathing apparatus and protective suit. Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

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/face protection. Avoid

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.

Incompatibilities

Incompatible materials: alcohols, strong reducing agents.

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
Mercurous nitrate dihydrate	PEL	0.1 mg/m ³

US. ACGIH Threshold Limit Values

Component	Type	Value
Mercurous nitrate dihydrate	TWA	0.025 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Mercurous nitrate dihydrate	IDLH	10 mg/m ³
	TWA	0.05 mg/m ³
	Ceiling	0.1 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 regulations in 19 CFR 1910.133 or European Standard EN166.

Skin protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

Follow the OSHA respirator regulations found in 19 CFR 1910.134 or European Standard EN 149. 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	Powder Solid
Appearance	Off-white
Odor	Odorless
Odor Threshold	No information available
pH	No information available
Melting Point/Range	70 °C / 158 °F
Boiling Point/Range	No information available.
Evaporation Rate	No applicable.
Flammability (solid)	No information available.
Flammability or explosive limit	
Upper	No data available.
Lower	No data available.
Vapor Pressure	No information available.
Vapor Density	Not applicable.
Density	4.78
Solubility	No information available.
Partition coefficient; n-octanol/water	No data available.
Autoignition Temp	Not applicable.
Decomposition Temp	> 70 °C
Viscosity	Not applicable.
Molecular Formula	Hg ₂ N ₂ O ₆ . 2 H ₂ O
Molecular Weight	561.22
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

None known, based on information available.

10.2 Chemical stability

Light sensitive.

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur. None under normal processing.

10.4 Conditions to avoid

Avoid dust formation. Incompatible products. Excess heat. Exposure to light.

10.5 Incompatible materials

Alcohols, strong reducing agents

10.6 Hazardous decomposition products

Nitrogen oxides (NO_x)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Mercurous nitrate	170 mg/kg (rat)	Not listed	Not listed

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
Mercurous nitrate dihydrate	7782-86-7	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

None known.

Specific target organ toxicity - repeated exposure

Lungs.

Reproductive toxicity

No information available.

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.

12.2 Persistence and degradability

Soluble in water, persistence is unlikely based on information available.

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

The toxicological properties have not been fully investigated.

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	UN1627
Proper Shipping Name	MERCUROUS NITRATE
Hazard Class	6.1
Packing Group	II

IMDG

UN-No UN1627
Proper Shipping Name MERCUROUS NITRATE
Hazard Class 6.1
Packing Group II

IATA
UN-No UN1627
Proper Shipping Name MERCUROUS NITRATE
Hazard Class 6.1
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)
Listed (MERCUROUS NITRATE)

CERCLA Hazardous Substance List (40 CFR 302.4)
Listed (MERCUROUS NITRATE)
Listed (MERCUROUS NITRATE DIHYDRATE)

Component	Hazardous Substances RQs	CERCLA Extremely Hazardous Substances RQs	SARA Reportable Quantity (RQ)
Mercurous nitrate dihydrate	10 lb	-	10 lb 4.54 kg
Mercurous nitrate	10 lb	-	10 lb 4.54 kg

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 listed.

SARA 311/312 Hazardous
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

SARA 313 (TRI reporting)
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372. that PBT chemicals are not eligible for the de minimis exemption. For these chemical supplier notification limits are provided.

Component	CAS No	Weight %	SARA 313 - Threshold Values %	SARA 313 - threas
Mercurous nitrate dihydrate	7782-86-7	>95	> 0 %	RT =
Mercurous nitrate	10415-75-5	0	> 0 %	RT =

Other federal regulations

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

Listed (MERCUROUS NITRATE DIHYDRATE)

Listed (MERCUROUS NITRATE)

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone
Mercurous nitrate dihydrate	X		-
Mercurous nitrate	X		-

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

Not regulated.

Safe Drinking Water Act

Listed (MERCUROUS NITRATE DIHYDRATE)

Listed (MERCUROUS NITRATE)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority
Mercurous nitrate dihydrate	X	-	X	-
Mercurous nitrate	X	10 lb	X	-

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

Not listed

US state regulations

US. Massachusetts RTK - Substance List

Listed (MERCUROUS NITRATE DIHYDRATE)

Listed (MERCUROUS NITRATE)

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

Listed (MERCUROUS NITRATE DIHYDRATE)

Listed (MERCUROUS NITRATE)

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

Listed (MERCUROUS NITRATE DIHYDRATE)

Listed (MERCUROUS NITRATE)

California Proposition 65

Listed (MERCUROUS NITRATE DIHYDRATE)

Listed (MERCUROUS NITRATE)

SECTION 16: Other information

Issue date: 07/12/2024

Revision: 0

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.

986
porting
Note
cals,

Reporting holds
10 lb
10 lb

Depletors

Pollutants