



**Material Safety Data Sheet**  
**Mercuric Nitrate, 0.002N to 0.141N**

**Section 1 - Chemical Product and Company Identification**

MSDS Name:  
 Mercuric Nitrate, 0.002N to 0.141N

Catalog Numbers:

LC16650, LC16655, LC16657, LC16660, LC16680

73433

Synonyms:

Company Identification:

LabChem, Inc.  
 200 William Pitt Way  
 Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(412) 826-5230

CHEMTREC Phone Number:

800-424-9300

**Section 2 - Composition, Information on Ingredients**

CAS#	Chemical Name	Ratio
7732-18-5	Water	balance
7783-34-8	Mercuric Nitrate monohydrate	.035-2.5

**Section 3 - Hazards Identification**

**EMERGENCY OVERVIEW**

*Appearance: colorless*  
*Danger! Highly toxic. Do not take internally. Do not taste or swallow. Causes eye and skin irritation. Causes digestive and respiratory tract irritation.*  
*Target Organs: kidneys.*

**Potential Health Effects**

**Eye:**

May result in corneal injury. Causes eye irritation and burns.

**Skin:**

May cause skin burns. Nitrate absorption may occur with hypotension, cyanosis, and convulsions.

**Ingestion:**

Ingestion causes hypotension, cyanosis, convulsions, metallic taste, abdominal pain, vomiting, bloody diarrhea, kidney and liver damage possible, with death from uremia (kidney is critical target organ).



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**Inhalation:**  
 Inhalation of mists can result in mercury and nitrate poisoning with sore throat, dyspnea, delayed pulmonary edema, headache, vomiting, dizziness, hypotension, cyanosis, convulsions, coma, respiratory paralysis, anorexia with later kidney damage, anuria.

**Chronic:**

Chronic exposure to mercury may cause permanent central nervous system damage, fatigue, weight loss, tremors, personality changes. Personality changes have been associated with chronic mercury poisoning. Skin absorption may lead to psychic disturbances, peripheral neuropathy, kidney damage. Mercury may be deposited in the lens of the eye, causing visual disturbances.

**Section 4 - First Aid Measures**

**Eyes:**

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

**Skin:**

Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

**Ingestion:**

Get medical aid at once. If victim is conscious, give 2-4 glasses of water and induce vomiting.

**Inhalation:**

Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

**Notes to Physician:**

Treat symptomatically and supportively.

**Section 5 - Fire Fighting Measures**

**General Information:**

Move container if possible, cool with flooding amounts of water. Dry mercuric nitrate is an oxidizer, reacts violently with oxidizable materials; increases flammability of combustible materials. Avoid toxic vapors of mercury, oxides of nitrogen.

**Extinguishing Media:**

In case of fire, use water fog, dry chemical, carbon dioxide, or regular foam.

**Autoignition Temperature:**

No information found.

**Flash Point:**

No information found.

**NFPA Rating:**

CAS# 7732-18-5: Not published.

CAS# 7783-34-8: Not published.

**Explosion Limits:**

Lower: Upper:

**Section 6 - Accidental Release Measures**

**General Information:**

Use proper personal protective equipment as indicated in Section 8.

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**Spills/Leaks:**  
Absorb spills with absorbent (vermiculite, sand, filler's earth) and place in plastic bags for later disposal. Avoid runoff into storm sewers and ditches which lead to waterways.

#### Section 7 - Handling and Storage

**Handling:**  
Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.

**Storage:**  
Store capped at room temperature. Protect from heat and incompatibles.

#### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:**  
Provide local exhaust or general dilution ventilation.

**Exposure Limits**

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Mercuric Nitrate monohydrate	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.

OSHA Vacated PELs

#### Personal Protective Equipment

**Eyes:**  
Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.

**Skin:**  
Wear appropriate protective gloves to prevent skin exposure.

**Clothing:**

Wear appropriate protective clothing to prevent skin exposure.

**Respirators:**

Not required for normal use. Firefighting-- any self-contained breathing apparatus with full facepiece operated in pressure-demand mode.

#### Section 9 - Physical and Chemical Properties

Physical State: Clear liquid  
Color: colorless  
Odor: odorless  
pH: neutral

Vapor Pressure: 14 mm Hg @20c  
Vapor Density: >air

Evaporation Rate: No information found.  
Viscosity: No information found.  
Boiling Point: > 100°C (> 212.00°F)  
Freezing/Melting Point: < 0°C (< 32.00°F)

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**Decomposition Temperature:** No information found.

**Stability in water:** Soluble.

**Specific Gravity/Density:** 1.0

**Molecular Formula:** No information found.

**Molecular Weight:** No information found.

#### Section 10 - Stability and Reactivity

**Chemical Stability:**  
Stable under normal temperatures and pressures. Mercuric nitrate is light sensitive, decomposes.

**Conditions to Avoid:**  
Incompatible materials.

**Incompatibilities with Other Materials**  
Dry mercuric nitrate reacts violently or explosively with sulfur, alcohols, phosphine, acetylene, potassium cyanide, hypophosphoric acid, unsaturated or aromatic hydrocarbon.

**Hazardous Decomposition Products**  
Mercury/mercury oxides.

**Hazardous Polymerization**  
Has not been reported.

#### Section 11 - Toxicological Information

**RTECS:**  
CAS# 7732-18-5: ZC0110000.  
CAS# 7783-34-8: unlisted.

**LD50/LC50:**  
CAS# 7732-18-5:  
Oral rat: LD50 = >90 mL/Kg.  
CAS# 7783-34-8:  
No information found.

**Carcinogenicity:**  
CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.  
CAS# 7783-34-8: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

**Epidemiology:**  
Mercuric nitrate is an eye, skin, mucous membrane irritant; peripheral neurotoxin and nephrotoxin. Mercury accumulates in tissue, especially brain, liver, and kidneys. LD50: 51400ug/Kg Oral-rat;  
29100ug/Kg Oral-mouse.

**Teratogenicity:**

**Reproductive:**

**Mutagenicity**

**Neurotoxicity**

#### Section 12 - Ecological Information

No information found.



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Print Date: 11/05/1999

## Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

## Section 14 - Transport Information

### US DOT

Shipping Name:	No information found.	No information found.	No information found.	No information found.
Hazard Class:				
UN Number:				
Packing Group:				

## Section 15 - Regulatory Information

### US Federal

**TSCA**  
CAS# 7732-18-5 is listed on the TSCA Inventory.  
CAS# 7783-34-8 is not listed on the TSCA Inventory. It is for research and development use only.  
**SARA Reportable Quantities (RQ)**  
None of the components are on this list.  
**CERCLA/SARA Section 313**  
None of the components are on this list.  
**OSHA - Highly Hazardous**  
None of the components are on this list.

### US State

State Right to Know  
California Regulations

## Section 16 - Other Information

MSDS Creation Date: October 27, 1998  
Revision Date: Original.

*Information in this MSDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and LabChem Inc. assumes no liability resulting from the use of this MSDS. The user must determine suitability of this information for his application.*

8-13 Sec Inf Beds

TP 18

18 TRN NH3

17th Bed + SBP  
18th "

RS