

# Material Safety Data Sheet

## Mercury(I) nitrate

ACC# 91796

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Mercury(I) nitrate**Catalog Numbers:** S75161**Synonyms:** Mercurous nitrate; Nitric acid, mercury salt.**Company Identification:**

Fisher Scientific

1 Reagent Lane

Fair Lawn, NJ 07410

**For information, call:** 201-796-7100**Emergency Number:** 201-796-7100**For CHEMTREC assistance, call:** 800-424-9300**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
10415-75-5	Mercurous nitrate	100	233-886-4

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: not available solid.

**Danger!** Poison! Strong oxidizer. Contact with other material may cause a fire. Causes eye, skin, and respiratory tract irritation. May cause central nervous system effects. May cause kidney damage. May cause reproductive and fetal effects.

**Target Organs:** Kidneys, central nervous system.

#### Potential Health Effects

**Eye:** Contact with eyes may cause severe irritation, and possible eye burns.

**Skin:** May be absorbed through the skin in harmful amounts. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May cause severe skin irritation with possible burns, especially if skin is wet or moist.

**Ingestion:** Harmful if swallowed. Poison by ingestion. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause kidney damage. May cause adverse nervous system effects and possible damage. Absorption into the body may cause methemoglobinemia which may lead to cyanosis. The effects may be

**Inhalation:** Causes respiratory tract irritation. May cause methemoglobinemia, cyanosis (bluish

discoloration of skin due to deficient oxygenation of the blood), convulsions, tachycardia, dyspnea (labored breathing), and death. May cause effects similar to those described for ingestion.

**Chronic:** No information found.

## Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Destroy contaminated shoes.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. May accelerate burning if involved in a fire.

**Extinguishing Media:** For small fires, use water spray, dry chemical, carbon dioxide or chemical foam. In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

**Flash Point:** Non flammable.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 1

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with clothing and other combustible materials. Avoid ingestion and inhalation. Store protected from light. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open

flames.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Mercurous nitrate	none listed	none listed	none listed

**OSHA Vacated PELs:** Mercurous nitrate: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** 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:** Wear appropriate gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 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.

## Section 9 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** not available

**Odor:** none reported

**pH:** Not available.

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not available.

**Evaporation Rate:** Not applicable.

**Viscosity:** Not applicable.

**Boiling Point:** Not available.

**Freezing/Melting Point:** 70 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Soluble in water.

**Specific Gravity/Density:** 4.0

**Molecular Formula:** Hg<sub>2</sub>(NO<sub>3</sub>)<sub>2</sub>·1H<sub>2</sub>O

**Molecular Weight:** 543.2032

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** High temperatures, incompatible materials, light, reducing agents.

**Incompatibilities with Other Materials:** Strong reducing agents, cyanides, thiocyanates, isothiocyanates, hypophosphites.

**Hazardous Decomposition Products:** Nitrogen oxides, mercury/mercury oxides.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 10415-75-5: OW8000000

**LD50/LC50:**

CAS# 10415-75-5:

Oral, mouse: LD50 = 49300 ug/kg;

Oral, rat: LD50 = 170 mg/kg;

Skin, rat: LD50 = 2330 mg/kg;

**Carcinogenicity:**

CAS# 10415-75-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information available.

**Teratogenicity:** No information available.

**Reproductive Effects:** No information available.

**Mutagenicity:** Please refer to RTCES# OV7415000 for specific information.

**Neurotoxicity:** No information available.

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.

**Environmental:** No information reported.

**Physical:** No information available.

**Other:** None.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

**US DOT**

**Canada TDG**

<b>Shipping Name:</b>	MERCUROUS NITRATE	MERCUROUS NITRATE
<b>Hazard Class:</b>	6.1	6.1
<b>UN Number:</b>	UN1627	UN1627
<b>Packing Group:</b>	II	II

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 10415-75-5 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

CAS# 10415-75-5: 10 lb final RQ; 4.54 kg final RQ

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### Section 313

This material contains Mercurous nitrate (listed as Water Dissociable Nitrate Compounds), 100%, (CAS# 10415-75-5) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

#### Clean Water Act:

CAS# 10415-75-5 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 10415-75-5 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

#### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

T

**Risk Phrases:**

- R 26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.  
R 33 Danger of cumulative effects.

**Safety Phrases:**

- S 1/2 Keep locked up and out of reach of children.  
S 13 Keep away from food, drink and animal feeding stuffs.  
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S 28A After contact with skin, wash immediately with plenty of water

**WGK (Water Danger/Protection)**

CAS# 10415-75-5: 3

**Canada - DSL/NDSL**

CAS# 10415-75-5 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of C, D1A, D2A.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 10415-75-5 is listed on the Canadian Ingredient Disclosure List.

<b>Section 16 - Additional Information</b>
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**MSDS Creation Date:** 4/17/2001

**Revision #6 Date:** 1/10/2008

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