



**Be Right™**

# SAFETY DATA SHEET

Issue Date 07-Sep-2019

Revision Date  
13-Dec-2021

Version 3.5

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## 1. IDENTIFICATION

### Product identifier

**Product Name** Mercuric Nitrate 2.256 ± 0.005 N

### Other means of identification

**Product Code(s)** 92101

**Safety data sheet number** M00378

**UN/ID no** UN2922

### Recommended use of the chemical and restrictions on use

**Recommended Use** Laboratory Use. Determination of chloride.

**Uses advised against** Consumer use.

**Restrictions on use** For Laboratory Use Only.

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

#### **Emergency telephone number**

+1(303) 623-5716 - 24 Hour Service

## 2. HAZARDS IDENTIFICATION

### Classification

#### **Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Corrosive to metals	Category 1
Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 1
Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (repeated exposure)	Category 2
Aquatic Acute Toxicity	Category 1
Chronic aquatic toxicity	Category 1

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

#### **Signal word**

Danger

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#### **Hazard statements**

H290 - May be corrosive to metals  
H301 - Toxic if swallowed  
H310 - Fatal in contact with skin  
H314 - Causes severe skin burns and eye damage  
H330 - Fatal if inhaled  
H373 - May cause damage to organs through prolonged or repeated exposure  
H410 - Very toxic to aquatic life with long lasting effects

#### **Precautionary statements**

P501 - Dispose of contents/ container to an approved waste disposal plant  
P262 - Do not get in eyes, on skin, or on clothing  
P270 - Do not eat, drink or smoke when using this product  
P310 - Immediately call a POISON CENTER or doctor/physician  
P405 - Store locked up  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P271 - Use only outdoors or in a well-ventilated area  
P284 - Wear respiratory protection  
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
P280 - Wear protective gloves, protective clothing, eye protection, and face protection  
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P363 - Wash contaminated clothing before reuse  
P273 - Avoid release to the environment  
P391 - Collect spillage  
P234 - Keep only in original container  
P390 - Absorb spillage to prevent material damage  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

#### **Other Hazards Known**

None

### **3. COMPOSITION/INFORMATION ON INGREDIENTS**

#### **Substance**

Not applicable

#### **Mixture**

**Chemical Family** Mixture.

**Chemical nature** Aqueous solution of inorganic acids and salts.

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No	Percent Range	HMRIC #
Mercury(II) nitrate	10045-94-0	30 - 40%	-
Nitric acid	7697-37-2	1 - 5%	-

#### 4. FIRST AID MEASURES

##### Description of first aid measures

<b>General advice</b>	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention. Remove to fresh air.
<b>Eye contact</b>	Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention.
<b>Ingestion</b>	Get immediate medical advice/attention. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting.
<b>Self-protection of the first aider</b>	Do not breathe vapor or mist. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing.

##### Most important symptoms and effects, both acute and delayed

**Symptoms** Coughing and/ or wheezing. Difficulty in breathing. Burning sensation.

##### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

#### 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable Extinguishing Media</b>	Caution: Use of water spray when fighting fire may be inefficient.

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<b>Specific hazards arising from the chemical</b>	The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.
<b>Hazardous combustion products</b>	Mercury. Nitrogen oxides.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. ACCIDENTAL RELEASE MEASURES

<b>U.S. Notice</b>	Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.
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### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Do not breathe vapor or mist. Attention! Corrosive material. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.
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<b>Other Information</b>	Refer to protective measures listed in Sections 7 and 8.
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### Environmental precautions

<b>Environmental precautions</b>	Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.
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### Methods and material for containment and cleaning up

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.
<b>Reference to other sections</b>	See section 8 for more information. See section 13 for more information.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

<b>Advice on safe handling</b>	Do not breathe vapor or mist. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Take off contaminated clothing and wash before reuse. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.
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### Conditions for safe storage, including any incompatibilities

<b>Storage Conditions</b>	Protect from moisture. Store away from other materials. Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.
<b>Flammability class</b>	Not applicable

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Mercury(II) nitrate CAS#: 10045-94-0	TWA: 0.025 mg/m <sup>3</sup> Hg S*	(vacated) Ceiling: 0.1 mg/m <sup>3</sup>	IDLH: 10 mg/m <sup>3</sup> Hg Ceiling: 0.1 mg/m <sup>3</sup> Hg TWA: 0.05 mg/m <sup>3</sup> except Organo alkyls Hg vapor
Nitric acid CAS#: 7697-37-2	STEL: 4 ppm TWA: 2 ppm	TWA: 2 ppm TWA: 5 mg/m <sup>3</sup> (vacated) TWA: 2 ppm (vacated) TWA: 5 mg/m <sup>3</sup> (vacated) STEL: 4 ppm (vacated) STEL: 10 mg/m <sup>3</sup>	IDLH: 25 ppm TWA: 2 ppm TWA: 5 mg/m <sup>3</sup> STEL: 4 ppm STEL: 10 mg/m <sup>3</sup>

### Appropriate engineering controls

#### Engineering Controls

Showers  
 Eyewash stations  
 Ventilation systems.

### Individual protection measures, such as personal protective equipment

#### Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

#### Hand Protection

Impervious gloves. Wear suitable gloves.

#### Eye/face protection

Face protection shield.

#### Skin and body protection

Impervious clothing. Long sleeved clothing. Chemical resistant apron. Wear suitable protective clothing. Avoid contact with eyes, skin and clothing. Wash contaminated clothing before reuse.

#### General Hygiene Considerations

Do not breathe vapor or mist. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

#### Environmental exposure controls

Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.

#### Thermal hazards

None under normal processing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

#### Physical state

Liquid

#### Appearance

aqueous solution

#### Color

Colorless to light yellow

#### Odor

Odorless

#### Odor threshold

No data available

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<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>Molecular weight</b>	Not applicable	
<b>pH</b>	0.6	@ 20 °C
<b>Melting point/freezing point</b>	~ -8 °C / 17.6 °F	
<b>Boiling point / boiling range</b>	~ 102 °C / 215.6 °F	
<b>Evaporation rate</b>	0.86 (water = 1)	
<b>Vapor pressure</b>	22.877 mm Hg / 3.05 kPa at 25 °C / 77 °F	
<b>Relative vapor density</b>	0.66	
<b>Specific gravity (water = 1 / air = 1)</b>	1.34	
<b>Partition Coefficient (n-octanol/water)</b>	Not applicable	
<b>Soil Organic Carbon-Water Partition Coefficient</b>	Not applicable	
<b>Autoignition temperature</b>	No data available	
<b>Decomposition temperature</b>	No data available	
<b>Dynamic viscosity</b>	No data available	
<b>Kinematic viscosity</b>	No data available	

#### Solubility(ies)

##### **Water solubility**

<u>Water solubility classification</u>	<u>Water solubility</u>	<u>Water Solubility Temperature</u>
Soluble	> 1000 mg/L	25 °C / 77 °F

##### **Solubility in other solvents**

<u>Chemical Name</u>	<u>Solubility classification</u>	<u>Solubility</u>	<u>Solubility Temperature</u>
Acid	Soluble	> 1000 mg/L	25 °C / 77 °F

#### Other information

##### **Metal Corrosivity**

Classified as corrosive to metal according to GHS criteria

##### **Steel Corrosion Rate**

0.1 mm/yr / 0 in/yr

##### **Aluminum Corrosion Rate**

No data available

##### **Volatile Organic Compounds (VOC) Content**

<b>Chemical name</b>	<b>CAS No</b>	<b>Volatile organic compounds (VOC) content</b>	<b>CAA (Clean Air Act)</b>
Mercury(II) nitrate	10045-94-0	No data available	-
Nitric acid	7697-37-2	Not applicable	-

##### **Explosive properties**

##### **Upper explosion limit**

No data available

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**Lower explosion limit**

No data available

**Flammable properties**

**Flash point**

No data available

**Flammability Limit in Air**

**Upper flammability limit:**

No data available

**Lower flammability limit:**

No data available

**Oxidizing properties**

No data available.

**Bulk density**

No data available

## 10. STABILITY AND REACTIVITY

**Reactivity**

Not applicable. Corrosive to metal.

**Chemical stability**

Stable under normal conditions.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Possibility of hazardous reactions**

None under normal processing.

**Hazardous polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid**

Excessive heat. Exposure to air or moisture over prolonged periods.

**Incompatible materials**

Acids. Bases. Oxidizing agent.

**Hazardous decomposition products**

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

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product Information**

**Inhalation**

Fatal if inhaled. Corrosive by inhalation. Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal.

**Eye contact**

Causes burns. Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes.

**Skin contact**

Fatal in contact with skin. Corrosive. Causes severe burns. Avoid contact with skin and

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clothing.

#### **Ingestion**

Causes burns. Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

#### **Symptoms**

Difficulty in breathing. Coughing and/ or wheezing. Redness. Burning. May cause blindness.

#### **Acute toxicity**

Toxic if swallowed  
Fatal in contact with skin  
Fatal if inhaled

#### **Product Acute Toxicity Data**

Test data reported below.

#### **Oral Exposure Route**

<u>Endpoint type</u>	<u>Reported dose</u>	<u>Exposure time</u>	<u>Toxicological effects</u>	<u>Key literature references and sources for data</u>
Rat LD <sub>50</sub>	210 mg/kg	None reported	<b>Behavioral</b> Chewing motion Sedation Tremor <b>Eye</b> Lacrimation Ptosis <b>Gastrointestinal</b> Loose stool Mucinous stool <b>Lungs, Thorax, or Respiration</b> Respiratory depression Nasal discharge <b>Skin and Appendages</b> Piloerection	Outside testing

#### **Inhalation (Gas) Exposure Route**

#### **Ingredient Acute Toxicity Data**

Test data reported below.

#### **Oral Exposure Route**

<u>Chemical name</u>	<u>Endpoint type</u>	<u>Reported dose</u>	<u>Exposure time</u>	<u>Toxicological effects</u>	<u>Key literature references and sources for data</u>
Mercury(II) nitrate (30 - 40%) CAS#: 10045-94-0	Rat LD <sub>50</sub>	26 mg/kg	None reported	None reported	LOLI

#### **Dermal Exposure Route**

#### **Inhalation (Dust/Mist) Exposure Route**

#### **Unknown Acute Toxicity**

4E-06% of the mixture consists of ingredient(s) of unknown toxicity.



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### Acute Toxicity Estimations (ATE)

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	No information available
<b>ATEmix (dermal)</b>	14.60 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	0.147 mg/l
<b>ATEmix (inhalation-vapor)</b>	No information available
<b>ATEmix (inhalation-gas)</b>	No information available

### Skin corrosion/irritation

Causes severe burns.

### Product Skin Corrosion/Irritation Data

No data available.

### Ingredient Skin Corrosion/Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Mercury(II) nitrate (30 - 40%) CAS#: 10045-94-0	Existing human experience	Human	None reported	None reported	Skin irritant	HSDB (Hazardous Substances Data Bank)
Nitric acid (1 - 5%) CAS#: 7697-37-2	Existing human experience	Human	None reported	None reported	Corrosive to skin	ERMA (New Zealand's Environmental Risk Management Authority)

### Serious eye damage/irritation

Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

### Product Serious Eye Damage/Eye Irritation Data

No data available.

### Ingredient Eye Damage/Eye Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Mercury(II) nitrate (30 - 40%) CAS#: 10045-94-0	Existing human experience	Human	None reported	None reported	Corrosive to eyes	HSDB (Hazardous Substances Data Bank)
Nitric acid (1 - 5%) CAS#: 7697-37-2	Existing human experience	Human	None reported	None reported	Corrosive to eyes	ERMA (New Zealand's Environmental Risk Management Authority)

### Respiratory or skin sensitization

Based on available data, the classification criteria are not met.

### Product Sensitization Data

No data available.

### Ingredient Sensitization Data

No data available.

### STOT - single exposure

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Based on available data, the classification criteria are not met.

**Product Specific Target Organ Toxicity Single Exposure Data**

No data available.

**Ingredient Specific Target Organ Toxicity Single Exposure Data**

Test data reported below.

**Dermal Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Nitric acid (1 - 5%) CAS#: 7697-37-2	Rat TD <sub>Lo</sub>	226500 mg/kg	None reported	<b>Blood</b> Methemoglobinemia-Carboxyhe moglobin	RTECS (Registry of Toxic Effects of Chemical Substances)

**Inhalation (Vapor) Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Nitric acid (1 - 5%) CAS#: 7697-37-2	Rat TC <sub>Lo</sub>	460 mg/L	1 hours	<b>Nutritional and Gross Metabolic</b> Weight loss or decreased weight gain	RTECS (Registry of Toxic Effects of Chemical Substances)

**STOT - repeated exposure**

May cause damage to organs.

**Product Specific Target Organ Toxicity Repeat Dose Data**

No data available.

**Ingredient Specific Target Organ Toxicity Repeat Exposure Data**

Test data reported below.

**Inhalation (Vapor) Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Nitric acid (1 - 5%) CAS#: 7697-37-2	Rat TC <sub>Lo</sub>	0.001071 mg/L	84 days	<b>Behavioral</b> Muscle contraction or spasticity <b>Biochemical</b> Enzyme inhibition, induction, or change in blood or tissue levels (true cholinesterase) <b>Kidney, Ureter, or Bladder</b> Other changes in urine composition	RTECS (Registry of Toxic Effects of Chemical Substances)

**Carcinogenicity**

Based on available data, the classification criteria are not met.

**Product Carcinogenicity Data**

No data available.

**Ingredient Carcinogenicity Data**

No data available.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Mercury(II) nitrate	10045-94-0	-	Group 3 Group 2A	-	X

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Nitric acid	7697-37-2	-	Group 2A Group 1	-	X
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#### Legend

<b>ACGIH (American Conference of Governmental Industrial Hygienists)</b>	Does not apply
<b>IARC (International Agency for Research on Cancer)</b>	Group 1 - Carcinogenic to Humans Group 2A - Probably Carcinogenic to Humans Group 3 - Not classifiable as a human carcinogen
<b>NTP (National Toxicology Program)</b>	Does not apply
<b>OSHA (Occupational Safety and Health Administration of the US Department of Labor)</b>	X - Present

#### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

#### **Product Germ Cell Mutagenicity invitro Data**

No data available.

#### **Ingredient Germ Cell Mutagenicity invitro Data**

Test data reported below.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Mercury(II) nitrate (30 - 40%) CAS#: 10045-94-0	Micronucleus test	Hamster fibroblast	0.0002 mmol/L	8 hours	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

#### **Product Germ Cell Mutagenicity invivo Data**

No data available.

#### **Ingredient Germ Cell Mutagenicity invivo Data**

No data available.

#### Reproductive toxicity

Based on available data, the classification criteria are not met.

#### **Product Reproductive Toxicity Data**

No data available.

#### **Ingredient Reproductive Toxicity Data**

Test data reported below.

#### **Oral Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Mercury(II) nitrate (30 - 40%) CAS#: 10045-94-0	None reported	None reported	96 hours	<b>Effects on Embryo or Fetus</b> Significant concentrations of substance found in maternal, placental and embryonic tissues.	No information available
Nitric acid (1 - 5%) CAS#: 7697-37-2	Rat TD <sub>Lo</sub>	21150 mg/kg	21 days	<b>Effects on Embryo or Fetus</b> Fetotoxicity (except death e.g. stunted fetus)	RTECS (Registry of Toxic Effects of Chemical Substances)

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#### Aspiration hazard

Based on available data, the classification criteria are not met.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Very toxic to aquatic life with long lasting effects.

**Unknown aquatic toxicity** 0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

#### Product Ecological Data

##### Aquatic Acute Toxicity

No data available.

##### Aquatic Chronic Toxicity

No data available.

#### Ingredient Ecological Data

##### Aquatic Acute Toxicity

Test data reported below.

##### Fish

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Mercury(II) nitrate (30 - 40%) CAS#: 10045-94-0	96 hours	<i>Pimephales promelas</i>	LC <sub>50</sub>	0.172 mg/L	EPA (United States Environmental Protection Agency)

##### Crustacea

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Mercury(II) nitrate (30 - 40%) CAS#: 10045-94-0	48 Hours	None reported	LC <sub>50</sub>	0.0049 mg/L	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)

##### Aquatic Chronic Toxicity

No data available.

#### Persistence and degradability

##### Product Biodegradability Data

No data available.

##### Bioaccumulation

There is no data for this product

##### Product Bioaccumulation Data

No data available.

**Partition Coefficient (n-octanol/water)**

Not applicable

##### Mobility

**Soil Organic Carbon-Water Partition Coefficient**

Not applicable

**Other adverse effects**

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No information available

### 13. DISPOSAL CONSIDERATIONS

#### Waste treatment methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

**US EPA Waste Number** D009, D002

**Special instructions for disposal** Decontaminate any equipment or surfaces that have come in contact with mercury with commercially available mercury absorbing compounds. Dispose of all mercury contaminated material at an E.P.A. hazardous waste facility. Dispose of material in an E.P.A. approved hazardous waste facility.

### 14. TRANSPORT INFORMATION

#### DOT

**UN/ID no** UN2922  
**Proper shipping name** Corrosive liquids, toxic, n.o.s.  
**DOT Technical Name** Mercury(II) nitrate, Nitric acid  
**Transport hazard class(es)** 8  
**Subsidiary class** 6.1  
**Packing Group** II  
**Reportable Quantity (RQ)** Mercuric nitrate: RQ kg= 13.30  
**Description** UN2922, Corrosive liquids, toxic, n.o.s. (Mercury(II) nitrate, Nitric acid), 8 (6.1), II  
**Emergency Response Guide Number** 154

#### TDG

**UN/ID no** UN2922  
**Proper shipping name** Corrosive liquid, toxic, n.o.s.  
**TDG Technical Name** Mercury(II) nitrate, Nitric acid  
**Transport hazard class(es)** 8  
**Subsidiary class** 6.1  
**Packing Group** II  
**Description** UN2922, Corrosive liquid, toxic, n.o.s. (Mercury(II) nitrate, Nitric acid), 8 (6.1), II

#### IATA

**UN number or ID number** UN2922  
**Proper shipping name** Corrosive liquid, toxic, n.o.s.  
**IATA Technical Name** Mercury(II) nitrate, Nitric acid  
**Transport hazard class(es)** 8  
**Subsidiary hazard class** 6.1  
**Packing group** II  
**ERG Code** 8P  
**Special precautions for user** A3, A803

#### IMDG

**UN number or ID number** UN2922  
**Proper shipping name** Corrosive liquid, toxic, n.o.s.  
**IMDG Technical Name** Mercury(II) nitrate, Nitric acid  
**Transport hazard class(es)** 8  
**Subsidiary hazard class** 6.1

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**Packing Group** II  
**EmS-No** F-A, S-B  
**Special precautions for user** 274

**Note:** No special precautions necessary.

**Additional information**

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies.  
If the item is part of a reagent set or kit the classification would change to the following:  
UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.  
If the item is not regulated, the Chemical Kit classification does not apply.

## 15. REGULATORY INFORMATION

**National Inventories**

**TSCA** Complies  
**DSL/NDSL** Complies

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**International Inventories**

**EINECS/ELINCS** Complies  
**ENCS** Complies  
**IECSC** Complies  
**KECL - Existing substances** Complies  
**PICCS** Complies  
**TCSI** Complies  
**AICS** Complies  
**NZIoC** Complies

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**TCSI** - Taiwan Chemical Substances Inventory  
**AICS** - Australian Inventory of Chemical Substances  
**NZIoC** - New Zealand Inventory of Chemicals

**US Federal Regulations**

**SARA 313**

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 reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Mercury(II) nitrate (CAS #: 10045-94-0)	1.0
Nitric acid (CAS #: 7697-37-2)	1.0

**SARA 311/312 Hazard Categories**

**Acute health hazard** Yes  
**Chronic Health Hazard** Yes  
**Fire hazard** No  
**Sudden release of pressure hazard** No  
**Reactive Hazard** No

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21

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and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Mercury(II) nitrate 10045-94-0	10 lb	X	-	X
Nitric acid 7697-37-2	1000 lb	-	-	X

#### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Mercury(II) nitrate 10045-94-0	10 lb	-	RQ 10 lb final RQ RQ 4.54 kg final RQ
Nitric acid 7697-37-2	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ

#### **U.S. - Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues**

Chemical name	U.S. - Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues
Nitric acid (1 - 5%) CAS#: 7697-37-2	Release - Toxic; Theft - Explosives/Improvised Explosive Device Precursors

#### **US State Regulations**

##### **California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
Mercury(II) nitrate (CAS #: 10045-94-0)	Developmental



**WARNING:** This product can expose you to chemicals including Mercury(II) nitrate, which is known to the State of California to cause birth defects or other reproductive harm.  
For more information, go to <http://www.P65Warnings.ca.gov>

**IMERC:** Contains Mercury Dispose of in accordance with local, state and federal regulations or laws.

#### **U.S. State Right-to-Know Regulations**

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania
Mercury(II) nitrate 10045-94-0	X	X	X
Nitric acid 7697-37-2	X	X	X

#### **U.S. EPA Label Information**

### **16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

#### **Special Comments**

This product contains mercury and may be subject to reporting and recordkeeping requirements

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#### Additional information

#### Global Automotive Declarable Substance List (GADSL)

Chemical name	Global Automotive Declarable Substance List Classifications	Global Automotive Declarable Substance List Thresholds
Mercury(II) nitrate 10045-94-0	Declarable Substance (LR) Prohibited Substance (LR)	0 % 0.1 %

#### NFPA and HMIS Classifications

NFPA	Health hazards - 4	Flammability - 0	Instability - 0	Physical and chemical properties -
HMIS	Health hazards - 4 - *	Flammability - 0	Physical hazards - 0	Personal protection - X - I

#### Key or legend to abbreviations and acronyms used in the safety data sheet

NIOSH IDLH *Immediately Dangerous to Life or Health*  
ACGIH ACGIH (American Conference of Governmental Industrial Hygienists)  
NDF *no data*

#### Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

Prepared By Hach Product Compliance Department  
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Revision Note None

#### Disclaimer

**USER RESPONSIBILITY:** Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

**THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.**

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**End of Safety Data Sheet**