# Safety Data Sheet

according to 29 CFR 1910.1200(g)

## Mercury – AA Standard 1000 µg/ml (Hg)



## 1. Identification

**Product identifier**

Mercury – AA Standard 1000 µg/ml (Hg)

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

**Use of the substance/mixture**

Reagents and laboratory chemicals
Only for laboratory and analysis purposes.

**Uses advised against**

Do not use for private purposes (household).

**Details of the supplier of the safety data sheet**

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| | |
|---|---|
| Company name: | Analytichem Services Unipessoal Lda |
| Street: | Rua de Júlio Dinis 676 7º |
| Place: | P-4050-320 Porto |
| Contact person: | SDS service department |
| E-mail: | SDS@analytichem.com |
| Responsible Department: | SDS service department |

**Supplier or manufacturer details**

| | |
|---|---|
| Company name: | AnalytiChem Canada Inc. Québec, CANADA |
| Street: | 21800 Clark Graham Ave |
| Place: | CDN-H9X 4B6 Baie-D'Urfé |
| Telephone: | +1 (800) 361-6820 Telefax: +1 (800) 253-5549 |
| Contact person: | SDS service department |
| E-mail: | SDS@analytichem.com |
| Responsible Department: | AnalytiChem:<br>EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20<br>EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200<br>EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848<br>UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500<br>USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378<br>Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701<br>Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333 |

**Emergency phone number:** 1-703-741-5970 (CHEMTREC 24h)

**Further Information**

No data available

## 2. Hazard(s) identification

**Classification of the chemical**

**29 CFR Part 1910.1200**

Corrosive to metals: Met. Corr. 1

Skin corrosion/irritation: Skin Corr. 1A
Serious eye damage/eye irritation: Eye Dam. 1

**Label elements**

**29 CFR Part 1910.1200**

**Signal word:** Danger

**Pictograms:**

**Hazard statements**

May be corrosive to metals
Causes severe skin burns and eye damage

**Precautionary statements**

Dispose of contents/container to hazardous or special waste collection point.
Keep only in original container.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing and eye protection/face protection.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
Absorb spillage to prevent material damage.
Store locked up.
Store in corrosive resistant container with a resistant inner liner.

**Hazards not otherwise classified**

No data available

## 3. Composition/information on ingredients

**Mixtures**

**Chemical characterization**

Mixtures in aqueous solution

**Relevant ingredients**

| CAS No | Components | Quantity |
|---|---|---|
| 7697-37-2 | nitric acid | 10 % |
| 21908-53-2 | mercury monoxide | 0.108 % |

**Further Information**

No data available

## 4. First-aid measures

**Description of first aid measures**

**General information**

Self-protection of the first aider

**After inhalation**

Provide fresh air.

Call a physician immediately.

**After contact with skin**

Wash immediately with: Water
Take off immediately all contaminated clothing and wash it before reuse.
Call a physician immediately.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.
Remove contact lenses, if present and easy to do. Continue rinsing.
Protect uninjured eye.

**After ingestion**

Rinse mouth immediately and drink plenty of water.
Do NOT induce vomiting. Do not allow a neutralisation agent to be drunk.
Call a physician immediately.

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

Irritant

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

No data available

## 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

No data available

**Specific hazards arising from the chemical**

Non-combustible liquids
Hazardous combustion products
In case of fire may be liberated:
Nitrogen oxides (NOx)

**Special protective equipment and precautions for fire-fighters**

In case of fire: Wear self-contained breathing apparatus.
Avoid contact with skin, eyes and clothes.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Move undamaged containers from immediate hazard area if it can be done safely.
Use water spray jet to protect personnel and to cool endangered containers.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**General advice**

Corrosive to metals.
Do not breathe vapor or spray.

**For non-emergency personnel**

Provide adequate ventilation.
Use personal protection equipment.
Avoid contact with skin, eyes and clothes.
Remove persons to safety.
Emergency procedures
Consult an expert

Do not breathe dust/fume/gas/mist/vapors/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment (PPE): see section 8

**Environmental precautions**

Do not allow to enter into surface water or drains.

**Methods and material for containment and cleaning up**

**For containment**

Cover drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).
Collect in closed and suitable containers for disposal.
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear breathing apparatus if exposed to vapors/dusts/aerosols.

**Reference to other sections**

Safe handling: see section 7
Personal protection equipment (PPE): see section 8
Disposal: see section 13

## 7. Handling and storage

**Precautions for safe handling**

**Advice on safe handling**

Read label before use. Handle and open container with care.
When using do not eat, drink, smoke, sniff. Use personal protection equipment.
Provide adequate ventilation. Avoid contact with skin, eyes and clothes.
Do not breathe vapor or spray.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Advice on general occupational hygiene**

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Avoid: aerosol or mist formation Do not breathe vapor or spray.

**Further information on handling**

Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary.
Take off immediately all contaminated clothing and wash it before reuse.

**Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Corrosive to metals.
Unsuitable container/equipment material: Metal
The product develops hydrogen in an aqueous solution in contact with metals.

**Hints on joint storage**

national regulations

**Further information on storage conditions**

Keep container tightly closed.

## 8. Exposure controls/personal protection

**Control parameters**

**Exposure limits**

| CAS No | Substance | ppm | mg/m³ | | Category | Origin |
|---|---|---|---|---|---|---|
| 7697-37-2 | Nitric acid | 2 | 5 | | TWA (8 h) | PEL |
| | | 2 | 5 | | TWA (8 h) | REL |
| | | 4 | 10 | | STEL (15 min) | REL |
| 7697-37-2 | Nitric acid | 2 | 5.2 | | TWA (8 h) | ACGIH-2024 |
| | | 4 | 10 | | STEL (15 min) | ACGIH-2024 |

**Exposure controls**

**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.
If handled uncovered, arrangements with local exhaust ventilation have to be used.
Do not breathe vapor or spray.

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

**Eye/face protection**

goggles
Wear eye/face protection.

**Hand protection**

Tested protective gloves must be worn
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

**Skin protection**

Tested protective gloves must be worn
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of the protective agents should be clarified with their suppliers.

**Respiratory protection**

Respiratory protection necessary at: aerosol or mist formation
The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented. A respiratory protection program that meets OSHA's 29 CFR 1910.134 requirements must be followed whenever workplace conditions warrant a respirator's use.

**Thermal hazards**

No data available

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

## 9. Physical and chemical properties

**Information on basic physical and chemical properties**

| | |
|---|---|
| Physical state: | Liquid |
| Color: | colorless |
| Odor: | odorless |
| Odour threshold: | No data available |
| Melting point/freezing point: | No data available |

| | |
|---|---|
| Boiling point or initial boiling point and boiling range: | No data available |
| Flammability: | No data available |
| Lower explosion limits: | No data available |
| Upper explosion limits: | No data available |
| Flash point: | No data available |
| Auto-ignition temperature: | No data available |
| Decomposition temperature: | No data available |
| pH-Value: | No data available |
| Viscosity / kinematic: | No data available |
| Water solubility: | No data available |
| Solubility in other solvents | |
| No data available | |
| Dissolution rate: | No data available |
| Partition coefficient n-octanol/water: | No data available |
| Dispersion stability: | No data available |
| Vapor pressure: | No data available |
| Vapor pressure: | No data available |
| Density (at 22 °C): | 1,051 g/cm³ |
| Relative density: | No data available |
| Bulk density: | No data available |
| Relative vapour density: | No data available |
| Particle characteristics: | No data available |

**Other information**

**Information with regard to physical hazard classes**

| | |
|---|---|
| Explosive properties | |
| No data available | |
| Sustained combustibility: | No data available |
| Self-ignition temperature | |
| Solid: | No data available |
| Gas: | No data available |
| Oxidizing properties | |
| No data available | |

**Other safety characteristics**

| | |
|---|---|
| Evaporation rate: | No data available |
| Solvent separation test: | No data available |
| Solvent content: | No data available |
| Solid content: | No data available |
| Sublimation point: | No data available |
| Softening point: | No data available |
| Pour point: | No data available |
| No data available: | |
| Viscosity / dynamic: | No data available |
| Flow time: | No data available |

**Further Information**

Corrosive to metals.

## 10. Stability and reactivity

**Reactivity**

Corrosive to metals.

**Chemical stability**

The product is stable under storage at normal ambient temperatures.

**Possibility of hazardous reactions**

Alkali (lye)
The product develops hydrogen in an aqueous solution in contact with metals.

**Conditions to avoid**

No data available

**Incompatible materials**

Cellulose
Metal
The product develops hydrogen in an aqueous solution in contact with metals.

**Hazardous decomposition products**

In case of fire may be liberated:
SECTION 5: Fire fighting measures

**Further information**

No data available

## 11. Toxicological information

**Route(s) of Entry**

There are no data available on the mixture itself.

**Information on toxicological effects**

**Toxicocinetics, metabolism and distribution**

There are no data available on the mixture itself.

**Acute toxicity**

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

**ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg

| CAS No | Components | | | | |
|---|---|---|---|---|---|
| | Exposure route | Dose | Species | Source | Method |
| 7697-37-2 | nitric acid | | | | |
| | inhalation vapour | ATE 2,65 mg/l | | | |
| 21908-53-2 | mercury monoxide | | | | |
| | oral | ATE 5 mg/kg | | | |
| | dermal | ATE 5 mg/kg | | | |
| | inhalation vapour | ATE 0,5 mg/l | | | |
| | inhalation dust/mist | ATE 0,05 mg/l | | | |

**Irritation and corrosivity**

Skin corrosion/irritation: Causes severe skin burns and eye damage
Serious eye damage/eye irritation: Causes serious eye damage

**Sensitizing effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

**Specific target organ toxicity (STOT) - single exposure**

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

**Specific target organ toxicity (STOT) - repeated exposure**

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

| | |
|---|---|
| Carcinogenicity (OSHA): | No ingredient of this mixture is listed. |
| Carcinogenicity (IARC): | No ingredient of this mixture is listed. |
| Carcinogenicity (NTP): | No ingredient of this mixture is listed. |

**Aspiration hazard**

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

**Specific effects in experiment on an animal**

There are no data available on the mixture itself.

**Additional information on tests**

There are no data available on the mixture itself.

**Practical experience**

There are no data available on the mixture itself.

**Information on other hazards**

**Endocrine disrupting properties**

There are no data available on the mixture itself.

**Other information**

There are no data available on the mixture itself.

**Further information**

There are no data available on the mixture itself.

## 12. Ecological information

**Ecotoxicity**

There are no data available on the mixture itself.

**Persistence and degradability**

There are no data available on the mixture itself.

**Bioaccumulative potential**

There are no data available on the mixture itself.

**Mobility in soil**

There are no data available on the mixture itself.

**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.
There are no data available on the mixture itself.

**Other adverse effects**

Discharge into the environment must be avoided.
Harmful effect due to pH shift.
Forms corrosive mixtures with water even if diluted.

**Further information**

Do not allow to enter into surface water or drains.

## 13. Disposal considerations

**Waste treatment methods**

**Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.
Send to a physico-chemical treatment facility under observation of official regulations.
Do not empty into drains.

**Contaminated packaging**

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific

to the industry and process.
Handle contaminated packages in the same way as the substance itself.

## 14. Transport information

**U.S. DOT 49 CFR 172.101**

| | |
|---|---|
| **UN number or ID number:** | UN 3264 |
| **Proper shipping name:** | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.(nitric acid) |
| **Transport hazard class(es):** | 8 |
| **Packing group:** | II |
| Hazard label: | 8 |
| Special Provisions: | 386, B2, IB2, T11, TP2, TP27 |
| Limited quantity: | 30 L |

**Marine transport (IMDG)**

| | |
|---|---|
| **UN number or ID number:** | UN 3264 |
| **UN proper shipping name:** | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.(nitric acid) |
| **Transport hazard class(es):** | 8 |
| **Packing group:** | II |
| Hazard label: | 8 |
| Special Provisions: | 274 |
| Limited quantity: | 1 L |
| Excepted quantity: | E2 |
| EmS: | F-A, S-B |
| Segregation group: | 1 - acids |

**Air transport (ICAO-TI/IATA-DGR)**

| | |
|---|---|
| **UN number or ID number:** | UN 3264 |
| **UN proper shipping name:** | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.(nitric acid) |
| **Transport hazard class(es):** | 8 |
| **Packing group:** | II |
| Hazard label: | 8 |
| Special Provisions: | A3 A803 |
| Limited quantity Passenger: | 0.5 L |
| Passenger LQ: | Y840 |
| Excepted quantity: | E2 |
| IATA-packing instructions - Passenger: | 851 |
| IATA-max. quantity - Passenger: | 1 L |
| IATA-packing instructions - Cargo: | 855 |
| IATA-max. quantity - Cargo: | 30 L |

**Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

## 15. Regulatory information

**U.S. Regulations**

**National regulatory information**

SARA Section 302 Extremely hazardous substances:
Nitric acid (conc. < 80%) (7697-37-2): Reportable quantity = 1,000 lbs., Threshold planning quantity = 1,000 lbs.
Mercuric oxide (21908-53-2): Reportable quantity = 500 lbs., Threshold planning quantity = 500/10,000 lbs.
SARA Section 304 CERCLA:
Nitric acid (conc. < 80%) (7697-37-2): Reportable quantity = 1,000 (454) lbs. (kg)
SARA Section 311/312 Hazards:
Nitric acid (conc. < 80%) (7697-37-2): Fire hazard, Immediate (acute) health hazard

Mercuric oxide (21908-53-2): Immediate (acute) health hazard, Delayed (chronic) health hazard

SARA Section 313 Toxic release inventory:

Nitric acid (conc. < 80%) (7697-37-2): De minimis limit = 1.0 %, Reportable threshold = Standard

Mercuric oxide (21908-53-2): De minimis limit = None, Reportable threshold = Standard

Clean Air Act Section 112(b):

Mercuric oxide (21908-53-2)

**State Regulations**

**Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

WARNING: This product can expose you to chemicals including Mercury and mercury compounds (developmental), which are known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

## 16. Other information

| | |
|---|---|
| Revision date: | 09/01/2025 |
| Revision No: | 1,00 |

**Other data**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.
The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.
The receiver of our product is singularly responsible for adhering to existing laws and regulations.
Provide appropriate information, instructions and training to users.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*