

according to Regulation (EC) No 1907/2006

**Barium standard 1.000g Ba/L Ba(NO<sub>3</sub>)<sub>2</sub> in nitric acid 0.5 mol/l for AAS traceable to NIST**

Revision: 24.03.2025

Product code: 03620

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**Barium standard 1.000g Ba/L Ba(NO<sub>3</sub>)<sub>2</sub> in nitric acid 0.5 mol/l for AAS traceable to NIST

UFI: HT0A-D0D3-300G-EWYR

**1.2. Relevant identified uses of the substance or mixture and uses advised against****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).

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

|                         |                                  |                              |
|-------------------------|----------------------------------|------------------------------|
| Company name:           | AnalytiChem GmbH                 |                              |
|                         | ACD                              |                              |
| Street:                 | Stempelstraße 6                  |                              |
| Place:                  | D-47167 Duisburg                 |                              |
| Telephone:              | 0203/5194-0                      | Telefax: 0203/5194-290       |
| E-mail:                 | info@analytichem.de              |                              |
| Contact person:         | Abteilung Produktsicherheit      | Telephone: 0203/5194-107/117 |
| E-mail:                 | produktsicherheit@analytichem.de |                              |
| Internet:               | www.analytichem.de               |                              |
| Responsible Department: | Abteilung Produktsicherheit      |                              |

**1.4. Emergency telephone number:**

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

**Further Information**

This product is a mixture. REACH Registration Number see section 3.

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Met. Corr. 1; H290

Skin Irrit. 2; H315

Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Hazard components for labelling**

nitric acid

**Signal word:** Danger**Pictograms:**

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**Hazard statements**

|      |                             |
|------|-----------------------------|
| H290 | May be corrosive to metals. |
| H315 | Causes skin irritation.     |
| H318 | Causes serious eye damage.  |

**Precautionary statements**

|                |                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| P280           | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.                                    |
| P302+P352      | IF ON SKIN: Wash with plenty of water and soap.                                                                                  |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310           | Immediately call a POISON CENTER/doctor.                                                                                         |

**2.3. Other hazards**

No data available

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Chemical characterization**

Mixtures in aqueous solution

**Relevant ingredients**

| CAS No     | Chemical name                                                                                      |              |                  | Quantity  |
|------------|----------------------------------------------------------------------------------------------------|--------------|------------------|-----------|
|            | EC No                                                                                              | Index No     | REACH No         |           |
|            | Classification (Regulation (EC) No 1272/2008)                                                      |              |                  |           |
| 7697-37-2  | nitric acid                                                                                        |              |                  | 1 - < 5 % |
|            | 231-714-2                                                                                          | 007-030-00-3 | 01-2119487297-23 |           |
|            | Ox. Liq. 3, Met. Corr. 1, Acute Tox. 3, Skin Corr. 1A, Eye Dam. 1; H272 H290 H331 H314 H318 EUH071 |              |                  |           |
| 10022-31-8 | bariumnitrat                                                                                       |              |                  | < 1 %     |
|            | 233-020-5                                                                                          | 056-002-00-7 |                  |           |
|            | Ox. Sol. 2, Acute Tox. 3, Acute Tox. 4, Eye Irrit. 2; H272 H301 H332 H319                          |              |                  |           |

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

| CAS No     | EC No     | Chemical name                                                                                                                       | Quantity  |
|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------|-----------|
|            |           | Specific Conc. Limits, M-factors and ATE                                                                                            |           |
| 7697-37-2  | 231-714-2 | nitric acid                                                                                                                         | 1 - < 5 % |
|            |           | inhalation: ATE 2,65 mg/l (vapours) Ox. Liq. 3; H272: >= 65 - 100 Skin Corr. 1A; H314: >= 20 - 100 Skin Corr. 1B; H314: >= 5 - < 20 |           |
| 10022-31-8 | 233-020-5 | bariumnitrat                                                                                                                        | < 1 %     |
|            |           | inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); oral: LD50 = > 50 - < 300 mg/kg                   |           |

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

No data available

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**After inhalation**

Provide fresh air.

**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.

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

Irritant

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

No data available

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

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

**Unsuitable extinguishing media**

no restriction

**5.2. Special hazards arising from the substance or mixture**

Non-combustible liquids

Hazardous combustion products

In case of fire may be liberated:

Nitrogen oxides (NO<sub>x</sub>)**5.3. Advice for firefighters**

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.

Use water spray jet to protect personnel and to cool endangered containers.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Corrosive to metals.

**For non-emergency personnel**

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

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Consult an expert

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

**For emergency responders**

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

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. 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/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. 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 vapour/aerosol.

**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 vapour/aerosol.

**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.

**7.2. 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

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**Further information on storage conditions**

Keep container tightly closed.

**7.3. Specific end use(s)**

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational exposure limits**

| CAS No    | Substance   | ppm | mg/m <sup>3</sup> | fib/cm <sup>3</sup> | Category      | Origin |
|-----------|-------------|-----|-------------------|---------------------|---------------|--------|
| 7697-37-2 | Nitric acid | 1   | 2.6               |                     | STEL (15 min) |        |

**DNEL/DMEL values**

| CAS No                   | Substance    |                |          |                    |
|--------------------------|--------------|----------------|----------|--------------------|
| DNEL type                |              | Exposure route | Effect   | Value              |
| 10022-31-8               | bariumnitrat |                |          |                    |
| Worker DNEL, long-term   |              | inhalation     | systemic | 2,73 mg/m³         |
| Worker DNEL, long-term   |              | dermal         | systemic | 8,141 mg/kg bw/day |
| Consumer DNEL, long-term |              | inhalation     | systemic | 0,67 mg/m³         |
| Consumer DNEL, long-term |              | dermal         | systemic | 4,07 mg/kg bw/day  |
| Consumer DNEL, long-term |              | oral           | systemic | 0,58 mg/kg bw/day  |

**PNEC values**

| CAS No                                           | Substance    | Value       |
|--------------------------------------------------|--------------|-------------|
| 10022-31-8                                       | bariumnitrat |             |
| Freshwater                                       |              | 0,115 mg/l  |
| Freshwater sediment                              |              | 600 mg/kg   |
| Micro-organisms in sewage treatment plants (STP) |              | 62,2 mg/l   |
| Soil                                             |              | 207,7 mg/kg |

**8.2. 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.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

goggles

Wear eye/face protection.

**Hand protection**

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

By long-term hand contact

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Recommended glove articles: KCL 741 Dermatrill® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with permanent contact: > 480 min

By short-term hand contact  
Recommended glove articles: KCL 741 Dermatrill® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

#### Skin protection

Wear suitable protective clothing. Take off immediately all contaminated clothing.  
Wash hands before breaks and after work.  
The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

#### Respiratory protection

Respiratory protection necessary at: aerosol or mist formation  
The entrepreneur 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.

#### Environmental exposure controls

Do not allow to enter into surface water or drains.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                                                           |                     |
|-----------------------------------------------------------|---------------------|
| Physical state:                                           | Liquid              |
| Colour:                                                   | colourless          |
| Odour:                                                    | odourless           |
| 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:                                                 | <1                  |
| Viscosity / kinematic:                                    | No data available   |
| Water solubility:                                         | completely miscible |
| 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   |
| Vapour pressure:                                          | No data available   |

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|                           |                          |
|---------------------------|--------------------------|
| Vapour pressure:          | No data available        |
| Density:                  | 1,0165 g/cm <sup>3</sup> |
| Relative density:         | No data available        |
| Bulk density:             | No data available        |
| Relative vapour density:  | No data available        |
| Particle characteristics: | No data available        |

**9.2. 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**

Oxidizing

**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.

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

Corrosive to metals.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Alkali (lye)

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

**10.4. Conditions to avoid**

No data available

**10.5. Incompatible materials**

Cellulose

Metal

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

**10.6. Hazardous decomposition products**

In case of fire may be liberated:

SECTION 5: Firefighting measures

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**Further information**

No data available

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Toxicokinetics, 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) &gt; 2000 mg/kg; ATE (dermal) &gt; 2000 mg/kg; ATE (inhalation vapour) &gt; 20 mg/l; ATE (inhalation dust/mist) &gt; 5 mg/l

| CAS No     | Chemical name        |                         |         |                     |                    |
|------------|----------------------|-------------------------|---------|---------------------|--------------------|
|            | Exposure route       | Dose                    | Species | Source              | Method             |
| 7697-37-2  | nitric acid          |                         |         |                     |                    |
|            | inhalation vapour    | ATE 2,65 mg/l           |         |                     |                    |
| 10022-31-8 | bariumnitrat         |                         |         |                     |                    |
|            | oral                 | LD50 > 50 - < 300 mg/kg | Rat     | Study report (2013) | OECD Guideline 423 |
|            | inhalation vapour    | ATE 11 mg/l             |         |                     |                    |
|            | inhalation dust/mist | ATE 1,5 mg/l            |         |                     |                    |

**Irritation and corrosivity**

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye damage.

**Sensitising 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.

**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**Information on likely routes of exposure**

There are no data available on the mixture itself.

**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.

**11.2. Information on other hazards**

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**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.

**SECTION 12: Ecological information****12.1. Toxicity**

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

| CAS No     | Chemical name            |                      |           |                                                     |                                         |                                           |
|------------|--------------------------|----------------------|-----------|-----------------------------------------------------|-----------------------------------------|-------------------------------------------|
|            | Aquatic toxicity         | Dose                 | [h]   [d] | Species                                             | Source                                  | Method                                    |
| 7697-37-2  | nitric acid              |                      |           |                                                     |                                         |                                           |
|            | Acute fish toxicity      | LC50 1559 mg/l       | 96 h      | Topeka shiner                                       | Environmental Toxicology and Chemistry, | other: ASTM E729-26                       |
|            | Fish toxicity            | NOEC 268 mg/l        | 30 d      | juvenile Topeka shiner and with juvenile Fathead m  | Study report (2009)                     | Growth tests estimated the test chemical  |
|            | Algae toxicity           | NOEC > 419 mg/l      | 10 d      | several benthic diatoms; see results                | Marine Biology 43:307-315 (1977)        | Ten cultures of benthic diatoms were iso  |
|            | Acute bacteria toxicity  | EC50 > 1000 mg/l ( ) | 3 h       | Activated sludge                                    | Study report (2008)                     | OECD Guideline 209                        |
| 10022-31-8 | bariumnitrat             |                      |           |                                                     |                                         |                                           |
|            | Acute fish toxicity      | LC50 > 3,5 mg/l      | 96 h      | Danio rerio                                         | Study report (2010)                     | OECD Guideline 203                        |
|            | Acute algae toxicity     | ErC50 > 1,15 mg/l    | 72 h      | Pseudokirchneriella subcapitata                     | Study report (2010)                     | OECD Guideline 201                        |
|            | Acute crustacea toxicity | EC50 14,5 mg/l       | 48 h      | Daphnia magna                                       | Journal of the Fisheries Research Board | Not a guideline study but meets generell  |
|            | Fish toxicity            | NOEC >= 100 mg/l     | 33 d      | Danio rerio                                         | Study report (2014)                     | OECD Guideline 210                        |
|            | Crustacea toxicity       | NOEC 2,9 mg/l        | 21 d      | Daphnia magna                                       | Journal of the Fisheries Research Board | The test did not exactly follow an existi |
|            | Acute bacteria toxicity  | EC50 > 1000 mg/l ( ) | 3 h       | activated sludge of a predominantly domestic sewage | Study report (2010)                     | OECD Guideline 209                        |

**12.2. Persistence and degradability**

There are no data available on the mixture itself.

**12.3. Bioaccumulative potential**

There are no data available on the mixture itself.

**BCF**

| CAS No     | Chemical name | BCF  | Species             | Source               |
|------------|---------------|------|---------------------|----------------------|
| 10022-31-8 | bariumnitrat  | 68,4 | Lepomis macrochirus | Archives of Environm |

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**12.4. Mobility in soil**

There are no data available on the mixture itself.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. 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.

**12.7. 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.

**SECTION 13: Disposal considerations****13.1. 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.

**SECTION 14: Transport information****Land transport (ADR/RID)**

|                                          |                                                           |
|------------------------------------------|-----------------------------------------------------------|
| <b>14.1. UN number or ID number:</b>     | UN 3264                                                   |
| <b>14.2. UN proper shipping name:</b>    | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid) |
| <b>14.3. Transport hazard class(es):</b> | 8                                                         |
| <b>14.4. Packing group:</b>              | III                                                       |
| Hazard label:                            | 8                                                         |
| Classification code:                     | C1                                                        |
| Special Provisions:                      | 274                                                       |
| Limited quantity:                        | 5 L                                                       |
| Excepted quantity:                       | E1                                                        |
| Transport category:                      | 3                                                         |
| Hazard No:                               | 80                                                        |
| Tunnel restriction code:                 | E                                                         |

**Inland waterways transport (ADN)**

|                                          |                                                           |
|------------------------------------------|-----------------------------------------------------------|
| <b>14.1. UN number or ID number:</b>     | UN 3264                                                   |
| <b>14.2. UN proper shipping name:</b>    | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid) |
| <b>14.3. Transport hazard class(es):</b> | 8                                                         |
| <b>14.4. Packing group:</b>              | III                                                       |
| Hazard label:                            | 8                                                         |
| Classification code:                     | C1                                                        |
| Special Provisions:                      | 274                                                       |
| Limited quantity:                        | 5 L                                                       |
| Excepted quantity:                       | E1                                                        |

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**Marine transport (IMDG)**

|                                          |                                                           |
|------------------------------------------|-----------------------------------------------------------|
| <b>14.1. UN number or ID number:</b>     | UN 3264                                                   |
| <b>14.2. UN proper shipping name:</b>    | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid) |
| <b>14.3. Transport hazard class(es):</b> | 8                                                         |
| <b>14.4. Packing group:</b>              | III                                                       |
| Hazard label:                            | 8                                                         |
| Special Provisions:                      | 223, 274                                                  |
| Limited quantity:                        | 5 L                                                       |
| Excepted quantity:                       | E1                                                        |
| EmS:                                     | F-A, S-B                                                  |

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

|                                          |                                                           |
|------------------------------------------|-----------------------------------------------------------|
| <b>14.1. UN number or ID number:</b>     | UN 3264                                                   |
| <b>14.2. UN proper shipping name:</b>    | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid) |
| <b>14.3. Transport hazard class(es):</b> | 8                                                         |
| <b>14.4. Packing group:</b>              | III                                                       |
| Hazard label:                            | 8                                                         |
| Special Provisions:                      | A3 A803                                                   |
| Limited quantity Passenger:              | 1 L                                                       |
| Passenger LQ:                            | Y841                                                      |
| Excepted quantity:                       | E1                                                        |
| IATA-packing instructions - Passenger:   | 852                                                       |
| IATA-max. quantity - Passenger:          | 5 L                                                       |
| IATA-packing instructions - Cargo:       | 856                                                       |
| IATA-max. quantity - Cargo:              | 60 L                                                      |

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Marketing and use of explosives precursors (Regulation (EU) 2019/1148):

Acquisition, introduction, possession or use of this product by the general public is restricted by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 1,9,12.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

**Barium standard 1.000g Ba/L Ba(NO<sub>3</sub>)<sub>2</sub> in nitric acid 0.5 mol/l for AAS traceable to NIST**

Revision: 24.03.2025

Product code: 03620

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**Abbreviations and acronyms**

- Ox. Liq. 3: Oxidising liquids, hazard category 3
- Ox. Sol. 2: Oxidising solids, hazard category 2
- Met. Corr. 1: Corrosive to metals, hazard category 1
- Acute Tox. 3: Acute toxicity, hazard category 3
- Skin Corr. 1A: Skin corrosion, sub-category 1A
- Skin Irrit. 2: Skin irritation, hazard category 2
- Eye Dam. 1: Serious eye damage, hazard category 1
- Eye Irrit. 2: Eye irritation, hazard category 2

**Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]**

| Classification      | Classification procedure |
|---------------------|--------------------------|
| Met. Corr. 1; H290  | On basis of test data    |
| Skin Irrit. 2; H315 | Calculation method       |
| Eye Dam. 1; H318    | Calculation method       |

**Relevant H and EUH statements (number and full text)**

- H272 May intensify fire; oxidiser.
- H290 May be corrosive to metals.
- H301 Toxic if swallowed.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H332 Harmful if inhaled.
- EUH071 Corrosive to the respiratory tract.

**Further Information**

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.)*