

| Nickel Standard 1.000g Ni/L Ni(NO3)2 * 6 H2O in nitric acid 0,5 mol/l for AAS - traceable to NIST | | | | | | | | |
|---|---|---------------------------------------|--------------|--|--|--|--|--|
| Revision date: 10.03.2025 | Product code: 03633 | • | Page 1 of 14 | | | | | |
| SECTION 1: Identification of the substance/mixture and of the company/undertaking | | | | | | | | |
| <u>1.1. Product identifier</u> Nickel Standard 1.000g Ni/L Ni(NO3)2 * 6 H2O in nitric acid 0,5 mol/l for AAS - traceable to NIST | | | | | | | | |
| UFI: | 2X1A-Y0C8-200X-0CJK | | | | | | | |
| 1.2. Relevant identified uses of the s | ubstance or mixture and uses advised | against | | | | | | |
| | | | | | | | | |
| Uses advised against | | | | | | | | |
| Do not use for private purposes | (household). | | | | | | | |
| 1.3. Details of the supplier of the safe | ety data sheet | | | | | | | |
| Company name: | AnalytiChem GmbH ACD | | | | | | | |
| Street: Place: | Stempelstraße 6 D-47167 Duisburg | | | | | | | |
| Telephone: E-mail: | 0203/5194-0 info@analytichem.de | Telefax:0203/5194-290 | | | | | | |
| Contact person: E-mail: Internet: Responsible Department: | Abteilung Produktsicherheit produktsicherheit@analytichem.de www.analytichem.de Abteilung Produktsicherheit | Telephone:0203/5194-107/117 | | | | | | |
| <u>1.4. Emergency telephone</u> number: | For Hazardous Materials [or Dangero Exposure, or Accident Call CHEMTRI 1-800-424-9300 Outside USA and Ca accepted) | EC Day or Night Within USA and Canada | 1: | | | | | |
| 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 Skin Sens. 1; H317 Carc. 1A; H350i Repr. 1B; H360D STOT RE 2; H373 Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

Danger

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

nitric acid, nickel dinitrate

Signal word:



Nickel Standard 1.000g Ni/L Ni(NO3)2 * 6 H2O in nitric acid 0,5 mol/l for AAS - traceable to

Revision date: 10.03.2025

Pictograms:

NIST Product code: 03633

Page 2 of 14



Hazard statements

| H290 | May be corrosive to metals. |
|-------|--|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H350i | May cause cancer by inhalation. |
| H360D | May damage the unborn child. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H412 | Harmful to aquatic life with long lasting effects. |

Precautionary statements

| P201 | Obtain special instructions before use. |
|----------------|--|
| 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. |
| P308+P311 | IF exposed or concerned: Call a POISON CENTER/doctor. |

Special labelling of certain mixtures

Restricted to professional users.

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 | | | | |
|------------|--|-----------------------|------------------|-----------|--|
| | EC No | Index No | REACH No | | |
| | Classification (Regulation (EC) N | o 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 To EUH071 | 2 H290 H331 H314 H318 | | | |
| 13138-45-9 | nickel dinitrate | | | < 1 % | |
| | 236-068-5 | 028-012-00-1 | 01-2119492333-38 | | |
| | Ox. Sol. 2, Carc. 1A, Muta. 2, Repr. 1B, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Resp. Sens. 1, Skin Sens. 1, STOT RE 1, Aquatic Acute 1, Aquatic Chronic 1; H272 H350i H341 H360D H332 H302 H315 H318 H334 H317 H372 H400 H410 | | | | |

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



Nickel Standard 1.000g Ni/L Ni(NO3)2 * 6 H2O in nitric acid 0,5 mol/l for AAS - traceable to

NIST

Revision date: 10.03.2025

Product code: 03633

Page 3 of 14

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 | | | |
| 13138-45-9 | 236-068-5 | nickel dinitrate | < 1 % | |
| | 361,9 mg/kg S | • | | |

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

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.

After ingestion

Rinse mouth immediately and drink plenty of water. Call a physician immediately.

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

Irritant

Allergic reactions

4.3. Indication of any immediate medical attention and special treatment needed No data available

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



Nickel Standard 1.000g Ni/L Ni(NO3)2 * 6 H2O in nitric acid 0,5 mol/l for AAS - traceable to

NIST

Revision date: 10.03.2025

Product code: 03633

Page 4 of 14

In case of fire may be liberated: Hydrochloric gas Metal oxide smoke, toxic

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit. 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 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

If handled uncovered, arrangements with local exhaust ventilation have to be used. Read label before use. Handle and open container with care. When using do not eat, drink, smoke, sniff. Keep container tightly closed.



Nickel Standard 1.000g Ni/L Ni(NO3)2 * 6 H2O in nitric acid 0,5 mol/l for AAS - traceable to

NIST

Revision date: 10.03.2025

Product code: 03633

Page 5 of 14

Use personal protection equipment. Use extractor hood (laboratory). Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

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. 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.

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

Keep container tightly closed. Store in a place accessible by authorized persons only.

Hints on joint storage

national regulations

Further information on storage conditions

Unsuitable container/equipment material: Metal

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/m³ | fib/cm³ | 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 | | | | |
| 13138-45-9 | nickel dinitrate | | | | | | | |
| Consumer DN | IEL, acute | oral | systemic | 0,012 mg/kg bw/day | | | | |
| Consumer DNEL, long-term | | oral | systemic | 0,02 mg/kg bw/day | | | | |
| Worker DNEL, acute | | inhalation | systemic | 104 mg/m ³ | | | | |
| Worker DNEL, acute | | inhalation | local | 1,6 mg/m³ | | | | |
| Consumer DNEL, acute | | inhalation | systemic | 8,8 mg/m³ | | | | |
| Consumer DNEL, acute | | inhalation | local | 0,1 mg/m³ | | | | |



Nickel Standard 1.000g Ni/L Ni(NO3)2 * 6 H2O in nitric acid 0,5 mol/l for AAS - traceable to

NIST

Revision date: 10.03.2025

Product code: 03633

Page 6 of 14

PNEC values

| CAS No | Substance | | | | | |
|--|---------------------------------|-------------|--|--|--|--|
| Environmenta | Environmental compartment Value | | | | | |
| 13138-45-9 | nickel dinitrate | | | | | |
| Freshwater | | 0,0071 mg/l | | | | |
| Freshwater (intermittent releases) 0 mg/l | | | | | | |
| Marine water 0,0086 mg/ | | | | | | |
| Freshwater sediment 109 mg/kg | | | | | | |
| Marine sedime | 109 mg/kg | | | | | |
| Secondary poisoning 0,12 mg/ | | | | | | |
| Micro-organisms in sewage treatment plants (STP) 0,33 mg/l | | | | | | |
| Soil | 29,9 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. Do not breathe gas/fumes/vapour/spray.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: Face protection shield goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. 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. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

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

By long-term hand contact

Recommended glove articles: KCL 741 Dermatril® 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 Dermatril® 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).



Nickel Standard 1.000g Ni/L Ni(NO3)2 * 6 H2O in nitric acid 0,5 mol/l for AAS - traceable to

NIST

Page 7 of 14

Revision date: 10.03.2025

Product code: 03633

Skin protection

Wear suitable protective clothing. Protective clothing acid-resistant

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.

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: | light green | |
| Odour: | odourless | |
| Odour threshold: | No data available | |
| Melting point/freezing point: | | No data available |
| Boiling point or initial boiling point and | | No data available |
| boiling range: | | |
| Flammability: | | not applicable |
| Lower explosion limits: | | No data available |
| Upper explosion limits: | | No data available |
| Flash point: | | Х |
| Auto-ignition temperature: | | No data available |
| Decomposition temperature: | | No data available |
| pH-Value: | | 0,7 |
| Viscosity / kinematic: | | No data available |
| Water solubility: | | easily soluble |
| Solubility in other solvents | | - |
| not determined | | |
| Dissolution rate: | | No data available |
| Partition coefficient n-octanol/water: | | No data available |
| Dispersion stability: | | No data available |
| Vapour pressure: | | No data available |
| Vapour pressure: | | No data available |
| Density: | | 1,0173 g/cm³ |
| 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 h | nazard classes | |
| Explosive properties | | |
| No data available | | |
| Sustaining combustion: | | No data available |
| Self-ignition temperature | | |
| Solid: | | not applicable |
| Gas: | | not applicable |
| Oxidizing properties | | |
| No data available | | |



Re

according to Regulation (EC) No 1907/2006

Nickel Standard 1.000g Ni/L Ni(NO3)2 * 6 H2O in nitric acid 0,5 mol/l for AAS - traceable to

| | NIST | |
|------------------------------|---------------------|--------------|
| Revision date: 10.03.2025 | Product code: 03633 | Page 8 of 14 |
| 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

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

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Keep away from: 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

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l



Revision date: 10.03.2025

according to Regulation (EC) No 1907/2006

Nickel Standard 1.000g Ni/L Ni(NO3)2 * 6 H2O in nitric acid 0,5 mol/l for AAS - traceable to

NIST

Product code: 03633

Page 9 of 14

| CAS No | Chemical name | | | | | | | | | |
|------------|----------------------|------------------|----------|---------|--|--------------------|--|--|--|--|
| | Exposure route | Dose | | Species | Source | Method | | | | |
| 7697-37-2 | nitric acid | | | | | | | | | |
| | inhalation vapour | ATE 2,65 r | ng/l | | | | | | | |
| 13138-45-9 | nickel dinitrate | nickel dinitrate | | | | | | | | |
| | oral | LD50 mg/kg | 361,9 | Rat | Regul Toxicol and Pharmacol (doi.org/10. | OECD Guideline 425 | | | | |
| | 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

May cause an allergic skin reaction. (nickel dinitrate)

Carcinogenic/mutagenic/toxic effects for reproduction

May cause cancer by inhalation. (nickel dinitrate)

May damage the unborn child. (nickel dinitrate)

Germ cell mutagenicity: 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

May cause damage to organs through prolonged or repeated exposure. (nickel dinitrate)

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

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

Irritant

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.



Nickel Standard 1.000g Ni/L Ni(NO3)2 * 6 H2O in nitric acid 0,5 mol/l for AAS - traceable to NIST

Revision date: 10.03.2025

Product code: 03633

Page 10 of 14

| CAS No | Chemical name | Chemical name | | | | | | |
|------------|--------------------------|----------------|-----------|-----------|--|---|--|--|
| | Aquatic toxicity | Dose | | [h] [d] | Species | Source | Method | |
| 7697-37-2 | nitric acid | | | | | | | |
| | Acute fish toxicity | LC50 mg/l | 1559 | 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 mg/l | > 419 | 10 d | several benthic diatoms; see results | Marine Biology 43:307-315 (1977) | Ten cultures of benthic diatoms were iso | |
| | Acute bacteria toxicity | EC50 mg/l() | > 1000 | 3 h | Activated sludge | Study report (2008) | OECD Guideline 209 | |
| 13138-45-9 | nickel dinitrate | | | | | | | |
| | Acute fish toxicity | LC50 mg/l | 15,3 | 96 h | Oncorhynchus mykiss | Aquatic Toxicology 63 (2003) 65-82 (2003 | other: not reported | |
| | Acute algae toxicity | ErC50 mg/l | 0,237 | 72 h | Ankistrodesmus falcatus | Publication (2009) | OECD Guideline 201 | |
| | Acute crustacea toxicity | EC50 mg/l | 0,2663 | 48 h | Ceriodaphnia dubia | Study report (2004) | other: American society of testing and m | |
| | Fish toxicity | NOEC mg/l | 0,057 | 32 d | Pimephales promelas | Water Resources Research Institute. Kent | other: ASTM 1980, E-729 | |
| | Algae toxicity | NOEC | 0,6 mg/l | 14 d | Anabaena cylindrica | Environ. Pollut. (Series A). 25(4):241-2 | other: not reported | |
| | Crustacea toxicity | NOEC mg/l | 0,04 | 42 d | Daphnia magna | Wat. Res. 24(7):845-852 (1990) | Chronic exposure to sublethal concentrat | |
| | Acute bacteria toxicity | EC50) | 33 mg/l (| 0,5 h | Activated sludge | Journal of Hazardous Materials. B139:332 | ISO 8192 | |

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 |
|------------|------------------|-----|---------------------|----------------------|
| 13138-45-9 | nickel dinitrate | 23 | Spirodela polyrhiza | Ecotoxicology and en |

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.



Nickel Standard 1.000g Ni/L Ni(NO3)2 * 6 H2O in nitric acid 0,5 mol/l for AAS - traceable to

NIST

Product code: 03633

Page 11 of 14

12.7. Other adverse effects

Revision date: 10.03.2025

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 empty into 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

This material and its container must be disposed of as hazardous waste. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

Land transport (ADR/RID)

| <u>14.1. UN number or ID number:</u> | UN 3264 |
|--------------------------------------|---|
| 14.2. UN proper shipping name: | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid) |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | 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) | |
| 14.1. UN number or ID number: | UN 3264 |
| 14.2. UN proper shipping name: | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid) |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | III |
| Hazard label: | 8 |
| Classification code: | C1 |
| Special Provisions: | 274 |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |
| Marine transport (IMDG) | |
| <u>14.1. UN number or ID number:</u> | UN 3264 |
| 14.2. UN proper shipping name: | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid) |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | III |
| Hazard label: | 8 |
| Special Provisions: | 223, 274 |
| Limited quantity: | 5 L |
| | |



| Nickel Standard 1.000g Ni/L Ni(NO3)2 * 6 H2O in nitric acid 0,5 mol/l for AAS - traceable to NIST | | | | |
|--|--|---------------|--|--|
| Revision date: 10.03.2025 | Product code: 03633 | Page 12 of 14 | | |
| Excepted quantity: EmS: | E1 F-A, S-B | | | |
| Air transport (ICAO-TI/IATA-DGR) 14.1. UN number or ID number: 14.2. UN proper shipping name: 14.3. Transport hazard class(es): 14.4. Packing group: Hazard label: Special Provisions: Limited quantity Passenger: Passenger LQ: Excepted quantity: IATA-packing instructions - Passenger: IATA-packing instructions - Passenger: IATA-packing instructions - Cargo: IATA-max. quantity - Cargo: 14.5. Environmental hazards ENVIRONMENTALLY HAZARDOUS: | UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid) 8 III 8 A3 A803 1 L Y841 E1 852 5 L 856 60 L | | | |
| SECTION 15: Regulatory information | | | | |
| | lations/legislation specific for the substance or mixture | | | |
| Information according to Directive 2012/18/EU (SEVESO III): Marketing and use of explosives precursor Acquisition, introduction, possession o | Not subject to 2012/18/EU (SEVESO III) rs (Regulation (EU) 2019/1148): r use of this product by the general public is restricted by Regulation ctions, and significant disappearances and thefts should be reported to | | | |
| National regulatory information | | | | |
| Employment restrictions: | Observe restrictions to employment for juveniles according to the 'juv work protection guideline' (94/33/EC). Observe employment restriction under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. | ns | | |
| Water hazard class (D): | 2 - obviously hazardous to water | | | |
| SECTION 16: Other information | | | | |

Changes

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



Revision date: 10.03.2025

Nickel Standard 1.000g Ni/L Ni(NO3)2 * 6 H2O in nitric acid 0,5 mol/l for AAS - traceable to

Product code: 03633

according to Regulation (EC) No 1907/2006

NIST

Page 13 of 14

Abbreviations and acronyms

Ox. Liq: Oxidising liquid Ox. Sol: Oxidising solid Met. Corr: Substance or mixture corrosive to metals Acute Tox: Acute toxicity Skin Corr: Skin corrosion Skin Irrit: Skin irritation Eye Dam: Eye damage Resp. Sens: Respiratory sensitisation Skin Sens: Skin sensitisation Muta: Germ cell mutagenicity Carc: Carcinogenicity Repr: Reproductive toxicity STOT RE: Specific target organ toxicity - repeated exposure Aquatic Acute: Acute aquatic hazard Aquatic Chronic: Chronic aquatic hazard ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service LC50: Lethal concentration. 50% LD50: Lethal dose, 50%

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 |
| Skin Sens. 1; H317 | Calculation method |
| Carc. 1A; H350i | Calculation method |
| Repr. 1B; H360D | Calculation method |
| STOT RE 2; H373 | Calculation method |
| Aquatic Chronic 3; H412 | Calculation method |

Relevant H and EUH statements (number and full text)

| H272 | May intensify fire; oxidiser. |
|-------|--|
| H290 | May be corrosive to metals. |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H331 | Toxic if inhaled. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H341 | Suspected of causing genetic defects. |
| H350i | May cause cancer by inhalation. |
| H360D | May damage the unborn child. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| | |



Rev

according to Regulation (EC) No 1907/2006

Nickel Standard 1.000g Ni/L Ni(NO3)2 * 6 H2O in nitric acid 0,5 mol/l for AAS - traceable to NIST

| vision date: 10.03.2025 | Product code: 03633 | Page 14 of 14 |
|-------------------------|--|---------------|
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| H400 | Very toxic to aquatic life. | |
| H410 | Very toxic to aquatic life with long lasting effects. | |
| H412 | Harmful to aquatic life with long lasting effects. | |
| 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. 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.)