

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Mercury(II) nitrate solution 0.01 mol/l - 0.02 N solution

Revision date: 23.08.2022

Product code: 21212

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#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

Mercury(II) nitrate solution 0.01 mol/l - 0.02 N solution

UFI: 65RV-A1TQ-900G-AF9Q

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

###### Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

###### Uses advised against

Do not use for private purposes (household).

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

|                         |                                 |                              |
|-------------------------|---------------------------------|------------------------------|
| Company name:           | Fa. Bernd Kraft GmbH            |                              |
| Street:                 | Stempelstraße 6                 |                              |
| Place:                  | D-47167 Duisburg                |                              |
| Telephone:              | 0203/5194-0                     | Telefax: 0203/5194-290       |
| e-mail:                 | info@berndkraft.de              |                              |
| Contact person:         | Abteilung Produktsicherheit     | Telephone: 0203/5194-107/117 |
| e-mail:                 | produktsicherheit@berndkraft.de |                              |
| Internet:               | www.berndkraft.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

Acute Tox. 4; H302

Acute Tox. 4; H312

STOT RE 2; H373

Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

##### 2.2. Label elements

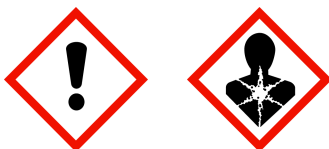
###### Regulation (EC) No 1272/2008

###### Hazard components for labelling

mercury nitrate monohydrate

Signal word: Warning

###### Pictograms:



###### Hazard statements

H302+H312

Harmful if swallowed or in contact with skin.

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H373 May cause damage to organs through prolonged or repeated exposure.  
H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P270 Do not eat, drink or smoke when using this product.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P330 Rinse mouth.  
P362+P364 Take off contaminated clothing and wash it before reuse.

**2.3. Other hazards**

No data available

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**Chemical characterization**

Mixtures in aqueous solution

**Hazardous components**

| CAS No    | Chemical name  | Quantity |
|-----------|--|----------|
|           | EC No  |          |
|           | Index No   |          |
|           | REACH No   |          |
|           | Classification (Regulation (EC) No 1272/2008)  |          |
| 7783-34-8 | mercury nitrate monohydrate  | < 1 %    |
|           | 233-152-3  |          |
|           | 080-002-00-6   |          |
|           | Acute Tox. 1, Acute Tox. 2, Acute Tox. 2, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1; H310 H330 H300 H373 H400 H410 |          |

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   |          |
| 7783-34-8 | 233-152-3 | mercury nitrate monohydrate  | < 1 %    |
|           |           | inhalation: ATE = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); dermal: ATE = 5 mg/kg; oral: ATE = 5 mg/kg STOT RE 2; H373: >= 0,1 - 100 |          |

**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.

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**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.  
Water, to which activated charcoal may be added  
Call a physician immediately.

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

Irritant, Vomiting, Cardiac arrhythmias  
Gastrointestinal complaints, Abdominal pain  
Blood pressure drop, Circulatory collapse, Methaemoglobinaemia

**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:  
mercury and its compounds  
Nitrogen oxides (NOx)

**5.3. Advice for firefighters**

Do not inhale explosion and combustion gases.  
Avoid contact with skin, eyes and clothes.  
In case of fire: Wear self-contained breathing apparatus.

**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.

**SECTION 6: Accidental release measures**

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

**General advice**

Do not breathe vapour/aerosol.

**For non-emergency personnel**

Provide adequate ventilation.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Remove persons to safety.  
Emergency procedures  
Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

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

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**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.
- Do not breathe vapour/aerosol.
- When using do not eat, drink, smoke, sniff. Keep container tightly closed.
- 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**

- Keep away from food, drink and animal feedingstuffs. Make available sufficient washing facilities
- 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.

**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.
- If handled uncovered, arrangements with local exhaust ventilation have to be used.

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

**Requirements for storage rooms and vessels**

Store in a well-ventilated place. Keep container tightly closed.

**Further information on storage conditions**

Store in a dry place.

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

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

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**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 vapour/aerosol.

**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

Recommended glove articles: KCL 741 Dermatril® L

Thickness of the glove 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

Thickness of the glove 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.

**Respiratory protection**

Respiratory protection necessary at: aerosol or mist formation

**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  |                   |                   |
| Solid/liquid:   |                   | No data available |
| Gas:  |                   | No data available |
| Lower explosion limits:                                   |                   | No data available |
| Upper explosion limits:                                   |                   | No data available |

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|  |                           |
|--|---------------------------|
| Flash point:                           | not applicable            |
| Auto-ignition temperature:             | No data available         |
| Decomposition temperature:             | No data available         |
| pH-Value (at 20 °C):                   | 1,5                       |
| 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         |
| Vapour pressure:                       | No data available         |
| Vapour pressure:                       | No data available         |
| Density (at 20 °C):                    | 1,00221 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         |                   |
| Sustaining combustion:    | 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**

No data available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No data available

**10.2. Chemical stability**

No data available

**10.3. Possibility of hazardous reactions**

No data available

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**10.4. Conditions to avoid**

No data available

**10.5. Incompatible materials**

No data available

**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**

**Toxicokinetics, metabolism and distribution**

There are no data available on the mixture itself.

**Acute toxicity**

Harmful if swallowed.  
Harmful in contact with skin.

**ATEmix calculated**

ATE (oral) 1540,4 mg/kg; ATE (dermal) 1540,4 mg/kg

| CAS No    | Chemical name               |               |         |        |        |
|-----------|-----------------------------|---------------|---------|--------|--------|
|           | Exposure route              | Dose          | Species | Source | Method |
| 7783-34-8 | mercury nitrate monohydrate |               |         |        |        |
|           | 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**

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

**Sensitising effects**

Based on available data, the classification criteria are not met.  
May cause sensitisation especially in sensitive humans.

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

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. (mercury nitrate monohydrate)

**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.

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**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, Vomiting, Cardiac arrhythmias  
Gastrointestinal complaints, Abdominal pain  
Blood pressure drop, Circulatory collapse, Methaemoglobinaemia

**SECTION 12: Ecological information**

**12.1. Toxicity**

There are no data available on the mixture itself.

**12.2. Persistence and degradability**

The methods for determining the biological degradability are not applicable to inorganic substances.

**12.3. Bioaccumulative potential**

There are no data available on the mixture itself.

**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.

No data available

**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.

There are no data available on the mixture itself.

**12.7. Other adverse effects**

Discharge into the environment must be avoided.

**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.

Do not allow to enter into surface water or drains.

Do not mix with other wastes.

Send to a physico-chemical treatment facility under observation of official regulations.

**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>     | No dangerous good in sense of this transport regulation. |
| <b>14.2. UN proper shipping name:</b>    | No dangerous good in sense of this transport regulation. |
| <b>14.3. Transport hazard class(es):</b> | No dangerous good in sense of this transport regulation. |
| <b>14.4. Packing group:</b>              | No dangerous good in sense of this transport regulation. |



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**Inland waterways transport (ADN)**

- 14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.
- 14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.
- 14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.
- 14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Marine transport (IMDG)**

- 14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.
- 14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.
- 14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.
- 14.4. Packing group:** No dangerous good in sense of this transport regulation.

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

- 14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.
- 14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.
- 14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.
- 14.4. Packing group:** No dangerous good in sense of this transport regulation.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

No dangerous good in sense of this transport regulation.

**14.7. Maritime transport in bulk according to IMO instruments**

No dangerous good in sense of this transport regulation.

**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

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

**Additional information**

SVHC substance.

**National regulatory information**

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.

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.

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

| Classification          | Classification procedure |
|-------------------------|--------------------------|
| Acute Tox. 4; H302      | Calculation method       |
| Acute Tox. 4; H312      | Calculation method       |
| STOT RE 2; H373         | Calculation method       |
| Aquatic Chronic 3; H412 | Calculation method       |

**Safety Data Sheet**

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

|           |  |
|-----------|--|
| H300      | Fatal if swallowed.  |
| H302      | Harmful if swallowed.  |
| H302+H312 | Harmful if swallowed or in contact with skin.                      |
| H310      | Fatal in contact with skin.  |
| H312      | Harmful in contact with skin.                                      |
| H330      | Fatal if inhaled.  |
| 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.                 |

**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.

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