

Safety Data Sheet

according to Regulation (EC) No 1907/2006

282-49 Potassium Hydroxide Standard Solution 8.0N

Revision date: 29.05.2015

Product code: 28249

Page 1 of 8

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

1.1. Product identifier

282-49 Potassium Hydroxide Standard Solution 8.0N

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

Use of the substance/mixture

Water analysis

1.3. Details of the supplier of the safety data sheet

Company name: HACH LANGE GmbH
Street: Willstätterstr. 11
Place: D-40549 Düsseldorf
Telephone: +49 (0)211 5288-383
e-mail: SDS@hach.com
Internet: www.de.hach.com
Responsible Department: HACH LANGE Ltd.
5, Pacific Way
Salford Manchester M50 1DL - United Kingdom
Tel. +44 (0) 161 872 1487 * Fax +44 (0) 161 848 7324
e-Mail: info-uk@hach.com

HACH LANGE Ltd.
Unit 1, Chestnut Road Western Industrial Estate
IRL-Dublin 12
Tel. +353 (0)1 4602522
e-Mail: info-ie@hach.com

1.4. Emergency telephone number:

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Substance or mixture corrosive to metals: Met. Corr. 1

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

May be corrosive to metals.

Harmful if swallowed.

Causes severe skin burns and eye damage.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

potassium hydroxide; caustic potash

Signal word: Danger

Pictograms:



Safety Data Sheet

according to Regulation (EC) No 1907/2006

282-49 Potassium Hydroxide Standard Solution 8.0N

Revision date: 29.05.2015

Product code: 28249

Page 2 of 8

Hazard statements

| | |
|------|--|
| H290 | May be corrosive to metals. |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |

Precautionary statements

| | |
|----------------|--|
| P273 | Avoid release to the environment. |
| P234 | Keep only in original packaging. |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P270 | Do not eat, drink or smoke when using this product. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| P310 | Immediately call a POISON CENTER/doctor. |
| P390 | Absorb spillage to prevent material damage. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container to Disposal. |

Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

| CAS No | Chemical name | Quantity |
|-----------|---|----------|
| | EC No | |
| | Index No | |
| | REACH No | |
| | Classification according to Regulation (EC) No. 1272/2008 [CLP] | |
| 7732-18-5 | Water | 60-70 % |
| | 231-791-2 | |
| | | |
| 1310-58-3 | potassium hydroxide; caustic potash | 30-40 % |
| | 215-181-3 | |
| | 019-002-00-8 | |
| | Acute Tox. 4, Skin Corr. 1A; H302 H314 | |

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take off all contaminated clothing immediately.
Show this safety data sheet to the doctor in attendance.

After inhalation

Move to fresh air. Consult a physician. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

After contact with skin

Wash off immediately with plenty of water for at least 15 minutes. Consult a physician.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

282-49 Potassium Hydroxide Standard Solution 8.0N

Revision date: 29.05.2015

Product code: 28249

Page 3 of 8

Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. Show this safety data sheet to the doctor in attendance.

After contact with eyes

Rinse immediately with plenty of water for at least 15 minutes. Call a physician immediately.

After ingestion

Do NOT induce vomiting. Drink 1 or 2 glasses of water.
Never give anything by mouth to an unconscious person.
Call a physician immediately.

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

Irritation and corrosion

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.
In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

Additional information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste.

6.4. Reference to other sections

13. Disposal considerations

SECTION 7: Handling and storage

7.1. Precautions for safe handling**Advice on safe handling**

Avoid contact with skin and eyes. Do not breathe vapours or spray mist. Use only in well-ventilated areas.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep away from heat. Keep container tightly closed in a dry and well-ventilated place.

Hints on joint storage

Do not store near acids.

Further information on storage conditions

Keep locked up or in an area accessible only to qualified or authorised persons.

7.3. Specific end use(s)

Safety Data Sheet

according to Regulation (EC) No 1907/2006

282-49 Potassium Hydroxide Standard Solution 8.0N

Revision date: 29.05.2015

Product code: 28249

Page 4 of 8

Laboratory chemicals

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|-----------|---------------------|-----|-------------------|-----------|---------------|--------|
| 1310-58-3 | Potassium hydroxide | - | 2 | | STEL (15 min) | WEL |

Additional advice on limit values

None known.

8.2. Exposure controls**Appropriate engineering controls**

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Protective and hygiene measures

Wash hands before breaks and at the end of workday.

Eye/face protection

Safety glasses with side-shields

Hand protection

Use barrier skin cream. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Skin protection

Avoid contact with skin, eyes and clothing.

Respiratory protection

Ensure adequate ventilation, especially in confined areas.

Breathing apparatus only if aerosol or dust is formed.

Recommended Filter type: ABEK-filter

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

| | |
|----------------------|------------|
| Physical state: | liquid |
| Colour: | colourless |
| Odour: | irritating |
| pH-Value (at 20 °C): | 14 |

Changes in the physical state

| | |
|--|----------------|
| Melting point: | not applicable |
| Initial boiling point and boiling range: | 100 °C |
| Sublimation point: | not applicable |
| Softening point: | not applicable |
| Pour point: | not applicable |
| Flash point: | not applicable |

Flammability

| | |
|--------|----------------|
| Solid: | not applicable |
| Gas: | not applicable |

Explosive properties

not applicable

Safety Data Sheet

according to Regulation (EC) No 1907/2006

282-49 Potassium Hydroxide Standard Solution 8.0N

Revision date: 29.05.2015

Product code: 28249

Page 5 of 8

| | |
|-------------------------------------|------------------------|
| Lower explosion limits: | not applicable |
| Upper explosion limits: | not applicable |
| Ignition temperature: | not applicable |
| Auto-ignition temperature | |
| Solid: | no data available |
| Gas: | no data available |
| Decomposition temperature: | no data available |
| Oxidizing properties | |
| not applicable | |
| Vapour pressure: | no data available |
| Density (at 20 °C): | 1,47 g/cm ³ |
| Bulk density: | not applicable |
| Water solubility: | soluble |
| Solubility in other solvents | |
| no data available | |
| Partition coefficient: | no data available |
| Viscosity / dynamic: | no data available |
| Viscosity / kinematic: | no data available |
| Flow time: | no data available |
| Vapour density: | no data available |
| Evaporation rate: | no data available |
| Solvent separation test: | no data available |
| Solvent content: | no data available |

9.2. Other information

| | |
|----------------|----------------|
| Solid content: | not applicable |
|----------------|----------------|

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

To avoid thermal decomposition, do not overheat.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight. Decomposes on heating.

10.5. Incompatible materials

Acids, Alcohols, Metals, Peroxides

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

No toxicology information is available.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

282-49 Potassium Hydroxide Standard Solution 8.0N

Revision date: 29.05.2015

Product code: 28249

Page 6 of 8

Acute toxicity

No data is available on the product itself.

ATEmix calculated

ATE (oral) 791,0 mg/kg

| CAS No | Chemical name | | | | | |
|-----------|-------------------------------------|---------------|---------|--------|--------|--|
| | Exposure route | Dose | Species | Source | Method | |
| 1310-58-3 | potassium hydroxide; caustic potash | | | | | |
| | oral | LD50 mg/kg | 333 | Rat | Merck | |

Irritation and corrosivity

Causes burns.

Aspiration hazard

No aspiration toxicity classification

Specific effects in experiment on an animal

No toxicology information is available.

Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information
12.1. Toxicity

No data is available on the product itself.

| CAS No | Chemical name | | | | | |
|-----------|-------------------------------------|------|-----------|---------|------------------|--------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 1310-58-3 | potassium hydroxide; caustic potash | | | | | |
| | Acute fish toxicity | LC50 | 80 mg/l | 96 h | Gambusia affinis | IUCLID |

12.2. Persistence and degradability

No data is available on the product itself.

12.3. Bioaccumulative potential

No data is available on the product itself.

12.4. Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

no data available

12.6. Other adverse effects

No known effect.

SECTION 13: Disposal considerations
13.1. Waste treatment methods
Advice on disposal

In accordance with local and national regulations.

Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

Safety Data Sheet

according to Regulation (EC) No 1907/2006

282-49 Potassium Hydroxide Standard Solution 8.0N

Revision date: 29.05.2015

Product code: 28249

Page 7 of 8

Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

Waste disposal number of contaminated packaging

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1814
14.2. UN proper shipping name: Potassium hydroxide solution
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8



Classification code: C5
Limited quantity: 1 L
Excepted quantity: E2
Transport category: 2
Hazard No: 80
Tunnel restriction code: E

Inland waterways transport (ADN)

Other applicable information (inland waterways transport)

Not tested

Marine transport (IMDG)

14.1. UN number: UN 1814
14.2. UN proper shipping name: POTASSIUM HYDROXIDE SOLUTION
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8



Special Provisions: -
Limited quantity: 1 L
Excepted quantity: E2
EmS: F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1814
14.2. UN proper shipping name: POTASSIUM HYDROXIDE SOLUTION
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8

Safety Data Sheet

according to Regulation (EC) No 1907/2006

282-49 Potassium Hydroxide Standard Solution 8.0N

Revision date: 29.05.2015

Product code: 28249

Page 8 of 8



| | | |
|--|---------|------|
| Special Provisions: | A3 A803 | |
| Limited quantity Passenger: | 0.5 L | |
| Passenger LQ: | Y840 | |
| Excepted quantity: | E2 | |
| IATA-packing instructions - Passenger: | | 851 |
| IATA-max. quantity - Passenger: | | 1 L |
| IATA-packing instructions - Cargo: | | 855 |
| IATA-max. quantity - Cargo: | | 30 L |

14.5. Environmental hazards

| | |
|-----------------------------|--------------|
| ENVIRONMENTALLY HAZARDOUS: | no |
| Danger releasing substance: | Not relevant |

14.6. Special precautions for user

no data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

Other applicable information

Not relevant

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information

| | |
|--------------------------------|---|
| Employment restrictions: | Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). |
| Water contaminating class (D): | 1 - slightly water contaminating |

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

Revision: 29.05.2015
Safety datasheet sections which have been updated: 2, 11
Revision: 3.09.2014
Safety datasheet sections which have been updated: 4-16

Relevant H and EUH statements (number and full text)

| | |
|------|--|
| H290 | May be corrosive to metals. |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

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