

NaOH 5-15%

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

1.1. Product identifier

NaOH 5-15%

UFI: P8P2-AXUF-0PH6-EE4J

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

Use of the substance/mixture

Laboratory chemical

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name: Schmitz-Metallographie GmbH
Street: Kaiserstraße 100
Place: D-52134 Herzogenrath
Telephone: 02407 / 568296-0
E-mail: info@schmitz-metallographie.de
Contact person: Herr Füllmann
E-mail: info@schmitz-metallographie.de
Internet: www.schmitz-metallographie.de

Telefax: 02407 / 568296-9

1.4. Emergency telephone number:

Further Information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Met. Corr. 1; H290

Skin Corr. 1A; H314

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

sodium hydroxide; caustic soda

Signal word: Danger

Pictograms:



Hazard statements

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing and eye protection/face protection.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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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.

P501 Dispose of contents/container to local/regional/national/international regulations.

2.3. Other hazards

The substances in the mixture (> 0.1%) do not meet the PBT/vPvB criteria according to REACH, annex XIII. This product does not contain a substance (> 0.1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria. This product does not contain a substance (> 0.1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

| CAS No | Chemical name | | | Quantity |
|-----------|---|--------------|------------------|----------|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 1310-73-2 | sodium hydroxide; caustic soda | | | 5-15 % |
| | 215-185-5 | 011-002-00-6 | 01-2119457892-27 | |
| | Met. Corr. 1, Skin Corr. 1A, Eye Dam. 1; H290 H314 H318 | | | |

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 | | |
| 1310-73-2 | 215-185-5 | sodium hydroxide; caustic soda | 5-15 % |
| | Skin Corr. 1A; H314: >= 5 - 100 Skin Corr. 1B; H314: >= 2 - < 5 Skin Irrit. 2; H315: >= 0,5 - < 2 Eye Irrit. 2; H319: >= 0,5 - < 2 | | |

Further Information

Product does not contain listed SVHC substances > 0.1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician. In the case of lung irritation: Primary treatment using corticoide spray, eg. Auxiloson spray, Pulmicort-dosage-spray. (Auxiloson and Pulmicort are registered trademarks).

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing. In case of skin irritation, seek medical treatment.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Observe risk of aspiration if vomiting occurs. Never give anything by mouth to an unconscious person or a

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person with cramps. When in doubt or if symptoms are observed, get medical advice.

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

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

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

Sand. Foam. Carbon dioxide (CO₂). Extinguishing powder.
In case of major fire and large quantities: Water spray jet. Water mist.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Gas/vapours, corrosive.

5.3. Advice for firefighters

In case of fire and/or explosion do not breathe fumes. 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.
Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Do not breathe vapour/aerosol. Avoid contact with skin, eyes and clothes.

For non-emergency personnel

Wear personal protection equipment (refer to section 8).

For emergency responders

No special measures are necessary.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow to enter into soil/subsoil.

6.3. Methods and material for containment and cleaning up

For containment

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

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

Wear suitable protective clothing. (See section 8.)

Conditions to avoid: aerosol or mist formation

Avoid contact with skin, eyes and clothes.

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Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

When using do not eat, drink or smoke.

Further information on handling

General protection and hygiene measures: See section 8.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Only use containers specifically approved for the substance/product.

Make sure spills can be contained (e.g. sump pallets or kerbed areas).

Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Organic peroxides. Self-reactive substances and mixtures. Radioactive substances. Infectious substances.

Further information on storage conditions

Recommended storage temperature: 20 °C

Protect against: frost. UV-radiation/sunlight. heat. Humidity

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

| CAS No | Substance | ppm | mg/m ³ | fib/cm ³ | Category | Origin |
|-----------|------------------|-----|-------------------|---------------------|---------------|--------|
| 1310-73-2 | Sodium hydroxide | - | 2 | | STEL (15 min) | |

DNEL/DMEL values

| CAS No | Substance | Exposure route | Effect | Value |
|--------------------------|--------------------------------|----------------|--------|---------------------|
| 1310-73-2 | sodium hydroxide; caustic soda | | | |
| Worker DNEL, long-term | | inhalation | local | 1 mg/m ³ |
| Consumer DNEL, long-term | | inhalation | local | 1 mg/m ³ |

8.2. Exposure controls



Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection. EN ISO 16321-1:2022

Hand protection

Wear suitable gloves.

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Suitable material:

FKM (fluororubber). - Thickness of glove material: 0,4 mm

Breakthrough time >= 8 h

Butyl rubber. - Thickness of glove material: 0,5 mm

Breakthrough time >= 8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm

Breakthrough time >= 8 h

NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm

Breakthrough time >= 8 h

PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm

Breakthrough time >= 8 h

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.

The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 and the standard EN 374 derived from it.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection

Suitable protective clothing: Lab apron.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

-Exceeding exposure limit values

-Insufficient ventilation and aerosol or mist formation

Suitable respiratory protective equipment: particulates filter device (DIN EN 143). type: P1-3

Half-face mask or quarter facepiece: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 10 times the exposure limit. P3 filter: up to a max. of 30 times the expo.

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|---------------------|
| Physical state: | liquid |
| Colour: | colourless |
| Odour: | characteristic |
| Odour threshold: | not determined |
| Melting point/freezing point: | not determined |
| Boiling point or initial boiling point and boiling range: | not determined |
| Flammability: | not determined |
| Lower explosion limits: | not determined |
| Upper explosion limits: | not determined |
| Flash point: | >100 °C |
| Auto-ignition temperature: | Non-flammable. |
| Decomposition temperature: | not relevant |
| pH-Value (at 20 °C): | 14 |
| Viscosity / kinematic: | not determined |
| Water solubility: | completely miscible |

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| | |
|--|----------------|
| Solubility in other solvents | |
| not determined | |
| Dissolution rate: | not relevant |
| Partition coefficient n-octanol/water: | not relevant |
| Dispersion stability: | not relevant |
| Vapour pressure: | not determined |
| Vapour pressure: | not determined |
| Density: | not determined |
| Bulk density: | not relevant |
| Relative vapour density: | not determined |
| Particle characteristics: | not relevant |

9.2. Other information

Information with regard to physical hazard classes

| | |
|---------------------------|-------------------|
| Explosive properties | |
| not explosive. | |
| Sustained combustibility: | No data available |
| Self-ignition temperature | |
| Solid: | not relevant |
| Gas: | not relevant |
| Oxidizing properties | |
| not determined | |

Other safety characteristics

| | |
|--------------------------|---------------------------|
| Evaporation rate: | not determined |
| Solvent separation test: | not determined |
| Solvent content: | No information available. |
| Solid content: | not determined |
| Sublimation point: | not relevant |
| Softening point: | not relevant |
| Pour point: | not relevant |
| Viscosity / dynamic: | not determined |
| Flow time: | not determined |

Further Information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

Refer to section 10.5.

10.4. Conditions to avoid

Protect against: UV-radiation/sunlight. heat.

10.5. Incompatible materials

Materials to avoid: acid.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11: Toxicological information

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

Toxicokinetics, metabolism and distribution

No information available.

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

Irritation and corrosivity

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

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.

Danger of severe chemical burns that lead to perforation of oesophagus and stomach.

Aspiration hazard

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

11.2. Information on other hazards

Endocrine disrupting properties

This product does not contain a substance (> 0,1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Other information

No data available.

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 |
|-----------|--------------------------------|------------------|------|-----------|-------------------|--------------|--------|
| 1310-73-2 | sodium hydroxide; caustic soda | | | | | | |
| | Acute crustacea toxicity | EC50 mg/l | 40,4 | 48 h | Ceriodaphnia spec | ECHA Dossier | |

12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

The product has not been tested.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

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

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

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.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation. Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

List of Wastes Code - residues/unused products

110107 WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); pickling bases; hazardous waste

List of Wastes Code - used product

110107 WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); pickling bases; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:

UN 1824

14.2. UN proper shipping name:

SODIUM HYDROXIDE SOLUTION

14.3. Transport hazard class(es):

8

14.4. Packing group:

II

Hazard label:



Classification code:

C5

Limited quantity:

1 L

Excepted quantity:

E2

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Transport category: 2
 Hazard No: 80
 Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1824
14.2. UN proper shipping name: SODIUM 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

Marine transport (IMDG)

14.1. UN number or ID number: UN 1824
14.2. UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3. Transport hazard class(es): 8
14.4. Packing group: II
 Hazard label: 8



Marine pollutant: NO
 Special Provisions: -
 Limited quantity: 1 L
 Excepted quantity: E2
 EmS: F-A, S-B
 Segregation group: 18 - alkalis

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1824
14.2. UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3. Transport hazard class(es): 8
14.4. Packing group: II
 Hazard label: 8



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

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Safe handling: see section 7

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Personal protection equipment: see section 8

14.7. Maritime transport in bulk according to IMO instruments

not relevant

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

Directive 2010/75/EU on industrial emissions: not determined

Directive 2004/42/EC on VOC in paints and varnishes: not determined

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

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

REACH 1907/2006 Appendix XVII, No (mixture): 3

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

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
sodium hydroxide; caustic soda

SECTION 16: Other information

Changes

Rev. 1,0; Initial release 28.03.2022

Rev. 2,0; 13.06.2023, Changes in section: 1 - 16.

Rev. 3,0; 27.01.2026, Changes in section: 3, 16.

Abbreviations and acronyms

Met. Corr. 1: Corrosive to metals, hazard category 1

Skin Corr. 1A: Skin corrosion, sub-category 1A

Eye Dam. 1: Serious eye damage, hazard category 1

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

CAS: Chemical Abstracts Service

CLP: Classification, Labelling and Packaging of substances and mixtures

DNEL: Derived No Effect Level

d: day(s)

EINECS: European INventory of Existing Commercial chemical Substances

ELINCS: European List of Notified Chemical Substances

ECHA: European Chemicals Agency

EWC: European Waste Catalogue

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

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ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

h: hour

LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NOAEL: No observed adverse effect level

NOAEC: No observed adverse effect concentration

NLP: No-Longer Polymers

N/A: not applicable

OECD: Organisation for Economic Co-operation and Development

PNEC: predicted no effect concentration

PBT: Persistent bioaccumulative toxic

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

REACH: Registration, Evaluation, Authorisation of Chemicals

SVHC: substance of very high concern

TRGS: Technische Regeln für Gefahrstoffe

UN: United Nations

VOC: Volatile Organic Compounds

WGK: Water Hazard Class (Germany)

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 Corr. 1A; H314 | Calculation method |
| Eye Dam. 1; H318 | Calculation method |

Relevant H and EUH statements (number and full text)

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

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