

KOH

Article number 603356, 479732

Senseca Germany GmbH

42897 Remscheid

Date printed 01.04.2025, Revision 01.04.2025

Version 4.0. Supersedes version: 3.0

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

1.1 Product identifier

KOH

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

1.2.1 Relevant uses

Electrolyte

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

Senseca Germany GmbH
Tenter Weg 2-8
42897 Remscheid / GERMANY
Phone +49(0)9402 9383-0
Fax +49(0)9402 9383-33
Homepage www.ghm-group.de
E-mail info@senseca.com

Address enquiries to

Technical information

info@ghm-group.de

Safety Data Sheet

sdb@chemiebuero.de (No dispatch of safety data sheets)

Safety data sheets are available from the supplier.

1.4 Emergency telephone number

Advisory body

+49 (0)89-19240 (24h) (English)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

Skin Corr. 1A: H314 Causes severe skin burns and eye damage.
Eye Dam. 1: H318 Causes serious eye damage.
Met. Corr. 1: H290 May be corrosive to metals.

2.2 Label elements

The product is required to be labelled in accordance with regulation CLP.

Hazard pictograms



Signal word

DANGER

Contains:

Potassium hydroxide

Hazard statements

H314 Causes severe skin burns and eye damage.
H290 May be corrosive to metals.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
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.
P310 Immediately call a POISON CENTER / doctor.
P390 Absorb spillage to prevent material damage.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/national regulation.

2.3 Other hazards

Environmental hazards

Does not contain any PBT or vPvB substances.
Contains no ingredients with endocrine-disrupting properties.

Other hazards

Further hazards were not determined with the current level of knowledge.

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SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
6 - 7	Potassium hydroxide
	CAS: 1310-58-3, EINECS/ELINCS: 215-181-3, EU-INDEX: 019-002-00-8, Reg-No.: 01-2119487136-33-XXXX
	GHS/CLP: Acute Tox. 4: H302 - Skin Corr. 1A: H314 - Eye Dam. 1: H318 - Met. Corr. 1: H290
	SCL [%]: >= 5: Skin Corr. 1A: H314, >=2 - <5: Skin Corr. 1A: H314, 0,5 - <2: Skin Irrit. 2: H315, 0,5 - <2: Eye Irrit. 2: H319

Comment on component parts

For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Change soaked clothing immediately.

Inhalation

Ensure supply of fresh air.
In the event of symptoms seek medical treatment.

Skin contact

In case of contact with skin wash off immediately with water.
Immediate medical treatment necessary, as untreated burns can result in slow-healing wounds.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Shield unaffected eye.
Seek medical advice immediately.

Ingestion

Rinse out mouth and give plenty of water to drink.
Do not induce vomiting.
Consult a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Product is caustic.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
Forward this sheet to your doctor.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered.

Extinguishing media that must not be used

Full water jet

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Wear full protective suit.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment (protective gloves, safety glasses, protective clothing).
Minor risk of slipping due to leakage/spillage of product in wet area.

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6.2 Environmental precautions

Do not discharge into the soil/streches of water.

6.3 Methods and material for containment and cleaning up

Take up with absorbent material (e.g. general-purpose binder).

Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with eyes and skin. Use personal protective equipment.

Wash face and/or hands before break and end of work.

Use barrier skin cream.

Do not eat, drink or smoke when using this product.

Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original tightly closed container.

Prevent penetration into the ground.

Provide alkali-resistant floor.

Do not store together with food and animal food/diet.

Do not store together with acids.

Keep container in a well-ventilated place.

Storage class (TRGS 510)

Storage class 8B (VCI)

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored DE (TRGS 900)

not relevant

Ingredients with occupational exposure limits to be monitored EU (2004/37/EG)

not relevant

DNEL

Substance
Potassium hydroxide, CAS: 1310-58-3
Industrial, inhalative, Long-term - local effects, 1 mg/m ³
general population, inhalative, Long-term - local effects, 1 mg/m ³

PNEC

Substance
Potassium hydroxide, CAS: 1310-58-3
There are no PNEC values established for the substance.

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8.2 Exposure controls

Additional advice on system design	Using suitable discharges or exhaust ventilation.
Eye protection	Tightly fitting goggles (EN 166:2001).
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. > 0,7 mm; Butyl rubber, >480 min (EN 374-1/-2/-3).
Skin protection	Alkali-resistant protective clothing (EN 340)
Other	Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, combination filter B-P1. (DIN EN 14387)
Thermal hazards	none
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Form	liquid
Color	colourless
Odor	pungent
Odour threshold	not determined
pH-value	< 2
pH-value [1%]	not determined
Boiling point or initial boiling point and boiling range [°C]	not determined
Flash point [°C]	not applicable
Flammability	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	not determined
Density [g/cm³]	not determined
Relative density	not determined
Bulk density [kg/m³]	not applicable
Solubility in water	completely miscible
Solubility other solvents	No information available.
Partition coefficient n-octanol/water (log value)	not determined
Kinematic viscosity	not determined
Relative vapour density	not determined
Melting point [°C]	not determined
Auto-ignition temperature [°C]	not applicable
Decomposition temperature [°C]	not determined
Particle characteristics	not applicable

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

Aqueous solutions will react with aluminium, generating hydrogen gas.

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10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reactions with various metals.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

Various metals.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

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SECTION 11: Toxicological information

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

Acute oral toxicity

Product
ATE-mix, oral, >2000 mg/kg bw
Substance
Potassium hydroxide, CAS: 1310-58-3
LD50, oral, Rat, > 214 -< 333 mg/kg

Acute dermal toxicity

Product
ATE-mix, dermal, >2000 mg/kg bw

Acute inhalational toxicity

Product
ATE-mix, inhalativ (mist), >5 mg/L

Serious eye damage/irritation Risk of serious damage to eyes.

Substance
Potassium hydroxide, CAS: 1310-58-3
Eye, Rabbit, corrosive

Skin corrosion/irritation Product is caustic.

Substance
Potassium hydroxide, CAS: 1310-58-3
dermal, corrosive

Respiratory or skin sensitisation Based on the available information, the classification criteria are not fulfilled.

Substance
Potassium hydroxide, CAS: 1310-58-3
Guinea pig, OECD SIDS KOH, negativ

Specific target organ toxicity — single exposure Based on the available information, the classification criteria are not fulfilled.

Specific target organ toxicity — repeated exposure Based on the available information, the classification criteria are not fulfilled.

Mutagenicity Based on the available information, the classification criteria are not fulfilled.

Substance
Potassium hydroxide, CAS: 1310-58-3
In vitro study, negativ

Reproduction toxicity Based on the available information, the classification criteria are not fulfilled.

- Fertility

Substance
Potassium hydroxide, CAS: 1310-58-3
negativ
OEDE SIDS 2002

- Development

Substance
Potassium hydroxide, CAS: 1310-58-3
negativ

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OEDE SIDS 2002

Carcinogenicity

Based on the available information, the classification criteria are not fulfilled.

Substance

Potassium hydroxide, CAS: 1310-58-3

negativ

Aspiration hazard

Based on the available information, the classification criteria are not fulfilled.

General remarks

Toxicological data of complete product are not available.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

11.2.2 Other information

none

SECTION 12: Ecological information

12.1 Toxicity

Substance

Potassium hydroxide, CAS: 1310-58-3

LC50, (24h), Gambusia affinis, 80 mg/l

LC50, (24h), Poecilia reticulata, 165 mg/l

EC50, (48h), Ceriodaphnia spec., 40,4 mg/l

12.2 Persistence and degradability

Behaviour in environment compartments

No information available.

Behaviour in sewage plant

The product is an alkaline solution. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.

Biological degradability

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

Spillages may penetrate the soil causing ground water contamination.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

12.7 Other adverse effects

Do not discharge product unmonitored into the environment or into the drainage.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Dispose of as hazardous waste.
Coordinate disposal with the disposal contractor/authorities if necessary.

Waste no. (recommended)

060204*

Contaminated packaging

Contaminated packing should be disposed of as product waste.

Waste no. (recommended)

150110* packaging containing residues of or contaminated by hazardous substances
150102

SECTION 14: Transport information

14.1 UN number or ID number

Transport by land according to ADR/RID 1814

Inland navigation (ADN) 1814

Marine transport in accordance with IMDG 1814

Air transport in accordance with IATA 1814

14.2 UN proper shipping name

Transport by land according to ADR/RID Potassium hydroxide solution

- Classification Code

C5

- Label



- ADR LQ

1 I

- ADR 1.1.3.6 (8.6)

Transport category (tunnel restriction code) 2 (E)

Inland navigation (ADN)

Potassium hydroxide solution

- Classification Code

C5

- Label



Marine transport in accordance with IMDG

Potassium hydroxide, solution

- EMS

F-A, S-B

- Label



- IMDG LQ

1 I

Air transport in accordance with IATA Potassium hydroxide solution

- Label



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14.3 Transport hazard class(es)

Transport by land according to ADR/RID 8

Inland navigation (ADN) 8

Marine transport in accordance with IMDG 8

Air transport in accordance with IATA 8

14.4 Packing group

Transport by land according to ADR/RID II

Inland navigation (ADN) II

Marine transport in accordance with IMDG II

Air transport in accordance with IATA II

14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Maritime transport in bulk according to IMO instruments

not applicable

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SECTION 15: Regulatory information

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

EEC-REGULATIONS	2008/98/EG (2000/532/EC); 2010/75/EU; 2004/42/EG; (EG) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EWG ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 2024/573; (EU) 2019/1148; (EU) 2019/1021, (EU) 2023/707
- Comment on component parts	Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
- Annex XIV (REACH)	According to Annex XIV of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances $\geq 0.1\%$ that are subject to authorisation.
- Annex XVII (REACH)	According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product contains $\geq 0.1\%$ of substances with the following restrictions. 75 According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product is subject to the following restrictions. 3
TRANSPORT-REGULATIONS	ADR (2025); IMDG-Code (2025, 42. Amdt.); IATA-DGR (2025)
NATIONAL REGULATIONS (DE):	Hazardous Substances Ordinance - GefStoffV 21.07.2021; Detergent and Cleaning Agents Act - WRMG; Federal Water Act - WHG; Technical Rule for Hazardous Substances - TRGS: 200, 220, 615, 900, 905.
- Water hazard class	1, conf. AwSV, 18.04.2017
- Decree for case of interference, observe limits	no
- Class. according to TA-Luft	not applicable
- Storage class (TRGS 510)	Storage class 8B (VCI)
- Observe employment restrictions for people	Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.
- VOC (2010/75/CE)	not relevant
- Other regulations	TRGS 400: Risk assessment TRGS 401: Gefährdung durch Hautkontakt. - Ermittlung, Beurteilung, Maßnahmen. TRGS 510: Storage of hazardous substances in non-stationary containers DGUV Information 213-070: Säuren und Laugen (Merkblatt M 004 der Reihe „Gefahrstoffe“)

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H290 May be corrosive to metals.
H318 Causes serious eye damage.
H314 Causes severe skin burns and eye damage.
H302 Harmful if swallowed.

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16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform Chemical Information Database
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Skin Corr. 1A: H314 Causes severe skin burns and eye damage. (Calculation method)
Eye Dam. 1: H318 Causes serious eye damage. (Calculation method)
Met. Corr. 1: H290 May be corrosive to metals. (Calculation method)

Modified position

none

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