

Potassium hydroxide

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 09/09/2011 Revision date 17/04/2018

P0517

Version: 2.0

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

1.1. Product identifier

Product form : Substance
 Trade name : Potassium hydroxide
 EC-No. : 215-181-3
 CAS-No. : 1310-58-3
 REACH registration No : 01-2119487136-33-xxxx
 C&L notification reference no : 019-002-00-8
 Product code : P0517
 Formula : KOH
 Synonyms : Kalium hydroxide
 Product group : Raw material

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

1.2.1. Relevant identified uses

Main use category : Professional use
 Industrial/Professional use spec : For professional use only. Duchefa Biochemie B.V. products are intended only for "in vitro laboratory" research purposes.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Duchefa Biochemie B.V.
 A. Hofmanweg 71
 2031 BH Haarlem - The Netherlands
 T +31(0)23-5319093 - F +31(0)23-5318027
info@duchefa.nl

1.4. Emergency telephone number

Emergency number : Supplier contact information:
 +31(0)23-5319093 (M-F 09:00-17:00)
 +31(0)6-30109355 (outside office hours)

Organisation/Company	Address	Comment
World Health Organization world directory of poison centres	http://apps.who.int/poisoncentres/	Consult website for a local poison centre

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4 H302
 Skin corrosion/irritation, Category 1A H314

Full text of H statements : see section 16

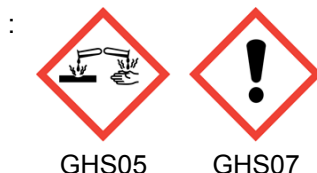
Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS05

GHS07

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP)

: P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P305+P351 - IF IN EYES: Rinse cautiously with water for several minutes.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : Potassium hydroxide

CAS-No. : 1310-58-3

EC-No. : 215-181-3

Name	Product identifier	%
potassium hydroxide, caustic potash	(CAS-No.) 1310-58-3 (EC-No.) 215-181-3 (EC Index-No.) 019-002-00-8	> 85

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Seek medical attention if ill effect or irritation develops.

First-aid measures after inhalation : Remove victim to fresh air
Allow the victim to rest.

First-aid measures after skin contact : Wash skin with plenty of water
Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse
Seek medical advice.

First-aid measures after eye contact : Rinse immediately with plenty of water
Seek medical advice.

First-aid measures after ingestion : Rinse mouth out with water
Get immediate medical advice/attention.

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

Symptoms/effects : May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.
Redness, pain
Corrosive to eyes, respiratory system and skin.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Alcohol resistant foam.
Dry chemical powder.
Carbon dioxide (CO₂).
Water spray.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Prevent fire fighting water from entering the environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Wear proper protective equipment.

6.1.1. For non-emergency personnel

Measures in case of dust release : Use good housekeeping practices to avoid rendering dust airborne.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Sweep up dry powder and dispose properly. Use non-corrodable disposal containers.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in dry, well-ventilated area
Store at room temperature
Keep container tightly closed and protected from light.
- Special rules on packaging : Store in original container or corrosive resistant and/or lined container.

7.3. Specific end use(s)

For professional use only. Duchefa Biochemie B.V. products are intended only for "in vitro laboratory" research purposes.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

No additional information available

8.2. Exposure controls**Hand protection:**

Type	Material	Permeation	Thickness (mm)	Standard
Gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,11	EN 374

Eye protection:

Safety glasses (to European standard EN 166 or equivalent)

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Where excessive dust may result, wear approved mask. Type P1 (EN 143)

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

- Physical state : Solid
- Appearance : Crystals.
- Molecular mass : 56,11 g/mol
- Colour : White.
- Odour : Odourless.
- Odour threshold : No data available
- pH : ≈ 14 (56 g/l, 20 °C)
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : 360 °C
- Freezing point : No data available
- Boiling point : 1320 °C
- Flash point : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : No data available
- Vapour pressure : No data available
- Relative vapour density at 20 °C : No data available

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Relative density	: No data available
Density	: 2,04 g/cm ³
Solubility	: Water: 1120 g/l at 20 °C
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

Exothermic reaction with water.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

React in contact of

Strong acids

Organic products

Metals.

10.4. Conditions to avoid

Moisture.

10.5. Incompatible materials

Metals

Attacks metals.

10.6. Hazardous decomposition products

Reacts with water, generates heat.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

Potassium hydroxide (1310-58-3)	
LD50 oral rat	273 mg/kg

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

pH: ≈ 14 (56 g/l, 20 °C)

Serious eye damage/irritation : Serious eye damage, category 1, implicit

pH: ≈ 14 (56 g/l, 20 °C)

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Other information	: See actual entry in RTECS for complete information: TT2100000.

SECTION 12: Ecological information

12.1. Toxicity

Potassium hydroxide (1310-58-3)	
LC50 fish 1	80 mg/l Gambusia affinis (Mosquito fish)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects	: May cause pH changes in aqueous ecological systems.
Additional information	: Prevent entry to sewers and public waters. Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose in a safe manner in accordance with local/national regulations.
Additional information	: When not empty dispose of this container at hazardous or special waste collection point.

SECTION 14: Transport information

In accordance with ADR / IATA / IMDG




ADR	IMDG	IATA
14.1. UN number		
1813	1813	1813
14.2. UN proper shipping name		
POTASSIUM HYDROXIDE, SOLID	POTASSIUM HYDROXIDE, SOLID	Potassium hydroxide, solid
Transport document description		
UN 1813 POTASSIUM HYDROXIDE, SOLID, 8, II, (E)	UN 1813 POTASSIUM HYDROXIDE, SOLID, 8, II	UN 1813 Potassium hydroxide, solid, 8, II
14.3. Transport hazard class(es)		
8	8	8

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ADR	IMDG	IATA
		
14.4. Packing group		
II	II	II
14.5. Environmental hazards		
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No
No supplementary information available		

14.6. Special precautions for user

Special transport precautions : The driver shall not attempt to deal with any fire of the load, NOTIFY POLICE AND FIRE BRIGADE IMMEDIATELY

. Overland transport

Classification code (ADR) : C6

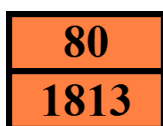
Limited quantities (ADR) : 1kg

Excepted quantities (ADR) : E2

Transport category (ADR) : 2

Hazard identification number (Kemler No.) : 80

Orange plates :



Tunnel restriction code (ADR) : E

EAC code : 2W

- Transport by sea

EmS-No. (Fire) : F-A

EmS-No. (Spillage) : S-B

Stowage category (IMDG) : A

Segregation (IMDG) : SG35

Properties and observations (IMDG) : White pellets, flakes, lumps or solid blocks, deliquescent. Reacts with ammonium salts, evolving ammonia gas. In the presence of moisture, corrosive to aluminium, zinc and tin. Causes burns to skin, eyes and mucous membranes. Reacts violently with acids.

- Air transport

PCA Excepted quantities (IATA) : E2

PCA Limited quantities (IATA) : Y844

PCA limited quantity max net quantity (IATA) : 5kg

PCA packing instructions (IATA) : 859

PCA max net quantity (IATA) : 15kg

CAO packing instructions (IATA) : 863

CAO max net quantity (IATA) : 50kg

ERG code (IATA) : 8L

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Potassium hydroxide is not on the REACH Candidate List

Potassium hydroxide is not on the REACH Annex XIV List

15.1.2. National regulations

Ensure all national/local regulations are observed.

Germany

Reference to AwSV

: Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 1 or 2; ID No. 345)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV

: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen

: The substance is not listed

SZW-lijst van mutagene stoffen

: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding

: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid

: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling

: The substance is not listed

Denmark

Recommendations Danish Regulation

: Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes:

8.2	Hand protection	Modified	Specified material, thickness, et cetera of gloves
11.1	RTECS no	Added	

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DPD	Dangerous Preparations Directive 1999/45/EC
DSD	Dangerous Substances Directive 67/548/EEC
EC50	Median effective concentration
IATA	International Air Transport Association

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IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet

Data sources : Manufacturer. ECHA (European Chemicals Agency). REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

SDS Biochemicals version 2018

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product