SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Kaliumhydroxidlösning/Kaliumhydroksiddeløsning/Potassium hydroxide solution (> 25%)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name: Kaliumhydroxidlösning/Kaliumhydroksiddeløsning/Potassium hydroxide solution (> 25%)

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

Relevant identified uses

Main use category : Professional use

Uses advised against

No additional information available

1.3.Details of the supplier of the safety data sheet

Supplier
Sunchem AB
Box 69
S-433 21 Partille Sweden
T +46 31 447310 - F +46 31 449581
E-mail: d.s@sunco.se

Manufacturer
Sunchem AB
Box 69
S-433 21 Partille Sweden
T +46 31 447310 - F +46 31 449581
E-mail: d.s@sunco.se

Contact person : Dick Sundström

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number
United Kingdom	National Poisons Information Service (Newcastle Unit)	Claremont Place Newcastle-upon-Tyne, Newcastle	+44 191 2606182/+44 191 2606180 24H

SECTION 2: HAZARDS IDENTIFICATION

2.1.Classification of the substance or mixture

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

Acute Tox. 4 (Oral)	H302
Skin Corr. 1A	H314
Eye Dam. 1	H318

Full text of H statements : see section 16

2.2. Label elements

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

Hazard pictograms (CLP) :

Signal word (CLP)	: Danger
Hazardous ingredients	: Potassium hydroxide; caustic potash
Hazard statements (CLP)	: H302 - Harmful if swallowed. H314 - Causes severe skin burns and eye damage.
Precautionary statements (CLP)	: P260 - Do not breathe mist, spray, vapours. P264 - Wash hands thoroughly after handling. P280 - Wear protective gloves, protective clothing, eye protection, face protection. P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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 P501 - Dispose of contents/container to an approved waste disposal plant

2.3. Other hazards

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
potassium hydroxide; caustic potash	(CAS-No.) 1310-58-3 (EC-No.) 215-181-3 (EC Index-No.) 019-002-00-8 (REACH-no) 01-2119487136-33	>25	Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314

Specific concentration limits:

Name	Product identifier	Specific concentration limits
potassium hydroxide; caustic potash	(CAS-No.) 1310-58-3 (EC-No.) 215-181-3 (EC Index-No.) 019-002-00-8 (REACH-no) 01-2119487136-33	(0.5 =<C < 2) Eye Irrit. 2, H319 (0.5 =<C < 2) Skin Irrit. 2, H315 (2 =<C < 5) Skin Corr. 1B, H314 (C >= 5) Skin Corr. 1A, H314

Full text of H-statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Assure fresh air breathing. Allow the patient to rest. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Chemical burns must be treated by a physician.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/effects	: Causes severe skin burns and eye damage.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.

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

Chemical burns must be treated by a physician. In case of accident or if you feel unwell, take contact with doctor and show this safety data sheet.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2.Special hazards arising from the substance or mixture

Fire hazard	: Non flammable.
Hazardous decomposition products in case of fire	: Very corrosive gases/vapours/fumes.

5.3. Advice for firefighters

Firefighting instructions	: Exercise caution when fighting any chemical fire. Containers close to fire should be removed immediately or cooled with water. Use water spray or fog for cooling exposed containers. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not enter fire area without proper personal protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1.Personal precautions, protective equipment and emergency procedures

General measures	: Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Avoid all eye and skin contact and do not breathe vapour and mist.
For non-emergency personnel	
Emergency procedures **For emergency responders**	: Evacuate unnecessary personnel.
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3.Methods and material for containment and cleaning up

For containment	:	Collect all waste in suitable and labelled containers and dispose according to local legislation.
Methods for cleaning up	:	Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Post clean with water.

6.4. Reference to other sections

For further information refer to section 13. See Heading 8. Exposure controls and personal protection.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Additional hazards when processed	:	Corrosive storage.
Precautions for safe handling	:	Ensure adequate ventilation. Avoid contact with skin and eyes. Wear personal protective equipment. Do not breathe mist, spray, vapours.
Hygiene measures	:	Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

7.2.Conditions for safe storage, including any incompatibilities

Storage conditions	:	Keep cool. Store in a well-ventilated place. Keep container tightly closed. Protect against frost.
Incompatible materials	:	Acids.

7.3. Specific end use(s)

No additional data.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

potassium hydroxide; caustic potash (1310-58-3)		
United Kingdom	Local name	Potassium hydroxide
United Kingdom	WEL STEL (mg/m³)	2 mg/m³

8.2. Exposure controls

Appropriate engineering controls	:	Eye wash facilities and emergency shower must be available when handling this product.
Personal protective equipment	:	Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the protective equipment. Avoid all unnecessary exposure.
Hand protection	:	Wear protective gloves. Neoprene. Nitrile rubber. Butyl rubber. Breakthrough time : 6 (> 480 minutes). Layer thickness : 0,2 - 0,4 mm. STANDARD EN 374.
Eye protection	:	Use splash goggles when eye contact due to splashing is possible. STANDARD EN 166.
Skin and body protection	:	Wear suitable protective clothing
Respiratory protection	:	In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type B/P3). EN 14387
Other information	:	Use appropriate hand lotion to prevent defatting and cracking of skin. Do not eat, drink or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1.Information on basic physical and chemical properties

	:	
Physical state		Liquid

Colour		Colourless.
Odour		none to slight.
Odour threshold		Not relevant.
pH	:	> 13
Relative evaporation rate (butylacetate=1)	:	Not determined.
Melting point	:	Not determined.
Freezing point	:	Not determined.
Boiling point	:	Not determined.
Flash point	:	Not determined.
Auto-ignition temperature	:	Not determined.
Decomposition temperature	:	Not determined.
Flammability (solid, gas)	:	Non flammable.
Vapour pressure	:	Not determined.
Relative vapour density at 20 °C	:	Not determined.
Relative density	:	Not determined.
Density	:	1.1 - 1.5 @ 20 °C
Solubility	:	Very soluble in water. Water: 1000 g/l
Log Pow	:	Not determined.
Viscosity, kinematic	:	Not determined.
Viscosity, dynamic	:	Not determined.

Explosive properties	:	Product is not explosive.
Oxidising properties	:	Non flammable.
Explosive limits	:	Not relevant.

9.2. Other information

No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No incompatible groups noted.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3.Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Stable under recommended handling and storage conditions (see section 7).

10.5. Incompatible materials

Acids. Strong oxidising agents. In contact with metals generates hydrogen gas, which together with air can form explosive mixtures.

10.6.Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1.Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

ATE CLP (oral)	1092 mg/kg bodyweight
potassium hydroxide; caustic potash (1310-58-3)	
LD50 oral rat	273 - 324 mg/kg

Skin corrosion/irritation	:	Causes severe skin burns and eye damage. pH: > 13
Serious eye damage/irritation	:	Causes serious eye damage. pH: > 13
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Based on available data, the classification criteria are not met Not classified
Carcinogenicity	:	Based on available data, the classification criteria are not met Not classified
		Based on available data, the classification criteria are not met
Reproductive toxicity	:	Not classified
		Based on available data, the classification criteria are not met
STOT-single exposure	:	Not classified
		Based on available data, the classification criteria are not met

STOT-repeated exposure : Not classified

Based on available data, the classification criteria are not met

Aspiration hazard : Not classified

Aspiration into lungs may cause pulmonary oedema and chemical pneumonia. Corrosive. Even small amounts may cause serious damage.

Based on available data, the classification criteria are not met

Potential adverse human health effects and if swallowed. symptoms : Harmful

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - general : The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms. Not regarded as dangerous to the environment. This does not, however, rule out the possibility that large or frequent smaller emissions of the product may be harmful to the environment.

potassium hydroxide; caustic potash (1310-58-3)	
LC50 fish 1	80 mg/l (96 hours - Gambusia affinis - Mosquito fish)

12.2. Persistence and degradability

Potassium hydroxide solution (more than 25%)	
Persistence and degradability	Componet(s) are biodegradable.

12.3. Bioaccumulative potential

Potassium hydroxide solution (more than 25%)	
Log Pow	Not determined.
Bioaccumulative potential	No bioaccumulation.
potassium hydroxide; caustic potash (1310-58-3)	
Log Pow	< 0

12.4. Mobility in soil

Potassium hydroxide solution (more than 25%)	
Ecology - soil	The product is water soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects : None to our knowledge.

Additional information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Regional legislation (waste) : Dispose as hazardous waste.

Waste treatment methods	:	Do not discharge into drains.
Product/Packaging disposal recommendations	:	Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to an approved waste disposal plant.
Additional information	:	The given LoW-code is a guiding, and the code depends on how the waste is formed. User must evaluate the choice of correct code.
Ecology - waste materials	:	Avoid release to the environment.
European List of Waste (LoW) code	:	06 02 04* - sodium and potassium hydroxide

SECTION 14: TRANSPORT INFORMATION

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1814	1814	1814	1814	1814
14.2. UN proper shipping name				
POTASSIUM HYDROXIDE SOLUTION	POTASSIUM HYDROXIDE SOLUTION	Potassium hydroxide solution	POTASSIUM HYDROXIDE SOLUTION	POTASSIUM HYDROXIDE
ADR	**IMDG**	**IATA**	**ADN**	**RID**
				SOLUTION
Transport document description				
UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, II, (E)	UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, II			
14.3. Transport hazard class(es)				
8	8	8	8	8
				
14.4. Packing group				
II	II	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	Dangerous for the environment : No	Dangerous for the environment : No

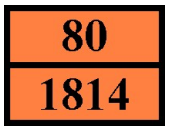
No supplementary information available

14.6. Special precautions for user

- Overland transport

Limited quantities (ADR) : 1l
Excepted quantities (ADR) : E2
Hazard identification number (Kemler No.) : 80

Orange plates :



EAC code : 2R

- Transport by sea

EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B

- Air transport

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y840
Special provisions (IATA) : A3, A803

Rail transport

No data available

14.7.Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IBC code : No IBC-code for bulk transport offshore (MARPOL).

SECTION 15: REGULATORY INFORMATION

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

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

National regulations

EC-regulation 2015/830 /EC, 1907/2006/EC (REACH), 1272/2008/EC (CLP), 790/2009/EC. Transport of dangerous goods (ADR/RID, IMDG, IATA/ICAO). Workplace exposure limits.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: OTHER INFORMATION

Data sources: EC-regulation 2015/830 /EC, 1907/2006/EC (REACH), 1272/2008/EC (CLP), 790/2009/EC. Transport of dangerous goods (ADR/RID, IMDG, IATA/ICAO). Workplace exposure limits.
Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.