

## SAFETY DATA SHEET

### Potassium hydroxide 50%, aqueous solution

#### 1. Identification of the product and of the company/undertaking

Product Label Name	Potassium hydroxide 50%, aqueous solution
Use	Chemical intermediate.
Company identification	ALBEMARLE EUROPE SPRL Rue du Bosquet 9 B-1348 LOUVAIN-LA-NEUVE(SUD) BELGIUM Tel. : +32-10-48.17.11 Fax H&E Dpt : +32-10-48.17.39
EMERGENCY TELEPHONE	+32.(0)70.233.201 (CARECHEM 24)
National antipollution center	UK : +44.(0)1.251.51.51 (National Poisons Information Service)

#### 2. Composition/information on ingredients

Chemical name	Potassium Hydroxide 50%, Aqueous solution
Chemical Formula	KOH + H <sub>2</sub> O
Chemical family	Potassium compounds

Substance	% weight	CAS No.	EINECS/ELINCS No.	EC Annex I Nr	Symbol	R Phrases
Potassium Hydroxide	50	1310-58-3	215-181-3	019-002-00-8	C	R22 R35
Water	50	7732-18-5	231-791-2			

#### 3. Hazards identification

Human health effects	Harmful if swallowed. Causes severe burns.
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Environmental effects -  
Other effects -

## 4. First-aid measures

Immediate medical assistance required	NO
Skin contact	After contact with skin, wash immediately with plenty of water. Take off immediately all contaminated clothing. May cause delayed burns. Seek medical advice.
Eye contact	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Inhalation	Remove to fresh air. Seek medical advice.
Ingestion	Rinse mouth out with water. Do not induce vomiting. Seek medical advice.
Emergency equipment	Provide wash facilities for eyes and skin near work area.

## 5. Fire-fighting measures

### Extinguishing media

Suitable	Carbon dioxide, dry chemicals, foam, water spray (mist).
Unsuitable	/
Exposure hazards	High temperatures may liberate toxic vapours.
Protective equipment for fire-fighters	Self contained breathing apparatus. Wear suitable protective clothing.

## 6. Accidental release measures

Personal precautions	Avoid contact with skin and eyes. Wear suitable protective clothing. Keep away from food, drink and animal feeding stuffs.
Environmental precautions	Contain any spill with dikes or absorbents to prevent migration and entry into sewers or streams.

Isolate the sources of the spill(s) leak(s) and evacuate all personnel from danger area.

Methods for cleaning up: Shovel up residues and place in a labelled sealable container for subsequent safe disposal. Put leaking container into a labelled drum or overdrum.

Neutralize with hydrochloric acid solution and flush.

## 7. Handling and storage

Handling: Handle in accordance with good industrial hygiene and safety procedures. Avoid contact with skin and eyes.

Storage: Store at temperature > 10°C.

## 8. Exposure controls/personal protection

### Personal protective equipment

Skin protection: Wear suitable protective clothing.

Eye protection: Chemical goggles.  
Provide wash facilities for eyes and skin near work area.

Hands protection: Use neoprene or rubber gloves.

Respiratory protection: Self contained breathing apparatus, in case of emergency.

### Occupational exposure limit values

Potassium Hydroxide		mg/m3	ppm
Austria	TRK TWA	2	
Belgium	15-minute STEL	2	
France	VLE	2	
Finland	Finnish 8 hour-limit	2	
Italy	15-minute STEL	2	
Norway	STEL	2	
Spain	VLA_EC	2	
Switzerland	TWA	2	
Netherlands	MAC (15 min)	2	
UK	STEL	2	

Water		mg/m3	ppm
: No data		-	-

## 9. Physical and chemical properties

Form	Liquid
Colour	Colourless.
Odour	Odourless.
Boiling point	145°C
Density	1.51 @ 20°C
Melting point	No data
Vapour pressure	40 hPa @ 70°C 3 hPa @ 20°C
Solubility in water	Miscible.
Flammability (gas/solid)	Not applicable.
Flash point	Not applicable.
Freezing Point	Not applicable.
pH	14
Explosive properties	Not applicable.
Oxidizing properties	Non oxidizing.
Octanol/water partition coefficient	Not applicable.
Viscosity	No data
Evaporation rate	No data
Vapour density	Not applicable.
Other	No data

## 10. Stability and reactivity

Stability	Stable under normal conditions of use.
Conditions to avoid	/
Materials to avoid.	Avoid contact with acids. Avoid contact with Al, Zn, Sn, Cu and Al, Zn, Sn, Cu alloys. Contact with copper, aluminium, tin and zinc may cause formation of flammable hydrogen gas.
Hazardous (thermal) decomposition products	Oxides of carbon.

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## 11. Toxicological information

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Acute toxicity	-	Causes severe burns. Risk of serious damage to eyes. Irritating to respiratory system. Harmful if swallowed.
Sensitisation	-	
Mutagenicity	-	
Chronic effects of overexposure	-	Chronic exposures may cause inflammatory and ulcerative changes in the mouth and possibly bronchial and gastrointestinal disorders.
Other toxicological information	-	

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## 12. Ecological information

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Ecotoxicity	-	Harmful to aquatic organisms. LC 50 Fish (24 h) : 80 mg/l (KOH).
Mobility	-	
Persistence/Degradability	-	
Bioaccumulative potential	-	
Other adverse effects	-	

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## 13. Disposal considerations

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Dispose in a safe manner in accordance with local/national regulations, after neutralization (pH between 5.5 and 8.5 inclusive).

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## 14. Transport information

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### REGULATED

SEA	YES
ROAD/RAIL	YES
AIR	YES

**SEA**

IMO Class	8
Packing Group:	II
UN N°	1814
IMO Labelling	8
Proper shipping name	Potassium Hydroxide 50%, Aqueous solution
EMS	F-A, 5-B
Marpol - Annex II	Pollution category (C) - Ship type 3.
Marpol - Annex III	Unregulated.
Transport description	UN 1814, Potassium Hydroxide 50%, Aqueous solution, 8, II

**ROAD/RAIL**

ADR/RID Class	8
Packing Group:	II
Classification code	C5
UN N°	1814
Hazard Identification N°	80
ADR/RID Labelling	8
TREMCARD: CEFIC	80GCS-II+III
Proper shipping name	Potassium Hydroxide 50%, Aqueous solution
Transport description	UN 1814, Potassium Hydroxide 50%, Aqueous solution, 8, II

**AIR**

IATA/ICAO Class	8
Packing Group:	II
UN N°	1814
IATA/ICAO Labelling	8
Passenger Aircraft	Maximum net quantity per package: 1 l.
Cargo aircraft only	Maximum net quantity per package: 30 l.
	Potassium Hydroxide 50%, Aqueous solution
Transport description	UN 1814, Potassium Hydroxide 50%, Aqueous solution, 8, II

**Uncleaned empty packagings/transport equipments**

ROAD (ADR/RID)	Empty packaging, class. Potassium Hydroxide 50%, Aqueous solution.
SEA (IMO/IMDG)	Empty packaging, receptacle, portable tank, tank-container, tank-trailer, ..., uncleaned of residue last contained: Potassium Hydroxide 50%, Aqueous solution, 8, UN 1814, II.

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## 15. Regulatory information

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### Label information

Symbol



C = Corrosive.

R Phrases

R35 - Causes severe burns.  
R22 - Harmful if swallowed.

S Phrases

S1/2 - Keep locked up and out of the reach of children.  
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.  
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Other

WGK = 1.

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## 16. Other information

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\* Indicates changes vs. previous version.

MSDS in conformity with the EU Directive 2001/58/EC.

Product classification following EU Directives 67/548/EEC and 1999/45/EC.

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Prepared by : Health & Environment - EMA of ALBEMARLE EUROPE SPRL  
FOR ADDITIONAL NON-EMERGENCY MSDS INFORMATION, CONTACT :

Health & Environment  
Parc Scientifique Einstein  
Rue du Bosquet, 9  
B-1348 Louvain-la-Neuve (Sud)  
Belgium  
Phone No. : +32-10-48.17.38

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