

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**46249 Soap Solution for Hardness Determination**

Revision date: 18.05.2015

Product code: 46249

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

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

Water analysis

**1.3. Details of the supplier of the safety data sheet**

Company name: HACH LANGE GmbH  
Street: Willstätterstr. 11  
Place: D-40549 Düsseldorf  
Telephone: +49 (0)211 5288-383  
e-mail: SDS@hach.com  
Internet: www.de.hach.com  
Responsible Department: HACH LANGE Ltd.  
5, Pacific Way  
Salford Manchester M50 1DL - United Kingdom  
Tel. +44 (0) 161 872 1487 \* Fax +44 (0) 161 848 7324  
e-Mail: info-uk@hach.com

HACH LANGE Ltd.  
Unit 1, Chestnut Road Western Industrial Estate  
IRL-Dublin 12  
Tel. +353 (0)1 4602522  
e-Mail: info-ie@hach.com

**1.4. Emergency telephone number:**

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Substance or mixture corrosive to metals: Met. Corr. 1

Skin corrosion/irritation: Skin Corr. 1A

Hazard Statements:

May be corrosive to metals.

Causes severe skin burns and eye damage.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**

potassium hydroxide; caustic potash

**Signal word:** Danger**Pictograms:****Hazard statements**

H290

May be corrosive to metals.

H314

Causes severe skin burns and eye damage.

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#### Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
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 or shower.
P363	Wash contaminated clothing before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTER/doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P390	Absorb spillage to prevent material damage.

#### Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

#### 2.3. Other hazards

None known.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
7732-18-5	Water	> 85 %
	231-791-2	
1310-58-3	potassium hydroxide; caustic potash	10 - 15 %
	215-181-3	
	019-002-00-8	
	Acute Tox. 4, Skin Corr. 1A; H302 H314	
57-55-6	1,2-Propanediol	< 0,5 %
	200-338-0	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	< 0,1 %
	200-661-7	
	603-117-00-0	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336	
8001-26-1	Linseed oil	< 0,1 %
	232-278-6	

Full text of H and EUH statements: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

- Take off contaminated clothing and shoes immediately.
- Show this safety data sheet to the doctor in attendance.
- First aider needs to protect himself.

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#### After inhalation

Move to fresh air.  
If symptoms persist, call a physician.  
If not breathing, give artificial respiration. Consult a physician.

#### After contact with skin

Wash off immediately with plenty of water for at least 15 minutes.  
Take off all contaminated clothing immediately.  
Consult a physician.

#### After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### After ingestion

Clean mouth with water and drink afterwards plenty of water.  
Call a physician immediately.  
Do NOT induce vomiting.  
Never give anything by mouth to an unconscious person.

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

May cause thermal burns.  
Irritation and corrosion, Cough, Shortness of breath, Spasm.  
Nausea, Vomiting, Diarrhoea  
May cause headache and dizziness.

#### **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**

Water, Carbon dioxide (CO<sub>2</sub>), Alcohol-resistant foam Dry powder,

#### **Unsuitable extinguishing media**

None known.

### **5.2. Special hazards arising from the substance or mixture**

Highly flammable.  
Fire may liberate hazardous vapours.  
In the event of fire the following can be released: Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke.

Keep away from fire, sparks and heated surfaces.

### **5.3. Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

#### **Additional information**

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## SECTION 6: Accidental release measures

### **6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Only qualified personnel equipped with suitable protective equipment may intervene. Immediately evacuate personnel to safe areas.

Do not breathe vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

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#### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

#### 6.3. Methods and material for containment and cleaning up

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local/national regulations (see section 13).

Soak up with inert absorbent material.

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

The product is insoluble and floats on water. Remove from surface water (e.g. by skimming or siphoning).

#### 6.4. Reference to other sections

13. Disposal considerations

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### **Advice on safe handling**

Avoid contact with skin and eyes.

Do not breathe vapours/dust.

Wash thoroughly after handling.

General industrial hygiene practice.

##### **Advice on protection against fire and explosion**

See also section 5

##### **Further information on handling**

Observe label precautions.

Avoid contact with skin, eyes and clothing.

Avoid contact with eyes.

Use barrier skin cream.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### **Requirements for storage rooms and vessels**

Keep in a dry, cool place.

Keep away from heat.

Keep away from fire, sparks and heated surfaces.

##### **Hints on joint storage**

None known.

#### 7.3. Specific end use(s)

Reagent for analysis

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### **Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
1310-58-3	Potassium hydroxide	-	2		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL
57-55-6	Propane-1,2-diol, particulates	-	10		TWA (8 h)	WEL

##### **Additional advice on limit values**

None known.

#### 8.2. Exposure controls

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#### Appropriate engineering controls

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

#### Protective and hygiene measures

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Wash hands before breaks and after work.

#### Eye/face protection

Safety glasses with side-shields

#### Hand protection

Use barrier skin cream.

Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374. In full contact:

Gloves material: Viton, Layer thickness: 0.70 mm, Breakthrough time: >480 min. In splash contact: Glove material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: > 30 min

#### Skin protection

Remove and wash contaminated clothing before re-use.

#### Respiratory protection

Breathing apparatus only if aerosol or dust is formed.

Recommended Filter type: ABEK-filter

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	brown, clear
Odour:	odourless
pH-Value (at 20 °C):	13,5

#### Changes in the physical state

Melting point:	not applicable
Initial boiling point and boiling range:	98 °C
Sublimation point:	not applicable
Softening point:	not applicable
Pour point:	no data available
:	no data available
Flash point:	25 °C
Sustaining combustion:	No data available

#### Flammability

Solid:	no data available
Gas:	no data available

#### Explosive properties

no data available

Lower explosion limits:	no data available
Upper explosion limits:	no data available
Ignition temperature:	no data available

#### Auto-ignition temperature

Solid:	no data available
Gas:	no data available

Decomposition temperature:	no data available
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**Oxidizing properties**

no data available

Vapour pressure: no data available

Vapour pressure: no data available@N09.006025 hPa

Density (at 20 °C): 1,056 g/cm<sup>3</sup>

Bulk density: not applicable

Water solubility: soluble  
(at 20 °C)**Solubility in other solvents**

soluble

Partition coefficient: no data available

Viscosity / dynamic: no data available

Viscosity / kinematic: no data available

Flow time: no data available

Vapour density: no data available

Evaporation rate: no data available

Solvent separation test: no data available

Solvent content: no data available

**9.2. Other information**

Solid content: not applicable

no data available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Reactivity Hazard: Oxidizing agents

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

Hazardous polymerisation does not occur.

**10.4. Conditions to avoid**

Keep away from heat.

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

**10.5. Incompatible materials**

woven fabric, Organic materials,

**10.6. Hazardous decomposition products**

Carbon monoxide, Carbon monoxide

**Further information**

None known.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Toxicokinetics, metabolism and distribution**

No toxicology information is available.

**Acute toxicity**

No data is available on the product itself.

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
1310-58-3	potassium hydroxide; caustic potash				
	oral	LD50 333 mg/kg	Rat	Merck	
57-55-6	1,2-Propanediol				
	oral	LD50 20000 mg/kg	rat	Toxicology and Appli	
	dermal	LD50 20800 mg/kg	rabbit	Raw Material Data Ha	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50 5045 mg/kg	rat	RTECS	
	dermal	LD50 12800 mg/kg	rabbit		
	inhalation (4 h) vapour	LC50 46,5 mg/l	rat		

#### Irritation and corrosivity

No known effect.

#### Sensitising effects

Contains no substance or substances classified as sensitising.

#### Carcinogenic/mutagenic/toxic effects for reproduction

Contains no ingredient listed as a carcinogen

#### STOT-single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### STOT-repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### Aspiration hazard

No aspiration toxicity classification

#### Specific effects in experiment on an animal

No data is available on the product itself.

#### Additional information on tests

no data available

#### Practical experience

#### Observations relevant to classification

no data available

#### Other observations

no data available

#### Further information

Handle in accordance with good industrial hygiene and safety practice.

## SECTION 12: Ecological information

### 12.1. Toxicity

No data is available on the product itself.

Do not flush into surface water or sanitary sewer system.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
1310-58-3	potassium hydroxide; caustic potash					
	Acute fish toxicity	LC50	80 mg/l	96 h	Gambusia affinis	IUCLID
57-55-6	1,2-Propanediol					
	Acute fish toxicity	LC50	51600 mg/l	96 h	Oncorhynchus mykiss (rainbow trout)	OECD 203
	Acute crustacea toxicity	EC50	34400 mg/l	48 h	Daphnia magna (Water flea)	Information taken from reference works and the literature.
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50	1400 mg/l	96 h	Lepomis macrochirus (Bluegill sunfish)	
	Acute algae toxicity	ErC50	> 1000 mg/l	72 h	Pseudokirchneriella subcapitata (green algae)	IUCLID
	Acute crustacea toxicity	EC50	13299 mg/l	48 h	Daphnia magna (Water flea)	IUCLID

**12.2. Persistence and degradability**

No data is available on the product itself.

**12.3. Bioaccumulative potential**

No data is available on the product itself.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
57-55-6	1,2-Propanediol	-0,92

**12.4. Mobility in soil**

no data available

**12.5. Results of PBT and vPvB assessment**

no data available

**12.6. Other adverse effects**

No known effect.

**Further information**

no data available

**SECTION 13: Disposal considerations**
**13.1. Waste treatment methods**
**Advice on disposal**

In accordance with local and national regulations.

**Waste disposal number of waste from residues/unused products**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

**Waste disposal number of used product**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste



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**Waste disposal number of contaminated packaging**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14: Transport information****Land transport (ADR/RID)**

**14.1. UN number:** UN 2920  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, FLAMMABLE, N.O.S.  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8+3



Classification code: CF1  
Special Provisions: 274  
Limited quantity: 1 L  
Transport category: 2  
Hazard No: 83  
Tunnel restriction code: D/E

**Other applicable information (land transport)**

Not subject to transport regulations.  
Excepted Quantities: E2

**Inland waterways transport (ADN)**

**Other applicable information (inland waterways transport)**  
Not tested

**Marine transport (IMDG)**

**14.1. UN number:** UN 2920  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, FLAMMABLE, N.O.S.  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8+3



Special Provisions: 274  
Limited quantity: 1 L  
EmS: F-E, S-C

**Other applicable information (marine transport)**

Not subject to transport regulations.  
Excepted Quantities: E2

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number:** UN 2920  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, FLAMMABLE, N.O.S.  
**14.3. Transport hazard class(es):** 8

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**14.4. Packing group:**

II

Hazard label:

8+3



Limited quantity Passenger:

0.5 L

IATA-packing instructions - Passenger:

851

IATA-max. quantity - Passenger:

1 L

IATA-packing instructions - Cargo:

855

IATA-max. quantity - Cargo:

30 L

**Other applicable information (air transport)**

Not subject to transport regulations.

Excepted Quantities: E2

Passenger-LQ: Y840

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

no data available

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

Not relevant

**Other applicable information**

no data available

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Water contaminating class (D): 1 - slightly water contaminating

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Changes**

Revision: 18.05.2015

Safety datasheet sections which have been updated: 1-16

**Relevant H and EUH statements (number and full text)**

H225 Highly flammable liquid and vapour.  
H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.

**Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

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