

Safety Data Sheet

according to Regulation (EC) No 1907/2006

39553 Soap Solution for Hardness Determination

Revision date: 22.09.2015

Product code: 39553

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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:

Flammable liquid: Flam. Liq. 2

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

Skin corrosion/irritation: Skin Corr. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

Highly flammable liquid and vapour.

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

propan-2-ol; isopropyl alcohol; isopropanol

Signal word: Danger

Pictograms:



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Hazard statements

- | | |
|------|--|
| H225 | Highly flammable liquid and vapour. |
| H290 | May be corrosive to metals. |
| H314 | Causes severe skin burns and eye damage. |

Precautionary statements

- | | |
|----------------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P233 | Keep container tightly closed. |
| P242 | Use non-sparking tools. |
| P243 | Take action to prevent static discharges. |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| P310 | Immediately call a POISON CENTER/doctor. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P363 | Wash contaminated clothing before reuse. |
| P370+P378 | In case of fire: Use dry sand to extinguish. |
| P370+P378 | In case of fire: Use dry sand to extinguish. |
| P390 | Absorb spillage to prevent material damage. |
| P501 | Dispose of contents/container to Disposal. |

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

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
7732-18-5	Water			30 - 30 %
	231-791-2			
57-55-6	1,2-Propanediol			10 - 20 %
	200-338-0			
8001-26-1	Linseed oil			10 - 20 %
	232-278-6			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			10 - 20 %
	200-661-7	603-117-00-0		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
1310-58-3	potassium hydroxide; caustic potash			5 - 15 %
	215-181-3	019-002-00-8		
	Acute Tox. 4, Skin Corr. 1A; H302 H314			
64-02-8	tetrasodium ethylene diamine tetraacetate			< 1 %
	200-573-9	607-428-00-2		
	Acute Tox. 4, Eye Dam. 1; H302 H318			

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 all contaminated clothing immediately.

After inhalation

Move to fresh air.

After contact with skin

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Show this safety data sheet to the doctor in attendance.

After ingestion

Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person.

Consult a physician. Show this safety data sheet to the doctor in attendance.

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

Irritation and corrosion

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

Treat symptomatically.

SECTION 5: Firefighting measures

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5.1. Extinguishing media

Suitable extinguishing media

Combustible Liquid

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

None known.

5.2. Special hazards arising from the substance or mixture

Fire may liberate hazardous vapours.

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

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.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste.

6.4. Reference to other sections

13. Disposal considerations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas. Do not breathe vapours/dust.

Observe label precautions.

Advice on protection against fire and explosion

Reacts with the following substances: Oxidizing agents

Further information on handling

No information available.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep tightly closed in a dry, cool and well-ventilated place.

Keep away from open flames, hot surfaces and sources of ignition. Keep away from heat.

Hints on joint storage

Do not store near acids.

Further information on storage conditions

No information available.

7.3. Specific end use(s)

Reagent for analysis

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	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

no data available

8.2. Exposure controls

Appropriate engineering controls

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Ensure that eyewash stations and safety showers are close to the workstation location.

Protective and hygiene measures

Wash hands before breaks and at the end of workday.
Take off contaminated clothing and shoes immediately.

Eye/face protection

Safety glasses with side-shields

Hand protection

Use barrier skin cream.
Wash hands before breaks and after work.
Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.

Skin protection

Remove and wash contaminated clothing before re-use.

Respiratory protection

Provide adequate ventilation.
Breathing apparatus only if aerosol or dust is formed.

Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: brown
Odour: alcohol-like

Test method

pH-Value (at 20 °C): 13,6

Changes in the physical state

Melting point: not applicable
Initial boiling point and boiling range: 89 °C
Sublimation point: not applicable
Softening point: not applicable
Pour point: no data available
Flash point: 15 °C DIN 51755

Flammability

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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

Oxidizing properties

no data available

Vapour pressure: (2-Prop.) 43 hPa
(at 20 °C)

Vapour pressure: no data available

Density (at 20 °C): 1,076 g/cm³

Bulk density: not applicable

Water solubility: completely soluble

Solubility in other solvents

soluble (Acid)

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: no data available

Corrosive in contact with metals

Aluminium : 381 mm/a

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

Reactivity Hazard:

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Reacts with the following substances: Oxidizing agents

10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible materials

no data available

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10.6. Hazardous decomposition products

Heating can release hazardous gases. Carbon monoxide, Carbon dioxide (CO₂),

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

No data is available on the product itself.

Acute toxicity

No data is available on the product itself.

CAS No	Chemical name					
	Exposure route	Dose	Species	Source	Method	
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			
1310-58-3	potassium hydroxide; caustic potash					
	oral	LD50 333 mg/kg	Rat	Merck		
64-02-8	tetrasodium ethylene diamine tetraacetate					
	oral	LD50 1658 mg/kg	rat			

Irritation and corrosivity

Causes skin and eye burns.

Sensitising effects

No known effect.

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

This information is not available.

Specific effects in experiment on an animal

No data is available on the product itself.

Additional information on tests

Effects due to ingestion may include: Vomiting Control of circulatory system, shock therapy if needed. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

Practical experience

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Observations relevant to classification

no data available

Other observations

no data available

Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information
12.1. Toxicity

Do not flush into surface water or sanitary sewer system.

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

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No known effect.

SECTION 13: Disposal considerations
13.1. Waste treatment methods
Disposal recommendations

Our local agencies will accept used cuvettes to ensure their proper disposal.

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In accordance with local and national regulations.

List of Wastes Code - 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

List of Wastes Code - 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

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

14.1. UN number: UN 2924
14.2. UN proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (propan-2-ol; isopropyl alcohol; isopropanol- / potassium hydroxide; caustic potash-solution)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3+8





Classification code: FC
Special Provisions: 274
Limited quantity: 1 L
Excepted quantity: E2
Transport category: 2
Hazard No: 338
Tunnel restriction code: D/E

Inland waterways transport (ADN)

Other applicable information (inland waterways transport)
Not tested

Marine transport (IMDG)

14.1. UN number: UN 2924
14.2. UN proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3+8



Marine pollutant: --
Special Provisions: 274
Limited quantity: 1 L
Excepted quantity: E2
EmS: F-E, S-C

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 2924
14.2. UN proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S.

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14.3. Transport hazard class(es): 3**14.4. Packing group:** II

Hazard label: 3+8



Special Provisions: A3
Limited quantity Passenger: 0.5 L
Passenger LQ: Y340
Excepted quantity: E2
IATA-packing instructions - Passenger: 352
IATA-max. quantity - Passenger: 1 L
IATA-packing instructions - Cargo: 363
IATA-max. quantity - Cargo: 5 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Observe label precautions.

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

Not relevant

Other applicable information

Additional Information: This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification: Proper Shipping Name: Chemical Kit, Hazard Class: 9, UN Number 3316, Package group II, EMS Code: F-A, S-P

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

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

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

SECTION 16: Other information**Changes**

Revision: 22.09.2015

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.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Further Information

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



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