

Safety Data Sheet

according to Regulation (EC) No 1907/2006

27539-29 THM Plus Reagent 1

Revision date: 14.08.2015

Product code: 2753929

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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

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

May be corrosive to metals.

Harmful if swallowed.

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:**

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Hazard statements

- H290 May be corrosive to metals.
 H302 Harmful if swallowed.
 H314 Causes severe skin burns and eye damage.

Precautionary statements

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P270 Do not eat, drink or smoke when using this product.
 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.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P310 Immediately call a POISON CENTER/doctor.
 P363 Wash contaminated clothing before reuse.
 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

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			50-60 %
	231-791-2			
1310-58-3	potassium hydroxide; caustic potash			50-60 %
	215-181-3	019-002-00-8		
	Acute Tox. 4, Skin Corr. 1A; H302 H314			
10102-17-7	Sodium thiosulfate			1-5 %
	231-867-5			

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.
 Show this safety data sheet to the doctor in attendance.

After inhalation

- Move to fresh air. Consult a physician. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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After contact with skin

Wash off immediately with plenty of water for at least 15 minutes. Consult a physician.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. Show this safety data sheet to the doctor in attendance.

After contact with eyes

Rinse immediately with plenty of water for at least 15 minutes. Call a physician immediately.

After ingestion

Do NOT induce vomiting. Drink 1 or 2 glasses of water.
Never give anything by mouth to an unconscious person.
Call a physician immediately.

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

5.1. Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

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

Avoid contact with skin and eyes. Do not breathe vapours or spray mist. Use only in well-ventilated areas.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep away from heat. Keep container tightly closed in a dry and well-ventilated place.

Hints on joint storage

Do not store near acids.

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Further information on storage conditions

Keep locked up or in an area accessible only to qualified or authorised persons.

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
1310-58-3	Potassium hydroxide	-	2		STEL (15 min)	WEL

Additional advice on limit values

None known.

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.

Protective and hygiene measures

Wash hands before breaks and at the end of workday.

Eye/face protection

Safety glasses with side-shields

Hand protection

Use barrier skin cream. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Skin protection

Avoid contact with skin, eyes and clothing.

Respiratory protection

Ensure adequate ventilation, especially in confined areas.

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:	colourless
Odour:	odourless
pH-Value (at 20 °C):	>14

Changes in the physical state

Melting point:	not applicable
Sublimation point:	not applicable
Softening point:	not applicable
Pour point:	not applicable
Flash point:	not applicable

Flammability

Solid:	not applicable
Gas:	not applicable

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Explosive properties

not applicable

Lower explosion limits:

not applicable

Upper explosion limits:

not applicable

Ignition temperature:

not applicable

Auto-ignition temperature

Solid:

no data available

Gas:

no data available

Decomposition temperature:

no data available

Oxidizing properties

not applicable

Vapour pressure:

no data available

Bulk density:

not applicable

Water solubility:

soluble

Solubility in other solvents

no data available

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

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

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

To avoid thermal decomposition, do not overheat.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight. Decomposes on heating.

10.5. Incompatible materials

Acids, Alcohols, Metals, Peroxides

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

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Toxicokinetics, metabolism and distribution

No toxicology information is available.

Acute toxicity

No data is available on the product itself.

ATEmix calculated

ATE (oral) 420,0 mg/kg

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
1310-58-3	potassium hydroxide; caustic potash				
	oral	LD50 mg/kg	333	Rat	Merck
10102-17-7	Sodium thiosulfate				
	oral	LD50 mg/kg	>5000	rat	RTECS

Irritation and corrosivity

Causes 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

No aspiration toxicity classification

Specific effects in experiment on an animal

No toxicology information is 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

No data is available on the product itself.

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
10102-17-7	Sodium thiosulfate					
	Acute fish toxicity	LC50 mg/l	>10000	96 h		
	Acute crustacea toxicity	EC50 mg/l	1223	48 h		

12.2. Persistence and degradability

No data is available on the product itself.

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12.3. Bioaccumulative potential

No data is available on the product itself.

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.

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

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

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

<u>14.1. UN number:</u>	UN 1814
<u>14.2. UN proper shipping name:</u>	Potassium hydroxide solution
<u>14.3. Transport hazard class(es):</u>	8
<u>14.4. Packing group:</u>	II
Hazard label:	8



Classification code:	C5
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E

Inland waterways transport (ADN)**Other applicable information (inland waterways transport)**

Not tested

Marine transport (IMDG)

<u>14.1. UN number:</u>	UN 1814
<u>14.2. UN proper shipping name:</u>	POTASSIUM HYDROXIDE SOLUTION

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14.3. Transport hazard class(es): 8**14.4. Packing group:** II

Hazard label: 8



Special Provisions: -

Limited quantity: 1 L

Excepted quantity: E2

EmS: F-A, S-B

Air transport (ICAO-TI/IATA-DGR)**14.1. UN number:** UN 1814**14.2. UN proper shipping name:** POTASSIUM HYDROXIDE SOLUTION**14.3. Transport hazard class(es):** 8**14.4. Packing group:** II

Hazard label: 8



Special Provisions: A3 A803

Limited quantity Passenger: 0.5 L

Passenger LQ: Y840

Excepted quantity: E2

IATA-packing instructions - Passenger: 851

IATA-max. quantity - Passenger: 1 L

IATA-packing instructions - Cargo: 855

IATA-max. quantity - Cargo: 30 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

Danger releasing substance: Not relevant

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

Not relevant

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

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

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

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Changes

Revision: 14.08.2015

Safety datasheet sections which have been updated: 2, 11

Revision: 26.06.2015

Safety datasheet sections which have been updated: 14

Revision: 3.09.2014

Safety datasheet sections which have been updated: 4-16

Relevant H and EUH statements (number and full text)

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

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.)