

Safety Data Sheet

according to Regulation (EC) No 1907/2006

21194-49 Nessler Reagent

Revision date: 15.01.2020

Product code: 2119449

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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. 3

Acute toxicity: Acute Tox. 3

Skin corrosion/irritation: Skin Corr. 1A

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazardous to the aquatic environment: Aquatic Chronic 1

Hazard Statements:

May be corrosive to metals.

Toxic if swallowed.

Toxic if inhaled.

Causes severe skin burns and eye damage.

May cause damage to organs through prolonged or repeated exposure.

Very toxic to aquatic life with long lasting effects.

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

sodium hydroxide; caustic soda

Mercury(II) iodide

Signal word: Danger

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Pictograms:



Hazard statements

H290	May be corrosive to metals.
H310	Fatal in contact with skin.
H301+H331	Toxic if swallowed or if inhaled.
H314	Causes severe skin burns and eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P262	Do not get in eyes, on skin, or on clothing.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

Additional advice on labelling

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

2.3. Other hazards

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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			70-80 %
	231-791-2			
1310-73-2	sodium hydroxide; caustic soda			10-20 %
	215-185-5	011-002-00-6		
	Skin Corr. 1A; H314			
7774-29-0	Mercury(II) iodide			5-10 %
	231-873-8	080-002-00-6		
	Acute Tox. 1, Acute Tox. 2, Acute Tox. 2, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1; H310 H330 H300 H373 H400 H410			
7681-82-5	Sodium iodide			1-10 %
	231-679-3			
	Skin Irrit. 2, Eye Irrit. 2A, Aquatic Acute 1; H315 H319 H400			

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

After contact with skin

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

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.
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

5.1. Extinguishing media

Suitable extinguishing media

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

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Unsuitable extinguishing media

None known.

5.2. Special hazards arising from the substance or mixture

Fire may liberate hazardous vapours.

Fire may cause evolution of: Mercury, Sodium oxides

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 or spray mist. Avoid contact with skin and eyes.

Further information on handling

Wash hands before breaks and at the end of workday.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage temperature: 5-25 °C, Keep away from heat and sources of ignition.

Hints on joint storage

Do not store together with Acids, Ammonia

Store in a cool and shaded area. Perishable if frozen.

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)

Reagent for analysis

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
1310-73-2	Sodium hydroxide	-	2		STEL (15 min)	WEL

Additional advice on limit values

None known.

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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.

Eyeface 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

Avoid contact with skin, eyes and clothing.

Respiratory protection

Provide adequate ventilation. Use only in area provided with appropriate exhaust ventilation.

Environmental exposure controls

Do not flush into surface water or sanitary sewer system.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid	
Colour:	yellow	
Odour:	odourless	
pH-Value (at 20 °C):		12,1

Changes in the physical state

Melting point:	not applicable
Initial boiling point and boiling range:	110 °C
Sublimation point:	no data available
Softening point:	not applicable
Pour point:	no data available
Flash point:	not applicable
Sustaining combustion:	No data available

Flammability

Solid:	not applicable
Gas:	not applicable

Explosive properties

not applicable

Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Ignition temperature:	no data available

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable

Decomposition temperature: no data available

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Oxidizing properties

not applicable

Vapour pressure:

no data available

Vapour pressure:

no data available

Density (at 20 °C):

1,265 g/cm³

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

no data available

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

see chapter: 10.3

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Reacts with the following substances:

Metals, Strong acids

10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible materials

Acids, Oxidizing agents, Organic materials, Ammonia

10.6. Hazardous decomposition products

Under fire conditions: see chapter 5

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

No toxicology information is available.

Acute toxicity

Toxic if swallowed.

Toxic by inhalation.

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7774-29-0	Mercury(II) iodide				
	oral	LD50 18 mg/kg	rat		
	dermal	ATE 5 mg/kg			
	inhalation vapour	ATE 0,5 mg/l			
	inhalation aerosol	ATE 0,05 mg/l			
7681-82-5	Sodium iodide				
	oral	LD50 4340 mg/kg	rat		

Irritation and corrosivity

The product causes burns of eyes, skin and mucous membranes.

Sensitising effects

No known effect.

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

H373 - May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

No aspiration toxicity classification

Specific effects in experiment on an animal

No toxicology information is available.

Additional information on tests

None known.

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
1310-73-2	sodium hydroxide; caustic soda					
	Acute fish toxicity	LC50 45,4 mg/l	96 h	Onchorhynchus mykiss		
7774-29-0	Mercury(II) iodide					
	Acute fish toxicity	LC50 0,13 mg/l	96 h	Leuciscus idus (Golden orfe)		
	Acute crustacea toxicity	EC50 0,0052 mg/l	48 h	Daphnia magna (Water flea)		
7681-82-5	Sodium iodide					
	Acute fish toxicity	LC50 860 mg/l	96 h			
	Acute crustacea toxicity	EC50 0,17 mg/l	48 h			

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12.2. Persistence and degradability

No data is available on the product itself.

12.3. Bioaccumulative potential

no data available

12.4. Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

no data available

12.6. Other adverse effects

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of as special waste in compliance 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

List of Wastes Code - 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 2922
<u>14.2. UN proper shipping name:</u>	CORROSIVE LIQUID, TOXIC, N.O.S. (Mercuric Iodide/Sodium Hydroxide Solution)
<u>14.3. Transport hazard class(es):</u>	8
<u>14.4. Packing group:</u>	II
Hazard label:	8+6.1



Classification code:	CT1
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	86
Tunnel restriction code:	E

Inland waterways transport (ADN)

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Other applicable information (inland waterways transport)

Not tested

Marine transport (IMDG)

14.1. UN number:	UN 2922
14.2. UN proper shipping name:	CORROSIVE LIQUID, TOXIC, N.O.S. (Mercuric Iodide/Sodium Hydroxide Solution)
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8+6.1
	 
Marine pollutant:	PP
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-A, S-B
Segregation group:	alkalis

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:	UN 2922
14.2. UN proper shipping name:	CORROSIVE LIQUID, TOXIC, N.O.S. (Mercuric Iodide/Sodium Hydroxide Solution)
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8+6.1
	 
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: yes

Danger releasing substance: sodium hydroxide; caustic soda
Mercury(II) iodide**14.6. Special precautions for user**

Use personal protective equipment.

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

not applicable

Other applicable information

Additional Information: This product may be shipped as part of a chemical kit composed of various compatible

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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
These transport data apply to the entire pack

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). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 3 - strongly 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: 15.01.2020
Safety datasheet sections which have been updated: 2, 11, 14-16

Revision: 28.04.2017
Safety datasheet sections which have been updated: 2, 9, 14

Revision: 27.04.2015
Safety datasheet sections which have been updated: 2, 4, 11

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Acute Tox. 3; H301	Calculation method
Acute Tox. 3; H331	Calculation method
Skin Corr. 1A; H314	Calculation method
STOT RE 2; H373	Calculation method
Aquatic Chronic 1; H410	Calculation method

Relevant H and EUH statements (number and full text)

H290 May be corrosive to metals.
H300 Fatal if swallowed.
H301 Toxic if swallowed.
H301+H331 Toxic if swallowed or if inhaled.
H310 Fatal in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H331 Toxic if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

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.)

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

23765-26 Polyvinyl Alcohol Dispersing Agent

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**

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

2.2. Label elements**Additional advice on labelling**

Not a hazardous substance or mixture according to 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			> 95 %
	231-791-2			
9002-89-5	Polyvinyl alcohol			< 5 %
	209-183-3			

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.

If skin irritation persists, call a physician.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.

Show this safety data sheet to the doctor in attendance.

After ingestion

If conscious, drink plenty of water. Call a physician immediately. Show this safety data sheet to the doctor in attendance.

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

No known effect.

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.

Unsuitable extinguishing media

No Limit

5.2. Special hazards arising from the substance or mixture

Fire may liberate hazardous vapours.

5.3. Advice for firefighters

In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. 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.

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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

Sweep up or vacuum up spillage and collect in suitable container for disposal.

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.

Advice on protection against fire and explosion

See also section 5

Further information on handling

Avoid contact with skin, eyes and clothing.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

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

Hints on joint storage

None known.

Further information on storage conditions

no data available

7.3. Specific end use(s)

Reagent for analysis

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Additional advice on limit values**

None known.

8.2. Exposure controls**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

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material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: > 30 min

Skin protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection

Provide adequate ventilation.

Environmental exposure controls

Should not be released into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid	
Colour:	red brown	
Odour:	slight unpleasant	
pH-Value (at 20 °C):		5,4
Changes in the physical state		
Melting point:		0 °C
Initial boiling point and boiling range:		98 °C
Sublimation point:		not applicable
Softening point:		not applicable
Pour point:		not applicable
Flash point:		not applicable
Flammability		
Solid:		not applicable
Gas:		not applicable
Explosive properties		
not applicable		
Lower explosion limits:		not applicable
Upper explosion limits:		not applicable
Ignition temperature:		not applicable
Auto-ignition temperature		
Solid:		not applicable
Gas:		not applicable
Decomposition temperature:		no data available
Oxidizing properties		
not applicable		
Vapour pressure:		no data available
Density (at 20 °C):		1,0042 g/cm ³
Bulk density:		not applicable
Water solubility: (at 20 °C)		soluble
Solubility in other solvents		
no data available		
Partition coefficient:		no data available
Viscosity / dynamic:		no data available
Viscosity / kinematic:		no data available

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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**

No dangerous reaction known under conditions of normal use.

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

Extremes of temperature and direct sunlight.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Carbon oxides

Further information

Stable under recommended storage conditions.

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.

Irritation and corrosivity

No known effect.

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.

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23765-26 Polyvinyl Alcohol Dispersing Agent

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Additional information on tests

None known.

Practical experience**Observations relevant to classification**

None known.

Other observations

None known.

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.

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.

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

Should not be released into the environment.

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

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

List of Wastes Code - 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)**

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14.2. UN proper shipping name: Not subject to transport regulations.

Inland waterways transport (ADN)

14.2. UN proper shipping name: Not tested

Marine transport (IMDG)

14.2. UN proper shipping name: Not subject to transport regulations.

Air transport (ICAO-TI/IATA-DGR)

14.2. UN proper shipping name: Not subject to transport regulations.

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

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

EU regulatory information

Additional information

The product does not need to be labelled in accordance with EC directives or respective national laws.

National regulatory information

Water contaminating class (D): -- not 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: 16.02.2018

Safety datasheet sections which have been updated: 4, 12

Revision: 22.09.2014

Safety datasheet sections which have been updated: 4 - 16

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.

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

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Sspr g C TI g DeotfRatfAo Af the 1ci 1taoNe:d Rrtcle aoO Af the NAd baoy:coOelta/ Rm**TxkIAcNt DeotfRt**

23766-26 Mineral Stabilizer Solution

Tx. eveRat DeotfRtOc1e1 Af the 1ci 1taoNe Al d Rrtcle aoOc1e1 aORFleOamaR1t**U1e Af the 1ci 1taoNe:d Rrtcle**

Water analysis

TxDataM Af the 1cbbel Af the 1afety Oata 1heet

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

**Txs d elreNy tevbhAoe
ocd i ell**

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

Sspr g C 2I Hanal OI DeotfRatfAo**2Txpva11RatfAo Af the 1ci 1taoNe Al d Rrtcle**

. emvatfAo zp (CAxT272:2)) 0

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

2x8ai eveved eot1

L OORF AoavaORFNe Ao vai evRm

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2xEthel hanal OI

no data available

Sspr g C 3I pAd bA1RfAo:RfAl d atfAo Ao RmleOret1**3x- Rrtcle1**

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Hanal OAc1 NAd bAeot1

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
7732-18-5	Water			50-60 %
	231-791-2			
6132-04-3	tri-Sodium citrate dihydrate			20-30 %
	200-675-3			
6381-59-5	Potassium sodium tartrate tetrahydrate			20-30 %
	205-698-2			

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

Sspr gC 4l Mf1t aRd ea1cle1**4xTxDe1N RbtfAo Af fr1t aRd ea1cle1****F eoel avRfAld atfAo**

Take off all contaminated clothing immediately.

L ftel RbhavafAo

Move to fresh air.

L ftel NAotaN GRh 1/ RWash off immediately with soap and plenty of water while removing all contaminated clothes and shoes .
If skin irritation persists, call a physician.**L ftel NAotaN GRh eye1**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.

Show this safety data sheet to the doctor in attendance.

L ftel Rbre1tfAo

If conscious, drink plenty of water. Call a physician immediately. Show this safety data sheet to the doctor in attendance.

4xTx- A1t Rl bAltaot 1yd btAd 1 aoOeffeN1wi Ath aNcte aoOeaveO

No known effect.

4xTxOONatfAo Af aoy Rl d eORate d eONavatteotfAo aoO1beNvtleatd eot oeeOeO

Treat symptomatically.

Sspr gC , l Mf1t aRd ea1cle1**4xTx utRmc FhRmd eORa****ScRai ve eutRmc FhRmd eORa**Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
The product itself does not burn.**4xTxSbeNvhanalO1 aP1RmfAd the 1ci 1taoNe Al d Rtle**

Fire may liberate hazardous vapours.

4xTxLORNe fAl fRfRhtel1

In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

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L OORFAoavRfAI d atFAo

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

Sspr g C 6l LNFDeotavleea1e d ea1cle1**6xTxl1AoavbleNactFAo1vblAteNfRe eqcRd eot aoOed elmeoNy bIANeOcle1**

Use personal protective equipment.

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

For personal protection see section 8.

6x2xsORFAod eotavbleNactFAo1

Do not flush into surface water or sanitary sewer system.

6x3x- ethAO1 aoO d atel RvfAI NAotaRd eot aoO NeaoRmcb

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).

6x4x. efel eoNe tA Athel 1eNfFAo1

13. Disposal considerations

Sspr g C 7l HaoORmaoO 1tAlame**7xTxl1eNactFAo1 fAI 1afe haoORm****L ORNe Ao 1afe haoORm**

Avoid contact with skin and eyes.

Do not breathe vapours/dust.

Wash thoroughly after handling.

L ORNe Ao blAteNfFAo amAR1t fIpe aoO eubvA1FAo

See also section 5

Mcl thel RfAI d atFAo Ao haoORm

Avoid contact with skin, eyes and clothing.

7x2xpAoORFAo1 fAI 1afe 1tAlamewRncORmaoy RnAd batf RFR1**. eqcRd eot1 fAI 1tAlame IAd 1 aoORe11evl**

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

HRt1 Ao jARt 1tAlame

no data available

7x3xSbeNFRNeoOc1ez1(

Reagent for analysis

Sspr g C 0l subA1cle NAotl Avl:bel 1AoavblAteNfFAo**0xTxpAotlAvbalad etel 1****0x2xs subA1cle NAotl Avl****L bblAbI Rte eonRbeel RmNAotl Avl**

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

klAteNfRe aoOhymfRe d ea1cle1

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.

General industrial hygiene practice.

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Sye:faNe bl AteNFAo

Safety glasses with side-shields

HaoO bl AteNFAo

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

S/ R bl AteNFAo

Avoid contact with skin, eyes and clothing.

. e1bRatAlly bl AteNFAo

Provide adequate ventilation.

Ss pr gC 9I khy1RNavaoONhed RNavblAbeltr1**9xTropAl d atFAo Ao i a1R bhy1RNavaoONhed RNavblAbeltr1**

Physical state:	liquid
Colour:	clear, colourless
Odour:	odourless
pH-Value (at 20 °C):	8,7
phaome1 R the bhy1RNav1tate	
Melting point:	- 8 °C
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:	no data available
Mad d ai Rty	
Solid:	no data available
Gas:	no data available
subv1RRe blAbeltr1	
not applicable	
Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Ignition temperature:	no data available
LctA5RrFAo ted bel atcle	
Solid:	no data available
Gas:	no data available
Decomposition temperature:	no data available
EuRPhombIAbeltr1	
no data available	
Vapour pressure:	no data available
Vapour pressure:	no data available
Density (at 20 °C):	1,29 g/cm ³
Bulk density:	no data available
Water solubility: (at 20 °C)	soluble

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SAci RPy B Athel 1AReot1

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

9xExthel RfAl d atfAo

Solid content:

no data available

no data available

Sspr gC T) I Stai RPy aoOleaNRPy

T) xTx. eaNRPy

No dangerous reaction known under conditions of normal use.

T) xXp hed RNav1tai RPy

The product is chemically stable.

T) xXkA11R RPy Af hanal OAc1 leaNRfAo1

Hazardous polymerisation does not occur.

T) xXp AoORfAo1 tA aRAfO

Extremes of temperature and direct sunlight.

T) x xqNAd batf ve d atel RvI

Organic materials

T) xHana lOAc1 CeNAd bA1RfAo bIAOcN1

Sodium oxides

McIthel RfAl d atfAo

Stable under recommended storage conditions.

Sspr gC TTI rAuNAvAnfNavRfAl d atfAo

TTxXqfAl d atfAo Ao tAuNAvAnfNaveffeN1

L Ncte tAuNRPy

No data is available on the product itself.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
6132-04-3	tri-Sodium citrate dihydrate				
	oral	LD50 >8000 mg/kg	rat		

gIRatfAo aoONAlA1RPy

No known effect.

McIthel RfAl d atfAo

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

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Sspr gEC T2I sNAAnRfAl d atFAo**T2Xr AuRry**

No data is available on the product itself.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
6132-04-3	tri-Sodium citrate dihydrate					
	Acute crustacea toxicity	EC50	736 mg/l	48 h		

T2xkel1FteNe aoOemlaOai Rry

No data is available on the product itself.

T2xBrAaNCd cAtRe bAteofAv

No data is available on the product itself.

T2x- Ai Rry R 1AR

No data is available on the product itself.

T2x x. e1c1 Af kBr aoORkRB a11e11d eot

No data is available on the product itself.

T2xExthel aOel1e effeN1

No data is available on the product itself.

Mlthel RfAl d atFAo

Should not be released into the environment.

Sspr gEC T3I DFbA1avNAo1RdelatFAo1**T3xWa1te tleatd eot d ethAO1****DFbA1avleNAd d eoOatFAo1**

In accordance with local and national regulations.

8Ft Af Wa1te1 pAOe 5le1Rce1:coc1eOblAOcN1

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

8Ft Af Wa1te1 pAOe 5c1eOblAOcN1

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

8Ft Af Wa1te1 pAOe 5NAotad RbteObaN arrm

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

pAotad RbteObaN arrm

Dispose of as unused product.

Sspr gEC T4I rlao1bAlt RfAl d atFAo**8aoTlao1bAlt z.D. .: D(****T4xUC blAbel 1hRbRmoad el**

Not subject to transport regulations.

gaoO GatelGay1 tlao1bAlt z.DC(**T4xUC blAbel 1hRbRmoad el**

Not tested

- alRe tlao1bAlt zD DF(**T4xUC blAbel 1hRbRmoad el**

Not subject to transport regulations.

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L R tiao1bAl t zp LE 5 gg_rL 5DF . (**T4xUC bIAbel 1hRbRmoad el**

Not subject to transport regulations.

T4x sORFAod eotavhanal O1

ENVIRONMENTALLY HAZARDOUS: no

T4xSbeNfAvbleNactFAo1 fAl c1el

no data available

T4xrlao1bAl t R i cv aNNAIORmtALooeu ggAf - al bAvaoOthe dP pAOe

Not relevant

Sspr gEC T, I . emcvatAl y RfAl d atFAo**T, xTxSafetywheath aoO eoRFAod eotavlemcvatFAo1:enRfAtFAo 1beNfRfAl the 1ci 1taoNe Al d Rrtcle****sU lemcvatAl y RfAl d atFAo****L OORFAoavRfAl d atFAo**

The product does not need to be labelled in accordance with EC directives or respective national laws.

CatFAoavlemcvatAl y RfAl d atFAo

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

T, xphed RfAv1afety a11e11d eot

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

Sspr gEC T6I Ethel RfAl d atFAo**phaome1**

Revision: 16.02.2018

Safety datasheet sections which have been updated: 4, 12

Revision: 01.08.2014

Safety datasheet sections which have been updated: 2, 4-16

Mcl thel gFAI d atFAo

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.

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