

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**27700-20 Singlet pH Buffer Solution; pH 4.01**

Revision date: 03.05.2021

Product code: 2770020

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

27700-20 Singlet pH Buffer Solution; pH 4.01

**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**

no data available

**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			> 97 %
	231-791-2			
877-24-7	Potassium hydrogen phthalate			< 1,5 %
	212-889-4			
	Acute Tox. 4, Eye Irrit. 2; H312 H319			

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.

**After inhalation**

Move to fresh air.  
If symptoms persist, call a physician.

**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**

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**After ingestion**

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

**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**

None known.

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

Fire may liberate hazardous vapours.

**5.3. Advice for firefighters**

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

**Additional information**

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

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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 (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers 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.

##### **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.

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

Reagent for analysis

#### SECTION 8: Exposure controls/personal protection

##### **8.1. Control parameters**

##### **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. Wash hands before breaks and at the end of workday. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Glove material (Break through time > 480 Min.):

butyl-rubber (0,5 mm)

Fluorinated rubber (0,4 mm)

###### **Skin protection**

Avoid contact with skin, eyes and clothing.

###### **Respiratory protection**

Provide adequate ventilation.

###### **Environmental exposure controls**

Should not be released into the environment.

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**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	red
Odour:	odourless
pH-Value (at 20 °C):	4,01

**Changes in the physical state**

Melting point:	no data available
Initial boiling point and boiling range:	~100 °C
Sublimation point:	no data available
Softening point:	not applicable
Pour point:	no data available
:	no data available
Flash point:	not applicable

**Flammability**

Solid:	not applicable
Gas:	not applicable

**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:	not applicable
Gas:	not applicable

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

no data available

Vapour pressure:	no data available
Vapour pressure:	no data available
Density (at 20 °C):	1,02 g/cm <sup>3</sup>
Bulk density:	no data available
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
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

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#### 9.2. Other information

Solid content:

no data available

no data available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

no data available

#### 10.2. Chemical stability

no data available

#### 10.3. Possibility of hazardous reactions

no data available

#### 10.4. Conditions to avoid

no data available

#### 10.5. Incompatible materials

no data available

#### 10.6. Hazardous decomposition products

no data available

#### Further information

Stable under recommended storage conditions.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
877-24-7	Potassium hydrogen phthalate				
	oral	LD50 3200 mg/kg	rat	RTECS	
	dermal	LD50 >1000 mg/kg	guinea pig		

##### Irritation and corrosivity

Based on available data, the classification criteria are not met.

##### Sensitising effects

Based on available data, the classification criteria are not met.

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

Based on available data, the classification criteria are not met.

##### STOT-single exposure

Based on available data, the classification criteria are not met.

##### STOT-repeated exposure

Based on available data, the classification criteria are not met.

##### Aspiration hazard

Based on available data, the classification criteria are not met.

##### Specific effects in experiment on an animal

no data available

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#### 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 information on ecology is available.  
Do not flush into surface water or sanitary sewer system.

#### 12.2. Persistence and degradability

no data available

#### 12.3. Bioaccumulative potential

no data available

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
877-24-7	Potassium hydrogen phthalate	-2,73

#### 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 data available

#### Further information

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

### 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)

##### Other applicable information (land transport)

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

**Marine transport (IMDG)****Other applicable information (marine transport)**

No dangerous good in sense of this transport regulation.

**Air transport (ICAO-TI/IATA-DGR)****Other applicable information (air transport)**

No dangerous good in sense of this transport regulation.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

No special precautions required.

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

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 juveniles according to the 'juvenile work protection guideline' (94/33/EC).

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: 03.05.2021

Safety datasheet sections which have been updated: 7

Revision: 10.03.2020

Safety datasheet sections which have been updated: 2, 4, 11, 15

Revision: 30.07.2018

Safety datasheet sections which have been updated: 14

Revision: 28.02.2018

Safety datasheet sections which have been updated: 8, 11, 13, 15

Revision: 04.07.2014

Safety datasheet sections which have been updated: 2, 3

Revision: 27.11.2012

Safety datasheet sections which have been updated: 2-15

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

H312 Harmful in contact with skin.

H319 Causes serious eye irritation.

**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.)*