



# Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

Trade name: Reference solution pH 4.005  
Product No: R03.101  
Version: 1.1

Page 1 of 6

Revision date: 2017-08-18

---

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**1.1 Product identifier:** Reference solution pH 4.005

**1.2 Relevant identified uses of the substance**  
Measurement of pH.

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

**Supplier:**

DFM A/S  
Matematiktorvet 307  
2800 Kgs. Lyngby  
Denmark  
Telephone: +45 45 93 11 44  
E-Mail crm@dfm.dk

**1.4 EMERGENCY TELEPHONE NUMBER:**

**Giftlinjen:** +45 82 12 12 12 - 24 hour emergency service

**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:**  
None

**2.2 Label elements**  
None

**2.3 Other hazards**  
None

---

## SECTION 3. Composition/information on ingredients

**3.1 Substances**  
Not applicable

**3.2 Mixtures**  
**Description of the mixture:** Aqueous solution of potassium hydrogen phthalate.

**Hazardous ingredients**

Substance name	CAS No.	Classification
Water	7732-18-5	
potassium hydrogen phthalate	877-24-7	Eye irrit. 2 H319



# Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

Trade name: Reference solution pH 4.005  
Product No: R03.101  
Version: 1.1

Page 2 of 6

Revision date: 2017-08-18

---

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### **General information:**

Take off all contaminated clothing immediately.

#### **Following inhalation:**

Move to fresh air.

If symptoms persist consult your doctor.

#### **Following skin contact:**

Wash off immediately with plenty of water.

If symptoms persist consult your doctor.

#### **Following eye contact:**

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

If symptoms persist consult your doctor.

#### **Following ingestion:**

Clean mouth with water and drink afterwards plenty of water.

#### **Self-protection of the first aider:**

None

### 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:

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

The product itself does not burn.

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

None

### 5.3 Advice for fire-fighters

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.

---



# Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

Trade name: Reference solution pH 4.005  
Product No: R03.101  
Version: 1.1

Page 3 of 6

Revision date: 2017-08-18

## SECTION 6: Accidental release measures

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

Use personal protective equipment.

### 6.2 Environmental precautions:

Don't flush in to surface water or sanitary sewer system.

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

Soak up with absorbing material

### 6.4 Reference to other sections

13. Disposal considerations

---

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with eyes and skin.  
Wash thoroughly after handling.

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

Keep container in a dry and cool place

### 7.3 Specific end uses:

Reagent for analysis

---

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

None known

### 8.2 Exposure controls

No dangerous reaction known under conditions of normal use.

#### 8.2.2 Personal protective equipment:

**Eye / Face protection:** Suitable eye protection

**Skin protection:** Use suitable gloves. Remove and wash contaminated clothing before re-use.

**Respiratory protection:** Provide adequate ventilation.

---



# Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

Trade name: Reference solution pH 4.005  
Product No: R03.101  
Version: 1.1

Page 4 of 6

Revision date: 2017-08-18

## SECTION 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Physical state:** Liquid

**Colour:** Colourless

**Odour:** Odourless

	Value
<b>pH</b>	4.005
<b>Melting point/freezing point</b>	no data available
<b>Initial boiling point/boiling range</b>	approx.100 °C
<b>Flash point</b>	not applicable
<b>Evaporation rate</b>	no data available
<b>Flammability (solid, gas)</b>	not applicable
<b>Upper/lower flammability or explosive limits</b>	not applicable
<b>Vapour pressure</b>	no data available
<b>Vapour density</b>	not applicable
<b>Density (at 20 °C)</b>	1 g/cm <sup>3</sup>
<b>Water solubility</b>	Soluble
<b>Partition coefficient: n-octanol/water</b>	no data available
<b>Auto-ignition temperature</b>	not applicable
<b>Decomposition temperature</b>	not applicable
<b>Viscosity</b>	no data available
<b>Explosive properties</b>	not applicable
<b>Oxidising properties</b>	not applicable

### 9.2 Other information:

Not applicable

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None known.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

### 10.4 Conditions to avoid:

Extremes of temperature and direct sunlight.

### 10.5 Incompatible materials:

None known.



# Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

Trade name: Reference solution pH 4.005  
Product No: R03.101  
Version: 1.1

Page 5 of 6

Revision date: 2017-08-18

- 10.6 Hazardous decomposition products:**  
No decomposition if stored and applied as directed.

---

## SECTION 11: Toxicological information

No data is available on the product itself.

### 11.1 Information on toxicological effects

#### Acute toxicity

No data is available on the product itself.

Potassium hydrogen phthalate	Effect dose / concentration	Value	Species	Source
Oral	LD50	3200 mg/kg	Rat	RTECS
Dermal		>1000 mg/kg	Guinea pig	

#### Irritation and corrosivity

May cause eye and skin irritation.

#### Sensitising effects

No known effect.

#### Aspiration hazard

No aspiration toxicity classification.

#### Further information

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

---

## SECTION 12: Ecological information

### 12.1 Toxicity:

#### Aquatic toxicity

No data is available on the product itself.

### 12.2 Persistence and degradability

No data is available on the product itself.

### 12.3 Bio accumulative 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.



# Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

Trade name: Reference solution pH 4.005  
Product No: R03.101  
Version: 1.1

Page 6 of 6

Revision date: 2017-08-18

---

## 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, used products and contaminated packing: 160506

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

---

## SECTION 14: Transport information

Not subject to transport regulations.

### 14.5 Environmental hazards

None

### 14.6 Special precautions for user

No data available

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

---

## SECTION 15: Regulatory information

### 15.1 National regulations

Water contaminating class (D): not water contaminating.

### 15.2 Chemical safety assessment

Assessment for the substances in this mixture were not carried out.

---

## SECTION 16: Other information

### Relevant H- EUH-phrases (Number and full text)

H319 Causes serious eye irritation.

### Further information:

The information is based on present level of our knowledge.