



# Safety Data Sheet

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

Trade name: Reference solution pH 10.012  
Product No: R03.105  
Version: 1.1

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Revision date: 2020-01-28

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

**1.1 Product identifier:** Reference solution pH 10.012

**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  
Kogle Allé 5  
2970 Hørsholm  
Denmark  
Telephone: +45 77 30 58 00  
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 sodium carbonate and sodium hydrogen carbonate.

**Hazardous ingredients**

| Substance name            | CAS No.   | Classification    |
|---------------------------|-----------|-------------------|
| Water                     | 7732-18-5 | Eye irrit. 2 H319 |
| Sodium carbonate          | 497-19-8  |                   |
| Sodium hydrogen carbonate | 144-55-8  |                   |



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## 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.

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## 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.



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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:

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

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## 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

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## 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.

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## 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>   | 10.012              |
| <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:<br/>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

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## 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.



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## 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.

| Sodium carbonate | Effect dose / concentration | Value      | Species | Source |
|------------------|-----------------------------|------------|---------|--------|
| Oral             | LD50                        | 4090 mg/kg | Rat     | IUCLID |

| Sodium hydrogen carbonate | Effect dose /concentration | Value      | Species | Source |
|---------------------------|----------------------------|------------|---------|--------|
| Oral                      | LD50                       | 4220 mg/kg | Rat     |        |

#### 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.

| Sodium carbonate         | Effect dose | Value           | Species             | Source |
|--------------------------|-------------|-----------------|---------------------|--------|
| Acute fish toxicity      | LC50        | 300 mg/l (96 h) | Lepomis macrochirus | IUCLID |
| Acute crustacea toxicity | EC50        | 265 mg/l (48 h) | Daphnia magna       |        |

| Sodium hydrogen carbonate | Effect dose | Value            | Species             | Source |
|---------------------------|-------------|------------------|---------------------|--------|
| Acute fish toxicity       | LC50        | 7550 mg/l (96 h) | Lepomis macrochirus |        |
| Acute crustacea toxicity  | EC50        | 2350 mg/l (48 h) | Daphnia magna       |        |

### 12.2 Persistence and degradability

No data is available on the product itself.



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**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.

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## 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.

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## 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

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## 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.



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## 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.