

**Trade name:** Electroporation hypoosmolar / isoosmolar buffer

**Product no.:** 057B

**Current version :** 3.0.0, issued: 11.06.2015

**Replaced version:** 2.0.0, issued: 19.07.2013

**Region:** GB

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

### 1.1 Product identifier

**Trade name**

**Electroporation hypoosmolar / isoosmolar buffer**

**Order No.: 4308 070.501 (hypo.)**

**Order No.: 4308 070.510 (iso.)**

**MSDS No.: 4308 900.334-01/0702**

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Relevant identified uses of the substance or mixture**

Buffer solution

**Uses advised against**

No data available.

### 1.3 Details of the supplier of the safety data sheet

**Address**

Eppendorf AG  
Barkhausenweg 1  
D-22339 Hamburg

Telephone no. +49 40 53801-0

**Information provided by / telephone**

Eppendorf Application-Hotline  
Tel.: +49 1803 66 67 89  
Fax: +49 4053 99 01 25  
email: support@eppendorf.com

**Advice on Safety Data Sheet**

sdb\_info@umco.de

### 1.4 Emergency telephone number

For medical advice (in German and English):  
+49 (0)551 192 40 (Giftinformationszentrum Nord)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification information**

This product does not meet the classification and labelling criteria given in the Regulation (EC) No 1272/2008 (CLP).

### 2.2 Label elements

Not relevant

### 2.3 Other hazards

No data available.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not applicable. The product is not a substance.

### 3.2 Mixtures

**Chemical characterization**

The hypo-osmolar and isoosmolar buffer is a low conductive potassium chloride and potassium phosphate based buffer ( $3.4 \pm 0.2$  mS).

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## **Hazardous ingredients**

This product does not contain substances to be mentioned according to EU Regulation No 1907/2006 (REACH), annex II.

### **3.3 Other information**

These buffers are sterile, pyrogen-free, mycoplasma-free and non toxic to cell cultures. Electroporation buffers differ only in osmolarity

## **SECTION 4: First aid measures**

### **4.1 Description of first aid measures**

#### **General information**

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

#### **After inhalation**

Remove affected person from the immediate area. Ensure supply of fresh air.

#### **After skin contact**

Wash off immediately with soap and water.

#### **After eye contact**

Separate eyelids, wash the eyes thoroughly with water (15 min.).

#### **After ingestion**

Seek medical advice immediately. Never give anything by mouth to an unconscious person. If individual is drowsy or unconscious, place in recovery position (on left side, with head down).

### **4.2 Most important symptoms and effects, both acute and delayed**

No data available.

### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available.

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Product itself is non-combustible; adapt fire extinguishing measures to surrounding areas.

#### **Unsuitable extinguishing media**

No data available.

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

None known.

### **5.3 Advice for firefighters**

Use self-contained breathing apparatus. Wear protective clothing.

## **SECTION 6: Accidental release measures**

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

#### **For non-emergency personnel**

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation.

#### **For emergency responders**

No data available. Personal protective equipment (PPE) - see Section 8.

### **6.2 Environmental precautions**

Do not discharge into the drains/surface waters/groundwater.

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

Pick up with absorbent material (e.g., sand, sawdust, general-purpose binder). Send in suitable containers for recovery or disposal.

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## 6.4 Reference to other sections

No data available.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advice on safe handling

Ensure adequate ventilation.

#### General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work.

#### Advice on protection against fire and explosion

No special measures necessary.

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

#### Technical measures and storage conditions

Keep container tightly closed in a cool, well-ventilated place.

#### Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original one.

#### Advice on storage assembly

Store the foodstuffs separately.

### 7.3 Specific end use(s)

No data available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

No parameters available for monitoring.

### 8.2 Exposure controls

#### Appropriate engineering controls

No data available.

#### Personal protective equipment

##### Respiratory protection

No special measures required.

##### Eye / face protection

Safety glasses (EN 166)

##### Hand protection

Protective gloves (EN 374)

##### Other

Normal chemical work clothing.

#### Environmental exposure controls

No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form/Colour
Liquid
colourless, clear

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<b>Odour</b>			
No data available			
<b>Odour threshold</b>			
No data available			
<b>pH value</b>			
Value	7.1	-	7.3
<b>Boiling point / boiling range</b>			
Value	appr.	100	°C
Reference pressure		1013	mbar
<b>Melting point / melting range</b>			
No data available			
<b>Decomposition point / decomposition range</b>			
No data available			
<b>Flash point</b>			
No data available			
<b>Auto-ignition temperature</b>			
No data available			
<b>Oxidising properties</b>			
No data available			
<b>Explosive properties</b>			
No data available			
<b>Flammability (solid, gas)</b>			
No data available			
<b>Lower flammability or explosive limits</b>			
No data available			
<b>Upper flammability or explosive limits</b>			
No data available			
<b>Vapour pressure</b>			
No data available			
<b>Vapour density</b>			
No data available			
<b>Evaporation rate</b>			
No data available			
<b>Relative density</b>			
No data available			
<b>Density</b>			
No data available			
<b>Solubility in water</b>			
Remarks	soluble		

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## Solubility(ies)

No data available

## Partition coefficient: n-octanol/water

No data available

## Viscosity

No data available

## 9.2 Other information

### Other information

No data available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available.

### 10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

### 10.3 Possibility of hazardous reactions

Dangerous reactions are not to be expected when handling product according to its intended use.

### 10.4 Conditions to avoid

None known

### 10.5 Incompatible materials

No hazardous reactions known.

### 10.6 Hazardous decomposition products

No data available.

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No data available

**Acute dermal toxicity**

No data available

**Acute inhalational toxicity**

No data available

**Skin corrosion/irritation**

No data available

**Serious eye damage/irritation**

No data available

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available

**Reproduction toxicity**

No data available

**Carcinogenicity**

No data available

**STOT-single exposure**

No data available

**STOT-repeated exposure**

No data available

**Aspiration hazard**

No data available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

Product specific toxicological data are not available.

**Other information**

When handled appropriately, even after long years of experience with this product, no adverse health effects are known.

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Toxicity to fish (acute)

No data available

#### Toxicity to fish (chronic)

No data available

#### Toxicity to Daphnia (acute)

No data available

#### Toxicity to Daphnia (chronic)

No data available

#### Toxicity to algae (acute)

No data available

#### Toxicity to algae (chronic)

No data available

#### Bacteria toxicity

No data available

### 12.2 Persistence and degradability

No data available.

### 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

No data available.

### 12.7 Other information

#### Other information

Do not discharge into the drains or waters and do not store on public depositories.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

#### Packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Packaging that cannot be cleaned should be disposed of in agreement with the regional waste disposal company.

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## SECTION 14: Transport information

### 14.1 Transport ADR/RID/ADN

The product is not subject to ADR/RID/ADN regulations.

### 14.2 Transport IMDG

The product is not subject to IMDG regulations.

### 14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

### 14.4 Other information

No data available.

### 14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

### 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 relevant

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

#### **Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

#### **REACH candidate list of substances of very high concern (SVHC) for authorisation**

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

#### **Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

#### **Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances**

This product is not subject to Part 1 or 2 of Annex I.

#### **Other regulations**

Adhere to the national sanitary and occupational safety regulations when using this product.

### 15.2 Chemical safety assessment

No data available.

## SECTION 16: Other information

#### **Sources of key data used to compile the data sheet:**

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.



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**Department issuing safety data sheet**

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This information is based on our present state of knowledge and experience.

The security data sheet describes products with a view to the security requirements.

However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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