# **SAFETY DATA SHEET**

SIEMENS : Healthineers : •

pO2 Electrode

SDS no.: 476246

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

1.1 Product identifier

Product name : pO2 Electrode

**Product code** : 476246, 02742339, 10311023, 10324408

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

Identified uses pO2 Electrolyte Solution Diagnostic agents.

**Restrictions on use** For professional users only.

**Supplier**: Siemens Healthcare Diagnostics Limited

Park View, Watchmoor Park, Camberley, Surrey, GU15 3YL United Kingdom

Phone: +44 (0) 345 600 1955

e-mail address of person responsible for this SDS

: dx.msds.healthcare@siemens-healthineers.com

1.4 Emergency telephone number

CHEMTREC: +44 20 3807 3798

### **SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture

Product definition : pO2 Electrolyte Solution Mixture

Classification according to UK CLP/GHS

Not classified.

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word : pO2 Electrolyte Solution No signal word.

hazards.

**Precautionary statements** 

Prevention: pO2 Electrolyte SolutionNot applicable.Response: pO2 Electrolyte SolutionNot applicable.Storage: pO2 Electrolyte SolutionNot applicable.Disposal: pO2 Electrolyte SolutionNot applicable.Supplemental label: pO2 Electrolyte SolutionNot applicable.

elements

# **SECTION 2: Hazards identification**

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : pO2 Electrolyte Solution

Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006. Annex XIII : pO2 Electrolyte Solution

This mixture does not contain any substances that are assessed to be a

PBT or a vPvB.

Other hazards which do not result in classification

: pO2 Electrolyte Solution

None known.

**Additional information**: Not available.

Not available.

# **SECTION 3: Composition/information on ingredients**

3.1 Substances : pO2 Electrolyte Solution Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

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

4.1 Description of first aid measures

**Eye contact**: pO2 Electrolyte Solution Immediately flush eyes with plenty of

water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical

attention if irritation occurs.

**Inhalation** : pO2 Electrolyte Solution Remove victim to fresh air and keep at

rest in a position comfortable for breathing. Get medical attention if

symptoms occur.

**Skin contact**: pO2 Electrolyte Solution: Flush contaminated skin with plenty of

water. Remove contaminated clothing and shoes. Get medical attention if

symptoms occur.

**Ingestion**: pO2 Electrolyte Solution Wash out mouth with water. If material

has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical

attention if symptoms occur.

personal risk or without suitable training.

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

Over-exposure signs/symptoms

Eye contact: pO2 Electrolyte SolutionNo specific data.Inhalation: pO2 Electrolyte SolutionNo specific data.Skin contact: pO2 Electrolyte SolutionNo specific data.Ingestion: pO2 Electrolyte SolutionNo specific data.

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

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

Notes to physician : pO2 Electrolyte Solution Treat symptomatically. Contact poison

> treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : pO2 Electrolyte Solution No specific treatment.

> pO2 Electrolyte Solution Not available.

# SECTION 5: Firefighting measures

## 5.1 Extinguishing media

Suitable extinguishing media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing

media

: None known.

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

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous combustion** 

products

: No specific data.

### 5.3 Advice for firefighters

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without

suitable training.

Special protective equipment for fire-fighters Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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

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

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

### SECTION 6: Accidental release measures

6.4 Reference to other sections

: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

# SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

**Protective measures** 

: Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Not available. Industrial sector specific : Not available.

solutions

# SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### Occupational exposure limits

No exposure limit value known.

procedures

**Recommended monitoring**: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### **DNELs/DMELs**

No DNELs/DMELs available.

### **PNECs**

No PNECs available

### 8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

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

#### **Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should

be worn at all times when handling chemical products if a risk assessment indicates

this is necessary.

**Body protection** : Personal protective equipment for the body should be selected based on the task

being performed and the risks involved and should be approved by a specialist before handling this product.

before handling this product

Other skin protection : Appropriate footwear and any additional skin protection measures should be

selected based on the task being performed and the risks involved and should be

approved by a specialist before handling this product.

**Respiratory protection**: Based on the hazard and potential for exposure, select a respirator that meets the

appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important

aspects of use.

**Environmental exposure** 

controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process

equipment will be necessary to reduce emissions to acceptable levels.

# **SECTION 9: Physical and chemical properties**

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

#### **Appearance**

Physical state : pO2 Electrolyte Solution Liquid. Colour : pO2 Electrolyte Solution Colourless. Odour : pO2 Electrolyte Solution Odourless. Odour threshold : Not relevant/applicable due to nature of the product. Melting point/freezing point : Not relevant/applicable due to nature of the product. : Not relevant/applicable due to nature of the product. Softening point Sublimation temperature : Not relevant/applicable due to nature of the product.

Initial boiling point and

boiling range

: pO2 Electrolyte Solution Not available

Flammability (solid, gas) : pO2 Electrolyte Solution Not relevant/applicable due to nature

of the product.

Upper/lower flammability or

explosive limits

: pO2 Electrolyte Solution

Not available.

Flash point : pO2 Electrolyte Solution [Product does not sustain combustion.]

	Closed cup			Open cup		
Ingredient name	°C	°F	Method	°C	°F	Method
pO2 Electrolyte Solution						
ethanediol	111	231.8				

#### Auto-ignition temperature

Ingredient name	°C	°F	Method
pO2 Electrolyte Solution			
ethanediol	398	748.4	

**Decomposition temperature** 

: Not relevant/applicable due to nature of the product.

**pH** : pO2 Electrolyte Solution 6.78

Viscosity : pO2 Electrolyte Solution Not available.

Solubility(ies) :

Not available.

**Solubility in water** : Not relevant/applicable due to nature of the product.

# SECTION 9: Physical and chemical properties

: Not relevant/applicable due to nature of the product. Miscible with water

Partition coefficient: n-octanol/: Not relevant/applicable due to nature of the product.

water

Vapour pressure

	V	Vapour Pressure at 20°C			Vapour pressure at 50°C		
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method	
pO2 Electrolyte Solution							
ethanediol	0.09	0.012					

**Evaporation rate** : Not relevant/applicable due to nature of the product.

Relative density : pO2 Electrolyte Solution

Not available. Density : pO2 Electrolyte Solution Not available. Vapour density : pO2 Electrolyte Solution Not available. **Explosive properties** : pO2 Electrolyte Solution Not available. **Oxidising properties** : pO2 Electrolyte Solution

**Particle characteristics** 

Median particle size : Not applicable.

9.2 Other information

Fire point : pO2 Electrolyte Solution Not available. **Burning time** : Not relevant/applicable due to nature of the product. **Fundamental burning velocity** : Not relevant/applicable due to nature of the product. **Burning rate** : Not relevant/applicable due to nature of the product. **SADT** : Not relevant/applicable due to nature of the product. **SAPT** Not relevant/applicable due to nature of the product. Heat of reaction : Not relevant/applicable due to nature of the product. Heat of combustion : Not relevant/applicable due to nature of the product. Flow time (ISO 2431) Not relevant/applicable due to nature of the product. Molecular weight : Not relevant/applicable due to nature of the product.

# SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products

should not be produced.

# **SECTION 11: Toxicological information**

# 11.1 Information on toxicological effects

**Acute toxicity** 

Conclusion/Summary: pO2 Electrolyte Solution Not available.

**Acute toxicity estimates** 

N/A

Irritation/Corrosion

Conclusion/Summary

Skin: pO2 Electrolyte SolutionNot available.Eyes: pO2 Electrolyte SolutionNot available.Respiratory: pO2 Electrolyte SolutionNot available.

**Sensitisation** 

Conclusion/Summary

Skin: pO2 Electrolyte SolutionNot available.Respiratory: pO2 Electrolyte SolutionNot available.

**Mutagenicity** 

Conclusion/Summary : pO2 Electrolyte Solution Not available.

**Carcinogenicity** 

Conclusion/Summary : pO2 Electrolyte Solution Not available.

**Reproductive toxicity** 

**Conclusion/Summary**: pO2 Electrolyte Solution Not available.

**Teratogenicity** 

Conclusion/Summary : pO2 Electrolyte Solution Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

**Aspiration hazard** 

Not available.

Information on likely routes : pO2 Electrolyte Solution Not available.

of exposure

Potential acute health effects

**Eye contact**: pO2 Electrolyte Solution No known significant effects or critical

hazards.

Inhalation : pO2 Electrolyte Solution No known significant effects or critical

hazards.

**Skin contact**: pO2 Electrolyte Solution No known significant effects or critical

hazards.

**Ingestion**: pO2 Electrolyte Solution

No known significant effects or critical

hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: pO2 Electrolyte SolutionNo specific data.Inhalation: pO2 Electrolyte SolutionNo specific data.Skin contact: pO2 Electrolyte SolutionNo specific data.Ingestion: pO2 Electrolyte SolutionNo specific data.

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

# SECTION 11: Toxicological information

Short term exposure

Potential immediate : pO2 Electrolyte Solution Not available.

effects

Potential delayed effects : pO2 Electrolyte Solution Not available.

Long term exposure

Potential immediate : pO2 Electrolyte Solution Not available.

effects

Potential delayed effects : pO2 Electrolyte Solution Not available.

Potential chronic health effects

Not available.

**Conclusion/Summary**: pO2 Electrolyte Solution Not available.

General : pO2 Electrolyte Solution No known significant effects or critical

hazards.

Carcinogenicity : pO2 Electrolyte Solution No known significant effects or critical

hazards.

**Mutagenicity** : pO2 Electrolyte Solution No known significant effects or critical

hazards.

Reproductive toxicity: pO2 Electrolyte Solution No known significant effects or critical

hazards.

Interactive effects : pO2 Electrolyte Solution Not available.

**Toxicokinetics** 

Absorption: pO2 Electrolyte SolutionNot available.Distribution: pO2 Electrolyte SolutionNot available.Metabolism: pO2 Electrolyte SolutionNot available.Elimination: pO2 Electrolyte SolutionNot available.

Other information : pO2 Electrolyte Solution Not available.

# **SECTION 12: Ecological information**

12.1 Toxicity

**Conclusion/Summary**: pO2 Electrolyte Solution Not available.

12.2 Persistence and degradability

**Conclusion/Summary**: pO2 Electrolyte Solution Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition : pO2 Electrolyte Solution Not available.

coefficient (Koc)

**Mobility** : pO2 Electrolyte Solution Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

#### **Product**

**Methods of disposal**: The generation of waste should be avoided or minimised wherever possible.

Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities

with jurisdiction.

**Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as

hazardous waste, as defined by EU Directive 2008/98/EC.

**Packaging** 

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste

packaging should be recycled. Incineration or landfill should only be considered

when recycling is not feasible.

**Special precautions**: This material and its container must be disposed of in a safe way. Empty containers

or liners may retain some product residues. Avoid dispersal of spilt material and

runoff and contact with soil, waterways, drains and sewers.

# **SECTION 14: Transport information**

ADR/RID		
14.1 UN number	pO2 Electrolyte Solution	Not regulated.
14.2 UN proper shipping name	pO2 Electrolyte Solution	-
14.3 Transport hazard class(es)	pO2 Electrolyte Solution	-
14.4 Packing group	pO2 Electrolyte Solution	-
14.5 Environmental hazards	pO2 Electrolyte Solution	No.
Additional information	pO2 Electrolyte Solution	-
<u>ADN</u>		
ADN 14.1 UN number	pO2 Electrolyte Solution	Not regulated.
	pO2 Electrolyte Solution pO2 Electrolyte Solution	Not regulated.
14.1 UN number	,	· ·
14.1 UN number 14.2 UN proper shipping name 14.3 Transport	pO2 Electrolyte Solution	· ·
14.1 UN number 14.2 UN proper shipping name 14.3 Transport	pO2 Electrolyte Solution	· ·
14.1 UN number 14.2 UN proper shipping name 14.3 Transport hazard class(es)	pO2 Electrolyte Solution pO2 Electrolyte Solution	· ·

### <u>IMDG</u>

# **SECTION 14: Transport information**

	14.1 UN number	pO2 Electrolyte Solution	Not regulated.
	14.2 UN proper shipping name	pO2 Electrolyte Solution	-
	14.3 Transport hazard class(es)	pO2 Electrolyte Solution	-
	14.4 Packing group	pO2 Electrolyte Solution	-
	14.5 Environmental hazards	pO2 Electrolyte Solution	No.
	Additional information	pO2 Electrolyte Solution	-
<u>I/</u>	<u>ATA</u>		
	14.1 UN number	pO2 Electrolyte Solution	Not regulated.
	14.2 UN proper shipping name	pO2 Electrolyte Solution	-
	14.3 Transport hazard class(es)	pO2 Electrolyte Solution	-
	14.4 Packing group	pO2 Electrolyte Solution	-
	14.5 Environmental hazards	pO2 Electrolyte Solution	No.
	Additional information	pO2 Electrolyte Solution	-

**14.6 Special precautions for** : pO2 Electrolyte Solution

user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments

Not applicable.

# **SECTION 15: Regulatory information**

# 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture UK (GB) /REACH

### Annex XIV - List of substances subject to authorisation

### **Annex XIV**

None of the components are listed.

### Substances of very high concern

None of the components are listed.

# **SECTION 15: Regulatory information**

### Ozone depleting substances

Not listed.

### **Prior Informed Consent (PIC)**

Not listed.

#### **Persistent Organic Pollutants**

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market

and use of certain dangerous substances, mixtures and articles

Seveso Directive

This product is not controlled under the Seveso Directive.

EU regulations

Industrial emissions

: pO2 Electrolyte Solution

: pO2 Electrolyte Solution

Not listed

Not applicable.

(integrated pollution prevention and control) -

Air

Industrial emissions

: pO2 Electrolyte Solution

Not listed

(integrated pollution prevention and control) -

Water

#### **International regulations**

### **Montreal Protocol**

Not listed.

### Stockholm Convention on Persistent Organic Pollutants

Not listed.

### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

### **UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

assessment

15.2 Chemical safety

: Chemical Safety Assessments for all substances in this product are either Complete

or Not applicable.

# **SECTION 16: Other information**

Indicates information that has changed from previously issued version.

Abbreviations and

acronyms

: ATE = Acute Toxicity Estimate

GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and

Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019

No. 720 and amendments

DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level

EUH statement = GB CLP-specific Hazard statement

N/A = Not available

PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

SGG = Segregation Group

vPvB = Very Persistent and Very Bioaccumulative

# **SECTION 16: Other information**

#### Procedure used to derive the classification

Not classified.

### Full text of abbreviated H statements

Not applicable.

### Full text of classifications

Not applicable.

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revision

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#### **Notice to reader**

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.