

## Material Safety data sheet (MSDS)

This data sheet is provided to help you work safely, please read before use of this material.

Date of issue: 20-03-2015

### **SECTION 1 - IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY**

**Product name:**

- Dissolved Oxygen electrode zero oxygen standard ZO-150 and ZO-600

**Application:**

- Dissolved oxygen zero oxygen standard for the calibration of the zero oxygen point on the dissolved oxygen electrode on the AQUAPROBE.

**Company identification:**

Aquaread Ltd  
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### **SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS**

Clear colourless aqueous solution containing 0.67M sodium sulphite ( $\text{Na}_2\text{SO}_3$  126.04g/mol) in deionised water.

Sodium sulphite;  
CAS-No 7757-83-7  
EC-No 231-821-4  
Classification R31  
Concentration 0.67M

Deionised Water;  
CAS-No 7732-18-5  
EC-No 231-791-2

### **SECTION 3 - HAZARD IDENTIFICATION**

R-31; Contact with acids liberates toxic gas. Good laboratory practices should always be used.

### **SECTION 4 - FIRST AID MEASURES**

- **After inhalation** : if inhaled remove to fresh air. If not breathing give artificial respiration. Seek medical assistance if symptoms persist.
- **After skin contact** : wash exposed area with water and soap. If symptoms persist seek medical attention.
- **After eye contact** : as a precaution rinse out with plenty of water for at least 15 minutes, lifting lids occasionally.
- **After swallowing** : wash out mouth with plenty of water, provided person is conscious. Not necessary to induce vomiting, drink plenty of water. Seek medical advice if symptoms persist.

### **SECTION 5 – FIRE-FIGHTING MEASURES**

- **Suitable extinguishing media**
  - Water spray, foam, dry powder or carbon dioxide (as appropriate to local environment and surroundings).
- **Fire/Explosion Hazards:**
  - None known
- **Additional information:**
  - Only fight fire if you are trained and confident to do so, wear suitable fire protection equipment.

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## **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

- **Personal precautions:**
  - Avoid dust formation
- **Environmental precautions:**
  - Do not let product enter drains.

## **SECTION 7 - HANDLING AND STORAGE**

- **Handling:**
  - Use good laboratory practice, abide with local health and safety procedures. Provide appropriate exhaust ventilation where dust is formed.
- **Storage:**
  - Store in a well ventilated, cool dry place away from direct sunlight. Do not store near acids. Keep container tightly closed when not in use.

## **SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION**

- **Personal protective equipment:**
  - As appropriate to quantity handled. Change contaminated clothing.
- **Protective gloves:**
  - Wear appropriate gloves (plastic, nylon, latex) as according to EU directive 89/689/EEC and the standard EN374 derived from it. Wash hands after working with substance.
- **Respiratory protection:**
  - Not required. If excess dust is formed wear N95 (US) or type P1 (EN 143) dust masks. Respirators and components should be tested and approved under appropriate government standards.
- **Eye protection:**
  - Safety glasses with side shields, goggles or face mask.

## **SECTION 9 - PHYSICAL/CHEMICAL PROPERTIES**

- **Appearance** : Colourless liquid
- **Odour** : No data available
- **Solubility** : Soluble
- **Melting point** : No data available
- **Boiling point** : lowest known value is 100°C (water)
- **pH value at 20°C** : No data available
- **Flash point** : No data available
- **Explosive properties** : No data available
- **Explosion limits** : No data available
- **Ignition temperature** : No data available

## **SECTION 10 - STABILITY AND REACTIVITY**

- **Conditions to be avoided:**
  - Strong heating (above boiling point)
  - Exposure to air may effect product quality, keep lid tightly sealed when not in use.
  - Stable in the recommended storage conditions.
- **Hazardous decomposition products:**
  - Contact with acids releases sulphur dioxide. See section 5 in the event of fire.
- **Substances to be avoided:**
  - Strong oxidising agents, acids.
- **Hazardous decomposition products (formed under fire condition)**
  - Sulphur oxides.

## **SECTION 11 - TOXICOLOGICAL INFORMATION**

### *Acute toxicity*

LD50 Oral-rat; >3500mg/kg

LC50 Inhalation-rat; 5500mg/m<sup>3</sup> (4h)

### *Irritation and corrosion*

Eyes-Rabbit; mild eye irritation

Skin-Rabbit; no skin irritation

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#### *Signs and symptoms of exposure*

Diarrhoea, violent cholice, irritation of the gastrointestinal tract. May cause disturbances of the circulatory system, central nervous system depression, death, hypersensitivity to sulphites in persons with allergies and/or asthma. As far as we know the toxicological, physical and chemical properties of this product have not been fully investigated.

#### *Further data*

The product should be handled with the care usual when dealing with chemicals. May be harmful if swallowed, inhaled, absorbed through the skin or may cause eye irritation.

Target organs-central nervous system.

Sensitisation/Chronic exposure; May cause allergic reactions in sensitive individuals with prolonged/repeated exposure. This product contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

### **SECTION 12 - ECOLOGICAL INFORMATION**

#### *Ecotoxic effects:*

Elimination data not available.

Toxicity to fish; - *Gambusia affinis* (mosquito fish) LC50; >650mg/l (96h)

#### *Further ecological data:*

No data available.

### **SECTION 13 - DISPOSAL CONSIDERATIONS**

#### • **Waste disposal:**

Observe all federal, state and local environmental regulations. Contact a professional licensed waste disposal service to dispose of this product.

### **SECTION 14 - TRANSPORT INFORMATION**

Not dangerous goods.

### **SECTION 15 - REGULATORY INFORMATION**

#### **Labelling according to EC Directives:**

R-phrase; R31 Contact with acids liberates toxic gas.

### **SECTION 16 - OTHER INFORMATION**

- **Supersedes edition of** : - 10406-00300 Rev B
- **Reason for revision** : - Updated with new address information

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT AT THE DATE OF ISSUE. IT CHARACTERISES THE PRODUCT WITH REGARD TO THE APPROPRIATE SAFETY PRECAUTIONS. IT DOES NOT REPRESENT A GUARANTEE OF THE PROPERTIES OF THE PRODUCT. AQUAREAD LTD SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING IN HANDLING OR EXPOSURE TO THE ABOVE PRODUCT. AQUAREAD LTD DOES NOT CARRY OUT ANY ANIMAL TESTING.