

**Trade name:** Oxygen Sensor**Current version :** 2.0.1, issued: 15.12.2014**Replaced version:** 2.0.0, issued: 30.10.2014**Region:** GB**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name****Oxygen Sensor****Type: OOA; OOD; OOI; OOM****1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified uses of the substance or mixture**

oxygen measurement

**1.3 Details of the supplier of the safety data sheet****Address**EnviteC-Wismar  
Alter Holzhafen 18  
23966 Wismar  
DeutschlandTelephone no. +49 3841 360-1  
Fax no. +49 3841 360-222  
Email info@envitec.com**Advice on Safety Data Sheet**

info@envitec.com

**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 is in the sense of article 3 of the Regulation (EC) 1907/2006 (REACH) an article and not subject to the labelling obligations according to:

- Art. 1, Regulation (EC) 1272/2008 (CLP).

To provide a safety data sheet is not mandatory for articles and is done on a voluntary basis.

**2.2 Label elements**

Not relevant

**2.3 Other hazards**

Contains sensor encapsulated by a housing, lead (Pb), lead oxide (PbO) and concentrated potassium hydroxide solution (between 2 and 5 mol / L). Lead and lead oxide are toxic and dangerous for the environment. Concentrated potassium hydroxide is corrosive (see section 3.2).

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**SECTION 3: Composition/information on ingredients****3.1 Substances**

Not applicable. The product is not a substance.

**3.2 Mixtures****Hazardous ingredients**

No	Substance name	Classification	Classification (EC)	Additional information	
	CAS / EC / Index / REACH no	67/548/EEC	1272/2008 (CLP)	Concentration	%
1	lead				
	7439-92-1 231-100-4 - -	Repr.Cat.1; R60 Repr.Cat.1; R61 Xn; R48/20/22 N; R50/53	Repr. 1A; H360FD STOT RE 1; H372 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	> 30.00 - < 50.00	%-b.w.
2	potassium hydroxide				
	1310-58-3 215-181-3 019-002-00-8 -	Xn; R22 C; R35	Acute Tox. 4*; H302 Skin Corr. 1A; H314	> 0.50 - < 2.00	%-b.w.

Full Text for all R-phrases, H-phrases and EUH-phrases: pls. see section 16

(\*, \*\*, \*\*\*, \*\*\*\*) Detailed explanation pls. refer to CLP regulation No. 1272/2008, annex VI, 1.2

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
2	-	Skin Irrit. 2; H315: C >= 0.5% Eye Irrit. 2; H319: C >= 0.5% Skin Corr. 1B; H314: C >= 2% Skin Corr. 1A; H314: C >= 5%	-	-

**3.3 Other information**

Listed in Section 3.2 the % by weight are based on the total mass of the sensor.

Quantity / Sensor:

Lead (CAS No. 7439-92-1.) 10-25 g

KOH (CAS No. 1310-58-3.) 1-2 mL (2 mol / L - 5 mol / l of KOH)

**SECTION 4: First aid measures****4.1 Description of first aid measures****General information**

In all cases of doubt, or when symptoms persist, seek medical attention.

**After inhalation**

Remove to fresh air, keep patient warm and at rest.

**After skin contact**

Rinse with plenty of water. Get medical attention if pain still persists.

**After eye contact**

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

**After ingestion**

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

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

The following applies to lead compounds in general: Due to the poor absorbability via the gastrointestinal tract, only very high doses lead to acute cases of intoxication. After a latency period of several hours, metallic taste, nausea, vomiting and colics occur, in many instances followed by shock. Chronic uptake causes peripheral muscular weakness ("drop-wrist"), anaemia and central-nervous disorders. Women of child-bearing age should not be exposed to the substance over long period of time.

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No data available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Extinguishing measures to suit surroundings.

**Unsuitable extinguishing media**

No data available.

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

In case of fires, hazardous combustion gases are formed: Lead fumes; Lead oxide

**5.3 Advice for firefighters**

Appropriate breathing apparatus may be required. Wear protective clothing. DO NOT ALLOW RUN-OFF FROM FIRE FIGHTING TO ENTER DRAINS OR WATER COURSES

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

**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**

Collect mechanically (preferably in dry condition). Send in suitable containers for recovery or disposal. When picked up, treat material as prescribed under heading "Disposal considerations".

**6.4 Reference to other sections**

No data available.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling****Advice on safe handling**

Not mechanically damage the case. Do not use damaged products. Do not misuse. See Technical Data Sheet. Do not use liquid disinfectant solution. Remove dirt with a damp disposable cloth.

**General protective and hygiene measures**

Keep separated from food-stuffs and feed-stocks. Do not eat or drink during work - no smoking. Wash hands before breaks and after work. Avoid contact with eyes and skin. Do not inhale dust/fumes/aerosols.

**7.2 Conditions for safe storage, including any incompatibilities****Technical measures and storage conditions**

Store in a dry place. Store at aired place. Keep under lock and key or accessible only to specialists or people who are authorized.

**Recommended storage temperature**

Value -20 - 50 °C

**Requirements for storage rooms and vessels**

Keep the product in the original packing.

**7.3 Specific end use(s)**

No data available.

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## 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 data available.

##### Eye / face protection

No data available.

##### Hand protection

No data available.

##### Other

Protective clothing must be selected according to the type of work and the respective conditions of risk.

#### Environmental exposure controls

No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form/Colour</b>	
moulded element	
<b>Odour</b>	
No data available	
<b>Odour threshold</b>	
No data available	
<b>pH value</b>	
Value	>= 14
Reference substance	potassium-hydroxide
<b>Boiling point / boiling range</b>	
No data available	
<b>Melting point / melting range</b>	
No data available	
<b>Decomposition point / decomposition range</b>	
No data available	
<b>Flash point</b>	
Not applicable	

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**Auto-ignition temperature**

No data available

**Oxidising properties**

No data available

**Explosive properties**

No data available

**Flammability (solid, gas)**

No data available

**Lower flammability or explosive limits**

No data available

**Upper flammability or explosive limits**

No data available

**Vapour pressure**

No data available

**Vapour density**

No data available

**Evaporation rate**

No data available

**Relative density**

No data available

**Density**

No data available

**Solubility in water**

No data available

**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**

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

**10.2 Chemical stability**

stable if stored and handled properly.

**10.3 Possibility of hazardous reactions**

No data available.

**10.4 Conditions to avoid**

None, if handled according to order.

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No data available.

**10.6 Hazardous decomposition products**

No hazardous decomposition products if stored and handled as prescribed.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute oral toxicity**

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

**Other information**

No health-damaging effects to be expected if used properly.

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**SECTION 12: Ecological information****12.1 Toxicity**

<b>Toxicity to fish (acute)</b>
No data available
<b>Toxicity to fish (chronic)</b>
No data available
<b>Toxicity to Daphnia (acute)</b>
No data available
<b>Toxicity to Daphnia (chronic)</b>
No data available
<b>Toxicity to algae (acute)</b>
No data available
<b>Toxicity to algae (chronic)</b>
No data available
<b>Bacteria toxicity</b>
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**

<b>Other information</b>
Ecological data are not available.

**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.  
dispose of in accordance with local regulation.

**Packaging**

Dispose of in accordance with federal, state and local regulations.

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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 article 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.

**Restriction of occupation**

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

**Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances**

Remarks

Annex I, part 1 + 2: not mentioned. With regard to possibly appropriate decomposition products see Chapter 10.

**15.2 Chemical safety assessment**

For this substance a chemical safety assessment has been carried out.

**SECTION 16: Other information****Sources of key data used to compile the data sheet:**

EC Directive 67/548/EC resp. 1999/45/EC as amended in each case.

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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**Full text of the R-, H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)**

R22	Harmful if swallowed.
R35	Causes severe burns.
R48/20/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R60	May impair fertility.
R61	May cause harm to the unborn child.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H360FD	May damage fertility. May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

**Department issuing safety data sheet**

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These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.