





Material Safety Data Sheet

eOx International b.v.

1	Product Name: Product Code: Purpose Registration Number : Manufacturer Identification	<u>EOXIDE LQ 75 - 0.75% ClO2</u> Chemical Component ClO2 N- 40741 <u>Manufactured by:</u> eOx International bv 1e Lulofsdwarsstraat 117, 2521 AZ, The Hague, The Netherlands Tel: +31 703 807 376 Fax :+31 703 841 476 E-mail: info@eox-international.com				
2	Hazards Information / Risks		Harmful effects on health		Irritating to eyes and skin	Direct contact with Chlorine Dioxid causes eye and skin irritation. Inhalation of Chlorine Dioxid may cause respiratory tract irritation, coughing, wheezing and burns of the mucous membranes. Inhalation of large amounts may lead to pulmonary edema and bronchitis.
3	Composition/Information on Elements Hazardous components: chlorine dioxide, solution	% Weight 0.3 - <3	CAS-nr 10049-04-4	EC-nr 233-162-8	R-wording 25-34-50 (1)(2)	Symbol T; N
<small>Full text of each relevant R phrase can be found in heading 16</small>						
4	First Aid Measures	General indications	▶ In event of serious problems call a doctor summon medical assistance urgently			
		After Inhalation	▶ Remove the victim into fresh air ▶ Respiratory problems: consult a doctor/medical service			
		After Skin Contact	▶ Rinse with water ▶ Soap may be used ▶ Take victim to a doctor if irritation persists			
		After Eye Contact	▶ Rinse immediately with plenty of water ▶ Take victim to an ophthalmologist			
		After Ingestion	▶ Rinse mouth with water			
		Emergency medical treatment	▶ Immediately give lots of water to drink			
5	Fire Fighting Measures	Suitable Extinguishing Media	▶ Non combustible product ▶ All extinguishing media can be used. Use extinguishing media appropriate for surrounding fire ▶ Use water stream to cool containers			
		Special exposure hazards	▶ On burning formulation of small quantities of hydrogen chloride			
		Protection against fire	▶ Evacuate unnecessary personnel ▶ Wear proper protective equipment ▶ Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves			
		Special procedures	▶ Exercise caution when fighting any chemical fire			

IN ACCORDANCE WITH THE REACH-ENACTMENT (EG) nr. 1907/2006, art.31 appendix II.

Printing date : 2012-02-17
Compiled by : eOx International bv
Date of issue : 2011-05-06
Reference number : N-40741
Reason for revision : General revision

Product : EOXIDE LQ75 – 0.75% ClO2
Revision : 1
Revision number : 000
Page : 1

6 Accidental Spill or Release Measures

- Personal Precautions** † See heading 8.2/13
- Environmental Precautions** † Prevent entry to public water, sewers or soil.
- † Notify authorities if product enters sewer or public waters.
- After spillage/leakage** † Contain released substance, pump into suitable containers
- † Plug the leak, cut off the supply
- † Take up liquid spill into inert absorbent material
- † Flush with plenty of water
- Recovery on soil** † Stop the spillage, if possible without risk for the workforce
- † Dike for recovery or absorb with appropriate material
- † Sweep or shovel spills into appropriate container for disposal

7 Handling and storage

- Technical measures** † Handle in accordance with good industrial hygiene and safety procedures
- Prevention of worker exposure** † Ensure prompt removal from eyes, skin and clothing.
- † Wash hands and other exposed areas with mild soap and water before eating, drinking, smoking and when leaving work
- Storage recommended** † Provide local exhaust or general room ventilation to minimize dust and/or vapor concentrations.
- † Keep containers closed when not in use
- † Keep only in the original container in a cool, well ventilated place
- † Acids, bases, oxidizing agents, heat sources
- Incompatible materials** † Polyethylene, plastics, (Small quantities: Glass)
- Packaging materials recommended** † Steel, Copper, Copper and its alloys, Aluminum and its alloys, Rubber
- Packaging materials NOT recommended**

8 Exposure Controls / Personal Protection

Respiratory protection



- † Wear gas mask with filter type B if conc. in air > exposure limit
- CHLORINE DIOXIDE, solution**
- TLV-TWA : mg/m³ 0.1 ppm**
- TLV-STEL : mg/m³ 0.3 ppm**
- TLV-Ceiling : mg/m³ ppm**

WEL-LTEL : 0.28 mg/m³ 0.1 ppm
WEL-STEL : 0.84 mg/m³ 0.3 ppm
TRGS 900 : 0.28 mg/m³ 0.1 ppm

MAK : 0.28 mg/m³ 0.1 ppm
MAC-TGG 8 h : mg/m³
MAC-TGG 15 min. : 0.3 mg/m³
MAC-Ceiling : mg/m³

VME-8 h : 0.3 mg/m³ 0.1 ppm
VLE-15 min. : 0.8 mg/m³ 0.3 ppm

GWBB-8 h : 0.28 mg/m³ 0.1 ppm
GWK-15 min. : 0.84 mg/m³ 0.3 ppm
Momentary value : mg/m³ ppm
EC : mg/m³ ppm
EC-STEL : mg/m³ ppm

Occupational exposure controls:

- Measure the concentration in the air regularly
- Work under local exhaust/ventilation

Personal protective equipment:

IN ACCORDANCE WITH THE REACH-ENACTMENT (EG) nr. 1907/2006, art.31 appendix II.

a) Respiratory protection:

- Wear gas mask with filter type B if conc. in air > exposure limit

b) Hand protection:

- Gloves

Suitable materials:

GIVE GOOD RESISTANCE:

Butyl rubber

Neoprene

PVC

- Breakthrough time: N.D.

c) Eye protection:

- Safety glasses

d) Skin protection:

- Protective clothing

Suitable materials:

GIVE GOOD RESISTANCE:

Butyl rubber

Neoprene

PVC

8.2.2 Environmental exposure controls: see headings 6.2, 6.3 and 13

- › Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Avoid all unnecessary exposure. Ensure prompt removal from eyes, skin and clothing

Industrial Hygiene

9 Physical/Chemical Properties

9.1 General information:

Appearance (at 20°) : Liquid
 Odour : Irritating / pungent
 Colour : Yellow

9.2 Important health, safety and environmental information:

pH value (at100 %) 1.87 (100%, concentrate, 20°C).
 Boiling point/boiling range N.D.
 Flash point/flammability 100 ° C
 Explosion limits (explosive properties) N.A.
 Oxidising properties N.A.
 Vapour pressure (at 20°C) N.D.
 Vapour pressure (at 50°C) N.D.
 Relative density (at 20°C) +/- 1,04
 Water solubility 1
 Soluble in No data available
 Relative vapour density N.D.
 Viscosity N.D.
 Partition coefficient n-octanol/water N.D.
 Evaporation rate N.D.
 ratio to butyl acetate N.D.
 ratio to ether N.D.

IN ACCORDANCE WITH THE REACH-ENACTMENT (EG) nr. 1907/2006, art.31 appendix II.



10	Stability and Reactivity	<ul style="list-style-type: none"> ▶ Product is stable under normal temperature and pressures ▶ Store away from heat/moisture ▶ On burning formation of small quantities of hydrogen chloride ▶ On burning formation of small quantities of hydrogen chloride Thermal decomposition generates: chlorine dioxide, chlorates ▶ Temperature not exceeding 50°C ▶ Store away from heat/moisture ▶ Acids, Organic compounds, Combustibles, oil reducing agents
11	Toxicological information	<ul style="list-style-type: none"> ▶ 292 mg/kg ▶ N.D. ▶ Moderate irritant to skin ▶ 500 ppm/15 min. Note: This refer to ppm in air NOT in solution ▶ N.D. ▶ Not listed in carcinogenicity class (IRAC, EC, TLV, MAK) ▶ Not listed in mutagenicity class (EC, MAK) ▶ Not classified as toxic to reproduction (EC)
12	Ecological information	<ul style="list-style-type: none"> LC 50 Fathead minnow adult 0.17 mg/l/96 hrs LC 50 Bluegill young of the year 0.15 mg/l/96 hrs. N.A. N.A. Soluble in water, for other physicochemical properties see heading 9 N.A. No data available N.D. N.A. N.D. N.A. N.D. Not applicable, based on available data WGK 1 <p>Not dangerous for the ozone layer (Council Regulation (EC) No 2037/2000 O.J. L244</p>
13	Disposal Considerations	<p>Waste material code (91/689/EEC, Council Decision 2001/118/EC O.J. L47 LWCA : KGA category 01 (the Netherlands) Hazardous waste (91/689/EEC)</p> <ul style="list-style-type: none"> ▶ Removing of residues Removal as waste according to local and national prescriptions ▶ Polluted Packaging Removal as waste according to local and national prescriptions <p>After last use, the packaging should be totally empty and closed. The used packing is only suitable for the packing of this product. When the packing is consigned, it should be brought back by the supplier.</p>

IN ACCORDANCE WITH THE REACH-ENACTMENT (EG) nr. 1907/2006, art.31 appendix II.

14 Transport information

ADR
UN-number
Proper shipping name
ADR Class / Packing group
IATA/ICAO
UN-number
Proper shipping name
IATA Class / Packing group
IMDG
UN-number
Proper shipping name
IMO Class / Packing group

Chlorine dioxide may not be shipped as gas or solution
Not applicable – shipment Forbidden

Not applicable – shipment Forbidden

Not applicable – shipment Forbidden

15 Regulatory Information

Labeling Marks According to EC-Directives 67/548/EECs
Recognition Numbers and Hazard Symbols

Content
R-Phrases
S-Phrases

› n.a.



Irritant

›

› **36/38**

Irritating to eyes and skin

2

Keep out of reach of children

23

Do not breath gas/fumes/vapour/spray

46

If swallowed, seek medical advice immediately and show this container or label

National provisions:

The Netherlands:

Waterbezwaarlijkheid: 9

Germany:

WGK : 1 (Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 17 May 1999)

16 Other Information

This safety data sheet has been drawn up in accordance with THE REACH-ENACTMENT (EG) nr. 1907/2006, art.31 appendix II. This safety data sheet is exclusively made for industrial/professional use.

Full text of any R phrases referred to under heading 2:

R25 Toxic if swallowed

R34 Causes burns

Sources of key data used: The information contained herein is based on the present state of our knowledge.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the properties of the product. It is always the duty of users to determine the applicability of such information and recommendations and the suitability of any products for their own particular purpose.

Extra Remarks

--

IN ACCORDANCE WITH THE REACH-ENACTMENT (EG) nr. 1907/2006, art.31 appendix II.

Printing date : 2012-02-17
Compiled by : eOx International bv
Date of issue : 2011-05-06
Reference number : N-40741
Reason for revision : General revision

Product : EOXIDE LQ75 – 0.75% ClO2
Revision : 1
Revision number : 000
Page : 5