

# SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH)



## Art. 4746, OXY-DES

Version: 11

Revision date: 05.07.2023

Date of print: 05.07.2023

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

#### 1.1 Product identifier

**Identification / trade name:** Art. 4746, OXY-DES  
**REACH registration number:** not notifiable  
**UFI:** MC10-HPM7-AE0E-TFHA

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

**Use of the substance / mixture:**

Biocide for water treatment

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

**Supplier / Manufacturer:** HWR-CHEMIE GmbH  
Moosfeldstrasse 7  
D-82275 Emmering

**Telephone:** 0049-8141-51030  
**Telefax:** 0049-8141-510355  
**E-mail:** info@hwr-chemie.de

**E-mail (competent person):** infoSDB@hwr-chemie.de  
**Information contact:** Laboratory

#### 1.4 Emergency phone

**Emergency phone Germany:** 0049-8141-51030 (only during office hours)  
**Emergency phone Austria:** 0043 1 406 43 43 (poison information centre)

### SECTION 2. Hazards identification

#### 2.1 Classification of the substance or mixture

**Regulation (EC) No 1272/2008**

Acute Tox. 4, H302, H332; Skin Irrit. 2, H315; Eye Dam. 1, H318; STOT SE 3, H335

#### 2.2 Label elements

**Regulation (EC) No 1272/2008**

**Hazard pictograms**



**Signal word:** Danger.

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### Hazard components for labeling

Hydrogen peroxide, aqueous solution

### Hazard statements

H302 + H332 Harmful if swallowed or inhaled.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

### Precautionary statements

P261 Avoid breathing mist / vapours / spray.

P280 Wear protective gloves / protective clothing / eye protection / face protection.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P301+ P330 IF SWALLOWED: Rinse mouth.

P310 Immediately call a POISON CENTER / doctor.

P501 Dispose of contents/container at hazardous or special waste collection point.

### 2.3 Other hazards

The substances in this mixture do not meet the PBT/vPvB criteria of REACH, annex XIII.

The substances in this mixture do not have any endocrine disrupting properties.

## SECTION 3. Composition / information on ingredients

### 3.1 Substances

This product is a mixture.

### 3.2 Mixtures

#### Chemical characterization

Mixture of hydrogen peroxide and special stabilizers in aqueous solution.

#### Hazardous ingredients

30 - 35 % Hydrogen peroxide in solution, EG 231-765-0, CAS 7722-84-1,  
Ox. Liq. 1, H271; Acute Tox. 4, H302, H332; Skin corr. 1A, H314; Eye Dam. 1, H318;  
STOT SE 3, H335; Aquatic Chronic 3, H412

#### Additional information

Full text of hazard classes and H-phrases: see section 16

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### SECTION 4. First aid measures

#### 4.1 Description of first aid measures

<b>General informations:</b>	In case of persistent symptoms seek medical advice. Remove contaminated clothing. In case of unconsciousness place patient into stable side position for transportation. Never give fluids or induce vomiting if patient is unconscious or is having convulsions.
<b>In case of inhalation:</b>	Provide affected person with fresh air and seek medical advice depending on the symptoms.
<b>In case of skin contact:</b>	Contaminated, soaked clothing should be immediately removed. Wash skin thoroughly with soap and water. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.
<b>In case of eye contact:</b>	Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
<b>In case of ingestion:</b>	Rinse mouth immediately and then drink plenty of water. Do not induce vomiting. Seek medical advice at once.
<b>Additional hints:</b>	Self-protection of the first aider: wear protective clothing, gloves and safety goggles (see Section 8).

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

Contact with eyes may cause reddening, running eyes and smarting pain. Prolonged contact may lead to irreversible damage up to blindness. Ingestion may cause severe pain in the digestive tract. Possible burn of the upper part of gastrointestinal tract. Inhalation may cause cough and shortness of breath. Risk of pulmonary oedema.

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

Symptomatic treatment (decontamination, vital functions), no known specific antidote.

### SECTION 5. Fire-fighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media:** Water spray jet.

**Unsuitable extinguishing media:** Full water jet, Carbon dioxide (CO<sub>2</sub>).

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

Product does not burn itself. Liberated oxygen may have an oxidizing effect. Heating of container(s) will cause pressure rise with risk of bursting.

#### 5.3 Advice for fire-fighters

Cool closed containers exposed to fire with water spray jet.  
Special protective equipment: Wear full protective suit with self-contained breathing apparatus.  
Collect contaminated fire extinguishing water separately. Do not allow entering drains, surface water or soil.

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### SECTION 6. Accidental release measures

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

Avoid inhalation and contact with skin and eyes. Wear protection equipment.

#### 6.2 Environmental precautions

Large quantities of spills should be contained by. Do not allow to enter undiluted into surface water or drains.

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

Absorb with an absorbent material and dispose of according to local regulations.  
Spilled product should not be returned to the original container.

#### 6.4 Reference to other sections

Observe protective measures in sections 8 and disposal considerations in section 13.

### SECTION 7. Handling and Storage

#### 7.1 Precautions for safe handling

##### Advices on safe handling

Wear protective clothing. Open carefully and keep container closed when not in use.

General hygiene measures:

- Eating, drinking or smoking is prohibited in areas, where work is performed.
- Wash your hands after use.
- Take off contaminated clothing and protective equipment before entering eating areas.

##### Precautions against fire and explosion

Product does not burn itself, but may have an oxidizing effect.

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

##### Requirements for storage rooms and vessels

Keep container tightly closed in a cool and well-ventilated place. Container should not be closed air-tight.

Protect container from intense sunlight and heat exposure. Store locked up.

Storage compatibility and limitations according to TRGS 510 must be observed.

#### 7.3 Specific end uses

Observe product information sheet.

eCl@ss (8.0): 30-30-90-90 / GISCODE: GD13

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### SECTION 8. Exposure controls / Personal protection

#### 8.1 Control parameters

##### Workplace exposure limits according to TRGS 900

Substances: Hydrogen peroxide

Occupational exposure limit: 0.5 ppm, 0.71 mg/m<sup>3</sup>

Top limiting and exceedance factor: 1 (I)

Notes: DFG, Y

#### 8.2 Exposure controls / Personal protection equipment

##### Appropriate engineering controls

See section 7. No additional measures necessary.

##### Personal protection equipment

**Respiratory protection:** Respiratory protection filter B-P2 necessary at exposure limit overshoot.

**Hand protection:** Tested gloves with breakthrough time  $\geq$  8 hours made from NR 0.5 mm, CR 0.5 mm, NBR 0.35 mm, Butyl 0.5 mm, FKM 0.4 mm, PVC 0.5 mm

**Eye protection:** use safety goggles

**Protective clothing:** Acid-resistant protection clothing.

##### General health and safety measures

Respect good personal hygiene. Do not drink, eat or smoke while handling.

##### Environmental exposure controls

See section 6 and 7.

### SECTION 9. Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

##### General information

<b>Physical state:</b>	liquid
<b>Colour:</b>	colourless
<b>Odour:</b>	odourless
<b>pH value (undiluted):</b>	< 5.0
<b>pH value (1 %):</b>	approx. 6
<b>Melting point/Freezing point (°C):</b>	approx. -33
<b>Boiling temperature (°C):</b>	approx. 108
<b>Flashpoint (°C):</b>	not applicable
<b>Flammability (solid, gas):</b>	not applicable
<b>Lower explosion limit:</b>	not applicable

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Upper explosion limit:	not applicable
Vapour pressure (hPa):	approx. 0.5
Relative vapor density:	not determined
Density (20 °C):	approx. 1.13
Solubility:	completely mixable with water
Partition coefficient (KOW):	log Kow -1,57 (20 °C) (calculated)
Ignition temperature:	not determined
Decomposition temperature:	not determined
Dynamic viscosity (mPas):	< 10
Particle properties:	not applicable

### 9.2 Other information

#### Other safety characteristics

No other physical and chemical data has been recorded.

## SECTION 10. Stability and Reactivity

### 10.1 Reactivity

Forms oxygen with alkalis, sodium hypochlorite, nitric acid and permanganates under intense heat development.

### 10.2 Chemical stability

Decomposes on heating or when exposed to light. Slow self-decomposition at room temperature.

### 10.3 Possibility of hazardous reactions

There are expected no hazardous reactions for intended use.

### 10.4 Conditions to avoid

Avoid heat and direct sunlight. Note the information about handling and storage in section 7.

### 10.5 Incompatible materials

Avoid contact with combustible or organic matters, reducing or oxidizing agents, copper, aluminum, zinc, iron, alkalis and metal oxides.

### 10.6 Hazardous decomposition products

The decomposition produces oxygen.

## SECTION 11. Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Hydrogen peroxide 35%

ATE oral = 862.2 – 1231.4 mg/kg body weight (literature)

ATE inhalative (4h) = 3 – 4.3 mg/l (mist) (literature)

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### Skin Corrosion / Irritation

Mixture is classified as irritating to the skin.

### Serious Eye Damage / Irritation

Mixture causes serious eye damage.

### Sensitisation

Mixture does not contain any sensitising substances.

### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mixture does not contain any substances which are classified as carcinogenic, mutagenic or toxic for reproduction.

### Specific target organ toxicity (single exposure)

May cause respiratory irritation.

### Specific target organ toxicity (repeated exposure)

Mixture does not contain any substances with specific target organ toxicity (repeated exposure).

### Aspiration hazard

Not classified. Mixture does not contain any hydrocarbons.

## 11.2 Information on other hazards

### Endocrine disrupting properties

This mixture does not contain any substances which are identified as endocrine disrupting.

### Other information

No further data available.

## SECTION 12. Ecological information

### 12.1 Toxicity

Fish

LC50: 16.4 mg/l (Pimephales promelas; 96 h)

Daphnia

EC50: 2.4 mg/l (Daphnia pulex; 48 h)

Algae

NOEC: 0.63 mg/l (Skeletonema costatum; 72 h)

Bacteria

EC50: > 1000 mg/l (activated sludge; 3 h) (OECD 209)

EC50: 466 mg/l (activated sludge; 30 min) (OECD 209)

Chronic toxicity, aquatic invertebrates

NOEC: 0.63 mg/l (Daphnia magna; 21 d)

### 12.2 Persistence and degradability

Fast decomposition to oxygen and water.

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### 12.3 Bioaccumulative potential

Does not bioaccumulate.

### 12.4 Mobility in soil

Not expected to adsorb on soil.

### 12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

### 12.6 Endocrine disrupting properties

This mixture does not contain any substances which are identified as endocrine disrupting.

### 12.7 Other adverse effects

No data available.

## SECTION 13. Disposal considerations

### 13.1 Waste treatment methods

#### Recommendation

Concentrates should not be disposed of via wastewater. Hazardous waste according to European list of wastes. Dispose of in accordance with local, official regulations.

#### Waste codes/waste designations according to EWC

The waste code is established in consultation with the regional waste disposer.

### Packaging

#### Contaminated package

Dispose of in accordance with local, official regulations.

Waste code 15 01 10 (packaging containing residues of or contaminated by hazardous substances)

#### Cleaned package

Non contaminated and clean packagings can be used for recycling.

## SECTION 14. Transport information

### 14.1 UN number or ID number

2014

### 14.2 UN Proper shipping name:

#### ADR / RID:

Hydrogen peroxide, aqueous solution

#### IMDG-Code / ICAO-TI / IATA-DGR:

Hydrogen peroxide, aqueous solution



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### 14.3 Transport hazard class(es)

ADR / RID / IMDG-Code / ICAO-TI / IATA-DGR:

5.1

### 14.4 Packing group

II

### 14.5 Environmental hazards

Not classified.

### 14.6 Special precautions for user

See section 6 and 8.

### 14.7 Maritime 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

#### EU regulations

Subject to the Regulation (EC) No. 528/2012 concerning the making available on the market and use of biocidal products.

#### National regulations

Maternity Protection Act (MuSchG): not applicable.

Major Accidents Ordinance (12. BImSchV): not applicable.

Observe employment restrictions for young people (§ 22 JArbSchG).

Water hazard class: WGK 1 (in accordance with German regulation AwSV)

### 15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment has not been carried out.

## SECTION 16. Other information

### Indication of changes

Revised sections: 1, 3, 15

### Hazard statements referred to in Section 2 and 3 i.a.w. Regulation (EC) No 1272/2008

Ox. Liq. 1, H271 = Oxidising liquids, category 1, May cause fire or explosion; strong oxidiser.

Acute Tox. 4, H302 = Acute toxicity, category 4, Harmful if swallowed.

Skin Corr. 1A/B/C, H314 = Skin corrosion / irritation, category 1A/B/C, Causes severe skin burns and eye damage.

Skin Irrit. 2, H315 = Skin corrosion / irritation, category 2, Causes skin irritation.

Eye Dam. 1, H318 = Eye damage / irritation, category 1, Causes serious eye damage.

Acute Tox. 4, H332 = Acute toxicity, category 4, Harmful if inhaled.

STOT SE 3, H335 = Specific target organ toxicity (single exposure), category 3, May cause respiratory irritation.

Aquatic Chronic 3, H412 = Hazardous to the aquatic environment, chronic, category 3, Harmful to aquatic life with long lasting effects.

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### Key literature references and sources for data

REACH Regulation (EC) No. 1907/2006

CLP Regulation (EC) No. 1272/2008

All data were taken from the safety data sheets of our sub-suppliers, where available. Missing data were taken from the Substance Database GESTIS of the Institute for Occupational Safety and Health of the German statutory accident insurance or from the database of the European Chemicals Agency (ECHA).

### Legend

ABEK Filter designation  
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE mix Acute Toxicity Estimates for mixtures  
AVV European waste list regulation  
AwSV Ordinance on systems for handling water-polluting substances  
Butyl Butyl rubber  
CAS (Registration number) Chemical Abstracts Service  
CLP Regulation on classification, labelling and packaging of substances and mixtures  
CMR Carcinogenicity, mutagenicity, reproductive toxicity  
CR Chloroprene rubber  
EC50 Median effective concentration  
EG (Registration number) European Union  
ErC50 Median effective concentration  
FIFRA Federal Insecticide, Fungicide and Rodenticide Act  
FKM Fluorocarbon rubber  
GISCODE Labelling system of the professional associations in the construction industry  
IATA-DGR International Air Transport Association - Dangerous Goods Regulations  
IBC International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
ICAO-TI Technical Instructions For The Safe Transport of Dangerous Goods by Air  
IMDG International Maritime Dangerous Goods  
LC50 Lethal concentration of a substance leading to the death of 50% of the exposed organisms  
LD50 Lethal dose of a substance that leads to death of 50% of the organisms exposed to it  
MARPOL International Convention for the Prevention of Pollution from Ships  
NBR Acrylonitrile butadiene rubber  
NOEC No Observed Effect Concentration  
NOEL No Observed Effect Level  
NR Natural rubber  
OECD Organisation for Economic Co-operation and Development  
PBT Persistent, bioaccumulating, toxic  
PET Polyethylene terephthalate  
PTFE Polytetrafluoroethylene  
PVC Polyvinyl chloride  
REACH Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals  
RID Convention concerning International Carriage by Rail  
TRGS Technical Rules for Hazardous Substances  
UN United Nations  
US-EPA United States Environmental Protection Agency  
VOC Volatile Organic Compounds  
vPvB Very persistent, very bioaccumulating  
WGK Water hazard class

### Further information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal.