

# SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 and 453/2010



## Hyperox<sup>®</sup>

Version 3.1

Revision Date 13.05.2011

Ref.130000033587

This SDS adheres to the standards and regulatory requirements of Great Britain and may not meet the regulatory requirements in other countries.

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### Product identifier

Product name : Hyperox<sup>®</sup>

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

Use of the Substance/Mixture : Disinfectant

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

Company : Antec International Limited  
Windham Road  
Chilton Industrial Estate  
Sudbury / Suffolk - CO10 2XD  
United Kingdom

Telephone : +44(0)1787 377 305

Telefax : +44(0)1787 310 846

E-mail address : sds-support@che.dupont.com

#### Emergency telephone number

Emergency telephone number : +44-(0)8456-006.640

Remarks : Antec International Limited is a wholly owned subsidiary of Dupont (UK) Ltd.

### 2. HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

Oxidising R 8: Contact with combustible material may cause fire.  
Corrosive R34: Causes burns.  
Harmful R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

#### Label elements



Corrosive



Oxidising

R 8 Contact with combustible material may cause fire.  
R20/21/22 Also harmful by inhalation, in contact with skin and if swallowed.

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R34	Causes burns.
Special labelling of certain substances and mixtures	Spray application: Do not breathe vapours or spray mist. Use only in well-ventilated areas. Do not spray on a naked flame or any other incandescent material. Use an airless flow type spray applicator. Keep spraying pressure below 4.1 bar (410 kPa). Before use, read DuPont's safety information.
S 3/7 S14	Keep container tightly closed in a cool place. Keep away from contaminants, decomposition catalysts, alkalis, reductants and flammable substances
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 S35 S36/37/39 S45	After contact with skin, wash immediately with plenty of water. This material and its container must be disposed of in a safe way. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### Other hazards

Inhalation of aerosol or fine spray mist may cause serious respiratory problems.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the mixture : Aqueous solution

#### Substances

not applicable

#### Mixtures

Registration number	Classification according Directive 67/548/EEC	Classification according Regulation 1272/2008 (CLP)	Concentration
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#### Peracetic acid (CAS-No.79-21-0) (EC-No.201-186-8)

Registration number	Classification according Directive 67/548/EEC	Classification according Regulation 1272/2008 (CLP)	Concentration
	R10 O;R 7 Xn;R20/21/22 C;R35 N;R50	Flam. Liq. 3; H226 Org. Perox. D; H242 Acute Tox. 4; H332 Acute Tox. 4; H312 Acute Tox. 4; H302 Skin Corr. 1A; H314 Aquatic Acute 1; H400	3 - 8 %

#### Hydrogen peroxide (CAS-No.7722-84-1) (EC-No.231-765-0)

Registration number	Classification according Directive 67/548/EEC	Classification according Regulation 1272/2008 (CLP)	Concentration
	R 5 O;R 8 C;R35 Xn;R20/22	Ox. Liq. 1; H271 Acute Tox. 4; H332 Acute Tox. 4; H302 Skin Corr. 1A; H314	20 - 30 %

#### Acetic acid (CAS-No.64-19-7) (EC-No.200-580-7)

Registration number	Classification according Directive 67/548/EEC	Classification according Regulation 1272/2008 (CLP)	Concentration
	R10	Flam. Liq. 3; H226	3 - 8 %

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	C;R35	Skin Corr. 1A; H314	
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### Poly(acrolein/acrylic acid) (CAS-No.28349-72-6)

	Xi;R41	Eye Dam. 1; H318	1 - 5 %
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For the full text of the R-phrases mentioned in this Section, see Section 16.  
For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. FIRST AID MEASURES

### Description of first aid measures

- General advice : Keep upper body upright Never give anything by mouth to an unconscious person. When symptoms persist or in all cases of doubt seek medical advice.
- Inhalation : Move to fresh air. If victim has stopped breathing: Artificial respiration and/or oxygen may be necessary. Call a physician immediately.
- Skin contact : Wash off immediately with plenty of water. Take off contaminated clothing and shoes immediately. Consult a physician.
- Eye contact : Remove contact lenses. Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. Seek medical advice.
- Ingestion : Do NOT induce vomiting. Rinse mouth. Drink 1 or 2 glasses of water. Call a physician immediately.

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

- Symptoms : Corrosion, Shortness of breath, Cough, Damage

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

no data available

## 5. FIRE-FIGHTING MEASURES

### Extinguishing media

- Suitable extinguishing media : Foam, Dry powder, Water spray

- Extinguishing media which shall not be used for safety reasons : Carbon dioxide (CO<sub>2</sub>)

### Special hazards arising from the substance or mixture

- Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.

### Advice for firefighters

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Special protective equipment : Wear self-contained breathing apparatus and protective suit.  
for fire-fighters

Further information : Use water spray to cool unopened containers. Prevent fire  
extinguishing water from contaminating surface water or the  
ground water system.

### 6. ACCIDENTAL RELEASE MEASURES

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

Personal precautions : Evacuate personnel to safe areas. Wear personal protective equipment.

#### Environmental precautions

Environmental precautions : Do not contaminate surface water. Do not let product enter drains.

#### Methods and materials for containment and cleaning up

Methods for cleaning up : Clean-up methods - large spillage Clean contaminated surface thoroughly. To  
clean the floor and all objects contaminated by this material, use plenty of water.  
Soak up with inert absorbent material. Shovel into suitable container for  
disposal.  
Clean-up methods - small spillage Dilute with plenty of water. Flush away traces  
with water. Soak up with inert absorbent material and dispose of as hazardous  
waste. Shovel into suitable container for disposal.

Other information : Dispose of in accordance with local regulations.

#### Reference to other sections

not applicable

### 7. HANDLING AND STORAGE

#### Precautions for safe handling

Advice on safe handling : For personal protection see section 8. Avoid contact with skin, eyes and  
clothing. Check packages regularly for any signs of deformation, pressure build-  
up leakage or temperature rise. Do not breathe vapour. Avoid formation of  
respirable particles.

Advice on protection : Keep away from direct sunlight.  
against fire and explosion

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

Requirements for storage : Protect from contamination. Keep in original, vented container. When stacking,  
areas and containers do not block cap vent. Keep in a dry, cool place.

Advice on common storage : Keep away from oxidising agents, strongly alkaline and strongly acid materials  
in order to avoid exothermic reactions.

Keep away from: Strong bases Combustible material

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## Specific end uses

no data available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

If sub-section is empty then no values are applicable.

### Components with workplace control parameters

Type Form of exposure	Control parameters	Update	Basis	Remarks
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### Hydrogen peroxide (CAS-No. 7722-84-1)

TWA	1,4 mg/m <sup>3</sup> 1 ppm	2007	EH40 WEL	
STEL	2,8 mg/m <sup>3</sup> 2 ppm	2007	EH40 WEL	

### Acetic acid (CAS-No. 64-19-7)

TWA	25 mg/m <sup>3</sup> 10 ppm	12 2009	EU ELV	Indicative
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### Exposure controls

- Engineering measures : Provide local exhaust ventilation when handling material in bulk. acid resisting floor Jointless smooth floor Use an airless flow type of spray applicator. Keep spraying pressure below 4.1 bar (410 kPa).
- EYE protection : Tightly fitting safety goggles  
Face-shield
- Hand protection :  
Rubber gloves Neoprene gloves Polyvinyl chloride - PVC
- Skin and body protection : Wear as appropriate: Complete suit protecting against chemicals Rubber or plastic boots
- Hygiene measures : Wash hands before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing.
- Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

- Form : liquid
- Colour : colourless

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Odour	: stinging
pH	: 1 at ( 20 °C)
Melting point/range	: ca. -61 - -60 °C
Boiling point/boiling range	: > 60 °C estimated
Flash point	: > 96 °C , Method: No information available. estimated
Ignition temperature	: ca. 430 °C
Self-Accelerating decomposition temperature (SADT)	: 45 °C
Vapour pressure	: 27 hPa at 20 °C, estimated
Density	: ca. 1,12 g/cm <sup>3</sup> at 20 °C
Water solubility	: completely miscible

### Other information

no data available

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	: Decomposes on heating.
<b>Chemical stability</b>	: Decomposes on heating.
<b>Possibility of hazardous reactions</b>	: Potential for exothermic hazard If contaminated with impurities or incompatible substances, self-accelerated exothermic decomposition may occur. Decomposition in confined spaces and pipes may lead to over-pressure and bursting. Heating can release hazardous gases. Oxygen formation is possible. Decomposes on heating.
<b>Conditions to avoid</b>	: Exposure to sunlight. Heat.
<b>Incompatible materials</b>	: Metals Contamination Reducing agents Bases Powdered metal salts Combustible material Flammable materials organic solvent
<b>Hazardous decomposition products</b>	: no data available

## 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects

Acute oral toxicity

LD50 / rat female : 1 859 mg/kg

Acute inhalation toxicity

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ALC / rat : 0,49 mg/l

Acute dermal toxicity

LD50 / rat : 1 147 mg/kg

Skin irritation

rabbit

Classification: Corrosive

Method: OECD Test Guideline 404

Eye irritation

rabbit

Result: Corrosive

Sensitisation

guinea pig Buehler Test

Result: Animal test did not cause sensitization by skin contact.

Repeated dose toxicity

Oral rat

Exposure time: 90 d

Method: OECD Test Guideline 408

Mutagenicity assessment

- Hydrogen peroxide  
Experiments showed mutagenic effects in cultured bacterial cells.
- Poly(acrolein/acrylic acid)  
no data available

Carcinogenicity assessment

- Hydrogen peroxide  
no data available
- Poly(acrolein/acrylic acid)  
no data available

Toxicity to reproduction assessment

- Peracetic acid  
no data available
- Hydrogen peroxide  
No toxicity to reproduction
- Poly(acrolein/acrylic acid)  
no data available

Assessment teratogenicity

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- Peracetic acid  
no data available
- Poly(acrolein/acrylic acid)  
no data available

### Human experience

Excessive exposures may affect human health, as follows:

#### Inhalation

*Upper respiratory tract:* Cough, Damage, Severe shortness of breath

#### Skin contact

*Skin:* Damage, Corrosion

#### Eye contact

*Eyes:* Damage, Corrosion

## 12. ECOLOGICAL INFORMATION

### Toxicity

#### Toxicity to fish

LC50 / 96 h / *Oncorhynchus mykiss* (rainbow trout): 1 - 2 mg/l

#### Toxicity to aquatic plants

IC50 / 120 h / *Scenedesmus capricornutum* (fresh water algae): ca. 0,18 mg/l  
Method: US EPA Test Guideline OPP 122-2 & 123-2

#### Toxicity to aquatic invertebrates

EC50 / 48 h / *Daphnia*: 0,5 - 1,1 mg/l  
Method: OECD Test Guideline 202

#### Chronic toxicity to aquatic Invertebrates

NOEC / 21 d / *Daphnia magna* (Water flea): 0,05 mg/l

### Persistence and degradability

#### Biodegradability

Readily biodegradable.

### Bioaccumulative potential

no data available

### Mobility in soil

no data available



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### Results of PBT and vPvB assessment

no data available

### Other adverse effects

Adsorbed organic bound halogens (AOX)

Product does not contain any organic halogens.

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

Product : Dispose of as special waste in compliance with local and national regulations.  
The product should not be allowed to enter drains, water courses or the soil.

Contaminated packaging : If recycling is not practicable, dispose of in compliance with local regulations.

## 14. TRANSPORT INFORMATION

### ADR

Class: 5.1  
Packaging group: II  
Classification Code: OC1  
HI No: 58  
UN number: 3149  
Labelling No.: 5.1, 8  
Proper shipping name: Hydrogen peroxide and peroxyacetic acid mixture, stabilized  
Tunnel restriction code: (E)

### IATA\_C

Class: 5.1  
Packaging group: II  
UN number: 3149  
Labelling No.: 5.1, 8  
Proper shipping name: Hydrogen peroxide and peroxyacetic acid mixture, stabilized

### IMDG

Class: 5.1  
Packaging group: II  
UN number: 3149  
Labelling No.: 5.1, 8  
Proper shipping name: Hydrogen peroxide and peroxyacetic acid mixture, stabilized

## 15. REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

no data available

### Chemical Safety Assessment

no data available

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## 16. OTHER INFORMATION

### Text of R-phrases mentioned in Section 3

R 5	Heating may cause an explosion.
R 7	May cause fire.
R 8	Contact with combustible material may cause fire.
R10	Flammable.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R20/22	Harmful by inhalation and if swallowed.
R35	Causes severe burns.
R41	Risk of serious damage to eyes.
R50	Very toxic to aquatic organisms.

### Full text of H-Statements referred to under section 3.

H226	Flammable liquid and vapour.
H242	Heating may cause a fire.
H271	May cause fire or explosion; strong oxidiser.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.

Other information                      professional use

Significant change from previous version is denoted with a double bar.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The above information relates only to the specific material(s) designated herein and may not be valid for such material(s) used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.