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

1.1 Product identifier

Trade name : Dialox

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

Use of the Substance/Mixture : Disinfectants

1.3 Details of the supplier of the safety data sheet

Supplier : Schülke France SARL
28 rue d`Arcueil

94250 Gentilly
France
Telephone: +33 (0) 149 69 83 78
Telefax: +33 (0) 149 69 83 85

Producer : BIOXAL SA - AIR LIQUIDE Group
Route des Varennes - BP 72

71103 Chalon-sur-Saône Cedex
France
Telephone: + 33 (0) 3 85 92 30 00
Telefax: + 33 (0) 3 85 92 30 12

Contact person : mail@schuelke-mayr.com
+33 (0) 149 69 83 78

1.4 Emergency telephone number

Emergency telephone number : UK Poisons Emergency number: 0870 600 6266

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (67/548/EEC, 1999/45/EC)

Irritant	R38: Irritating to skin.
Irritant	R41: Risk of serious damage to eyes.

2.2 Label elements

Labelling according to EC Directives (1999/45/EC)

Hazard pictograms :

Irritant

R-phrase(s) : R38 Irritating to skin.
R41 Risk of serious damage to eyes.

S-phrase(s)	:	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
		S28	After contact with skin, wash immediately with plenty of water.
		S37/39	Wear suitable gloves and eye/face protection.
		S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
		S50	Do not mix with other products.

In the EU, this product falls under the Directive medical devices 93/42/EEC.

2.3 Other hazards

No special risks known.

3. Composition/information on ingredients

3.2 Mixtures

Chemical nature : Solution of the following substances with harmless additives.

Hazardous components

Chemical Name	Index-Number CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Peracetic acid	607-094-00-8 79-21-0 201-186-8	R10 O; R 7 Xn; R20/21/22 C; R35 N; R50	Flam. Liq. 3; H226 Org. Perox. D; H242 Acute Tox. 4; H302 Acute Tox. 4; H312 Acute Tox. 4; H332 Skin Corr. 1A; H314 Aquatic Acute 1; H400 STOT SE 3; H335	0,4 %
Acetic acid	607-002-00-6 64-19-7 200-580-7 01-2119475328-22-XXXX	C; R10-R35	Flam. Liq. 3; H226 Skin Corr. 1A; H314	3,6 %
Hydrogen peroxide	008-003-00-9 7722-84-1 231-765-0 01-2119485845-22-XXXX	O; R 8 R 5 C; R35 Xn; R20/22	Ox. Liq. 1; H271 Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Corr. 1A; H314	6,9 %

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

4.1 Description of first aid measures

General advice : Take off all contaminated clothing immediately.

If inhaled : Move the victim to fresh air and keep him calm.
If symptoms persist, call a physician.

In case of skin contact : Wash off immediately with plenty of water.
If symptoms persist, call a physician.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.

If swallowed : Rinse mouth.
Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Treat symptomatically.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : For specialist advice physicians should contact the Poisons Information Service.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Dry powder
Foam
Water spray jet

Unsuitable extinguishing media : Carbon dioxide (CO2)
High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : none

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

Specific risk from the substance or the product itself, its combustion products or evolved gases	:	Fire may cause evolution of:, Oxygen

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Avoid contact with skin and eyes. Do not breathe vapour.

6.2 Environmental precautions

Environmental precautions	:	Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	:	Wipe up with absorbent material (e.g. cloth, fleece). Suitable material for picking up Kieselguhr Universal binder Unsuitable material for picking up: Absorbent material, organic. Sawdust Keep in suitable, closed containers for disposal. Clean contaminated surface thoroughly. Flush with water.

6.4 Reference to other sections

See chapter 8 + 13

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	Provide sufficient air exchange and/or exhaust in work rooms. Handle and open container with care. Never return unused material to storage receptacle.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Keep only in the original container. Suitable container and packaging materials for safe storage Plastic container of HDPE Polyethylene glass Unsuitable materials for containers Metals

Further information on storage conditions	:	Keep away from heat. Keep away from direct sunlight. Store in cool place. Do not keep the container sealed. Keep in a dry place. Recommended storage temperature: 5 - 30°C
Advice on common storage	:	Do not store together with metals. Do not store together with alkalis. Do not store together with reducing agents. Do not store together with combustible substances.

7.3 Specific end uses

none

8. Exposure controls/personal protection

8.1 Control parameters

Components	CAS-No.	Value	Control parameters	Basis
Hydrogen peroxide	7722-84-1	WEL	1 ppm 1,4 mg/m3	HSE
Hydrogen peroxide	7722-84-1	WEL	2 ppm 2,8 mg/m3	HSE
Acetic acid	64-19-7	Permissible exposure limit	10 ppm 25 mg/m3	OSHA
Acetic acid	64-19-7	Permissible exposure limit	10 ppm 25 mg/m3	EC/2000/39

DNEL

Acetic acid	:	End Use: Workers Exposure routes: Inhalation Potential health effects: Local effects, Acute effects, Short-term exposure Value: 25 mg/m3 End Use: Workers Exposure routes: Inhalation Potential health effects: Local effects, Chronic effects, Long-term exposure Value: 25 mg/m3 End Use: Consumers Exposure routes: Inhalation

Potential health effects: Local effects, Acute effects, Short-term exposure
Value: 25 mg/m3

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Local effects, Chronic effects, Long-term exposure
Value: 25 mg/m3

Hydrogen peroxide : End Use: Workers
Exposure routes: Inhalation
Potential health effects: Local effects, Short-term exposure
Value: 3 mg/m3

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Local effects, Long-term exposure
Value: 1,4 mg/m3

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Local effects, Short-term exposure
Value: 1,93 mg/m3

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Local effects, Long-term exposure
Value: 0,21 mg/m3

PNEC
Acetic acid : Fresh water
Value: 3,058 mg/l

Marine water
Value: 0,3058 mg/l

Fresh water sediment
Value: 11,36 mg/kg

Marine sediment
Value: 1,136 mg/kg

Water
Value: 30,58 mg/l
Intermittent use/release

Soil
Value: 0,478 mg/kg

Effects on waste water treatment plants
Value: 85 mg/l

Hydrogen peroxide : Fresh water
Value: 0,0126 mg/l

Marine water
Value: 0,0126 mg/l

Water
Value: 0,0138 mg/l

Effects on waste water treatment plants
Value: 4,66 mg/l

8.2 Exposure controls

Personal protective equipment

Respiratory protection	:	If the occupational exposure limits cannot be met, in exceptional cases suitable respiratory equipment should be worn only for a short period of time. Combination filter: A2B2E2K1P2
Hand protection	:	Prolonged contact: Nitrile rubber gloves e.g. Camatril (>120 Min., layer thickness: 0,40 mm) or butyl rubber gloves e.g. Butoject (>480 Min., layer thickness: 0,70 mm) made by KCL or gloves from other manufacturers offering the same protection. Splash protection: disposable nitrile rubber gloves e.g. Dermatril (layer thickness: 0,11 mm) made by KCL or gloves from other manufacturers offering the same protection.
Eye protection	:	Tightly fitting safety goggles
Skin and body protection	:	Choose body protection according to the amount and concentration of the dangerous substance at the work place. Wear as appropriate: Chemical resistant apron Boots Neoprene
Hygiene measures	:	When using do not eat or drink.
Protective measures	:	Do not breathe vapour. Avoid contact with skin and eyes.

Environmental exposure controls

General advice	:	Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	colourless
Odour	:	pungent
Flash point	:	not applicable

Ignition temperature	:	not determined
Lower explosion limit	:	Acetic acid 6 %(V)
Upper explosion limit	:	Acetic acid 17 %(V)
Flammability	:	Does not sustain combustion.
Explosive properties	:	Not explosive
Oxidizing properties	:	not applicable
Autoignition temperature	:	not applicable
pH	:	ca. 1,1, 20 °C, concentrate
Melting point/range	:	ca. -15 °C
Decomposition temperature		no data available
Boiling point/boiling range	:	ca. 98 °C
Vapour pressure	:	32 hPa, ca. 20 °C
Density	:	1,03 g/cm3, 20 °C
Water solubility	:	completely soluble
Partition coefficient: n-octanol/water	:	not applicable
Viscosity, dynamic	:	not determined
Relative vapour density	:	no data available
Evaporation rate	:	no data available

9.2 Other information

None known.

10. Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

To avoid thermal decomposition, do not overheat.

10.4 Conditions to avoid

Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Reducing agents
Acid chlorides
Strong acids and strong bases
Aldehydes
Metals

10.6 Hazardous decomposition products

Decomposition products : Oxygen

11. Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity	:	LD50: Not harmful in doses of 2 ml/kg, rat, OECD Test Guideline 401
Acute inhalation toxicity		
Peracetic acid	:	LC50: 0,59 mg/l, 1 h, rat, OECD Test Guideline 403
Acetic acid	:	LC50: > 39,8 mg/l, 4 h, rat
Hydrogen peroxide	:	LC0: 16,1 mg/l, 4 h, vapour
Acute dermal toxicity		
Peracetic acid	:	no data available
Acetic acid	:	LD50: 1060 mg/kg, rabbit
Hydrogen peroxide	:	LD50: 2000 mg/kg, rabbit
Skin irritation	:	Result: Irritating to skin., OECD Test Guideline 404
Eye irritation	:	Result: Risk of serious damage to eyes., OECD Test Guideline 405
Sensitisation		
Peracetic acid	:	guinea pig, Result: Did not cause sensitization on laboratory animals.
Acetic acid	:	Result: no data available
Hydrogen peroxide	:	guinea pig, Result: Did not cause sensitization on laboratory animals.
Germ cell mutagenicity		
Peracetic acid	:	Ames test, Result: negative
Acetic acid	:	Ames test, Result: negative
Hydrogen peroxide	:	Ames test, Result: negative
Genotoxicity in vivo		
Hydrogen peroxide	:	in vivo assay, Result: not mutagenic
Mutagenicity		
Peracetic acid	:	Animal testing did not show any mutagenic effects.
Acetic acid	:	Not mutagenic in Ames Test.
Hydrogen peroxide	:	Not mutagenic in Ames Test.
Carcinogenicity		
Peracetic acid	:	Animal testing did not show any carcinogenic effects.

Acetic acid	:	Animal testing did not show any carcinogenic effects.
Hydrogen peroxide	:	Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Peracetic acid	:	rat, Oral, NOAEL: 200 mg/l, F1: 200 mg/l

Reproductive toxicity

Peracetic acid	:	Animal testing did not show any effects on fertility.
Acetic acid	:	Animal testing did not show any effects on fertility.
Hydrogen peroxide	:	Animal testing did not show any effects on fertility.

Teratogenicity

Peracetic acid	:	no data available
Acetic acid	:	no data available
Hydrogen peroxide	:	Embryotoxicity classification not possible from current data.

Repeated dose toxicity

Acetic acid	:	rat, Oral, Exposure time: 14-day, NOAEL: 1.800 mg/kg

12. Ecological information

12.1 Toxicity

Toxicity to fish	:	LC50: 10 - 100 mg/l, 96 h, Brachidanio rerio, OECD Test Guideline 203, GLP: yes
Toxicity to daphnia and other aquatic invertebrates.	:	EC50: 10 - 100 mg/l, 48 h, Daphnia magna, OECD Test Guideline 202, GLP: yes
Toxicity to algae	:	EC50: 10 - 100 mg/l, 72 h, Desmodesmus subspicatus (green algae), OECD Test Guideline 201, GLP: yes

12.2 Persistence and degradability

Biodegradability

Peracetic acid	:	Result: Totally biodegradable, OECD Test Guideline 301
Acetic acid	:	Result: Totally biodegradable, OECD 301D / EEC 84/449 C6
Hydrogen peroxide	:	Result: Totally biodegradable, OECD Test Guideline 301

12.3 Bioaccumulative potential

Bioaccumulation

Peracetic acid	:	Does not bioaccumulate.
Acetic acid	:	Bioaccumulation is unlikely.
Hydrogen peroxide	:	Does not bioaccumulate.

Partition coefficient: n-octanol/water	:	not applicable

12.4 Mobility in soil

Mobility

Peracetic acid	:	Water, Hydrolyses readily.
Acetic acid	:	no data available
Hydrogen peroxide	:	Water, Hydrolyses readily.

12.5 Results of PBT and vPvB assessment

Assessment	:	This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

12.6 Other adverse effects

Additional ecological information	:	none

13. Disposal considerations

13.1 Waste treatment methods

Product	:	Dispose of the product according to the defined EWC (European Waste Code) No. Dispose of as hazardous waste in compliance with local and national regulations.
Contaminated packaging	:	Take empty packaging to the recycling plant.
Waste key for the unused product	:	EWC 160903
Waste key for the unused product(Group)	:	peroxides, e.g. hydrogen peroxide

14. Transport information

ADR	:	UN number	none
		Proper shipping name	
		-	
		Transport hazard class	-
		Packaging group	-
		Environmental hazards	-
		Classification Code	-
		ADR/RID-Labels	-
		ICAO-Labels	-
IMDG	:	UN number	none
		Proper shipping name	
		-	
		Transport hazard class	-
		Packaging group	-
		Environmental hazards	-
		EmS	-
IATA	:	UN number	none

Proper shipping name
-
Transport hazard class -
Packaging group -
Environmental hazards -

Special precautions for user

none
Further information : Not classified as supporting combustion according to the transport regulations.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Exempt

15. Regulatory information

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

Legislation on the control of major-accident hazards involving dangerous substances : Directive 96/82/EC does not apply

15.2 Chemical Safety Assessment

Exempt

16. Other information

Full text of R-phrases referred to under sections 2 and 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.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R50	Very toxic to aquatic organisms.

Full text of H-Statements referred to under sections 2 and 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.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

Changes compared with the previous edition!!!

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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.