

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

DryOx

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

Use of the substance/mixture

Cleaning agent

1.3. Details of the supplier of the safety data sheet

Dryden Aqua Ltd

Butlerfield, Bonnyrigg

Edinburgh EH19 3JQ

Telephone: +44 (0)18758 22222

Telefax: +44 (0)18758 22229

e-mail: aqua@drydenaqua.com

Responsible for the safety data sheet: sds@gbk-ingelheim.de

1.4. Emergency telephone number: +44 (0)18758 22222

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: O - Oxidizing, Xn - Harmful, Xi - Irritant

R phrases:

Contact with combustible material may cause fire.

Harmful in contact with skin.

Irritating to skin.

Risk of serious damage to eyes.

Harmful: danger of serious damage to health by prolonged exposure if swallowed.

GHS classification

Hazard categories:

Oxidising solid: Ox. Sol. 2

Acute toxicity: Acute Tox. 4

Serious eye damage/eye irritation: Eye Dam. 1

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazard Statements:

May intensify fire; oxidiser.

Harmful if swallowed, in contact with skin or if inhaled.

Causes serious eye damage.

May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

Pictograms:

GHS03-GHS05-GHS07-GHS08



Signal word:

Danger

Hazardous components which must be listed on the label

Sodium chlorite

Hazard statements

H272 May intensify fire; oxidiser.

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H318 Causes serious eye damage.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P220 Keep/Store away from clothing/combustible materials.

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

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.

Special labelling of certain mixtures

EUH029 Contact with water liberates toxic gas.
EUH031 Contact with acids liberates toxic gas.

2.3. Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
231-665-7	sodium hydrogensulphate	50 - 80 %
7681-38-1	Xi - Irritant R41	
016-046-00-X	Eye Dam. 1; H318	
231-836-6	Sodium chlorite	5-15 %
7758-19-2	O - Oxidizing, T - Toxic, C - Corrosive, Xn - Harmful, N - Dangerous for the environment R08-22-24-32-34-48/22-50	
	Ox. Sol. 1, Acute Tox. 2, Acute Tox. 3, Skin Corr. 1B, STOT RE 2, Aquatic Acute 1 (M-Factor = 1); H271 H310 H301 H314 H373 H400 EUH032 EUH071	

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Reacts with acids, with formation of chlorine dioxide (ClO₂).
Remove contaminated soaked clothing immediately and dispose of safely. Wash body carefully (bath or shower).

After inhalation

Move to fresh air in case of accidental inhalation of vapours.
Seek medical treatment immediately.

After contact with skin

Wash off immediately with soap and plenty of water.
Seek medical treatment immediately.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical treatment immediately.

After ingestion

Never give anything by mouth to an unconscious person. Do not induce vomiting.
Rinse out mouth and give plenty of water to drink.
Seek medical treatment immediately.

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

Causes serious eye damage.
May cause damage to organs through prolonged or repeated exposure.
Harmful in contact with skin.
Harmful by inhalation and if swallowed.

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

Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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Suitable extinguishing media

Dry fire-extinguishing substance

Extinguishing media which must not be used for safety reasons

water

Contact with water liberates toxic gas (ClO₂)

5.2. Special hazards arising from the substance or mixture

In case of fire formation of dangerous gases possible. (ClO₂)

5.3. Advice for firefighters

In case of fire, wear suitable respiratory equipment with positive air supply.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

In case of vapour formation use respirator. Avoid contact with skin, eyes and clothing. Use personal protective clothing. Keep away noninvolved persons. Ensure adequate ventilation. Do not breathe vapours and aerosols.

6.2. Environmental precautions

Do not discharge into the drains or bodies of water. Inform competent authority about release into the sewage, ground or into waters.

6.3. Methods and material for containment and cleaning up

Risk of fire if the water component dries out. Do not allow to dry.
Dilute with plenty of water.

6.4. Reference to other sections

Information for disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide sufficient air exchange and/or exhaust in work rooms.
Avoid contact with the skin and the eyes.
Follow the directions.

Further information on handling

Take the usual precautions when handling with chemicals.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep only in original container.
Keep container tightly closed in a dry, cool and well-ventilated place.
Keep out of the reach of children.

Advice on storage compatibility

Keep at a distance of acids, reducing agents and organic substances (e.g. wood, paper, fat). Keep away from metals

Further information on storage conditions

Keep from freezing. Protect from heat and direct solar radiation.

7.3. Specific end use(s)

DryOx Deep Clean Spa & Hot Tub, Cleaning agent

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Occupational exposure controls

Provide sufficient air exchange and/or exhaust in work rooms.

Protective and hygiene measures

At work do not eat, drink, smoke or take drugs.
Wash hands before breaks and immediately after handling the product.
Avoid contact with eyes and skin.

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Respiratory protection

In case of insufficient ventilation, especially in confined areas.
Half mask with a particle filter P3 (European Norm EN 143 = former DIN 3181).

Hand protection

Chemical-resistant gloves (EN 374).; PVC, PE
Follow the recommendations of the glove manufacturer for breakthrough properties especially for workplace conditions involving mechanical stress and contact duration.

Eye protection

Wear eye/face protection

Skin protection

Protection clothes

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Tablets
Colour:	White to yellowish
Odour:	Chlorine

pH-Value (at 20 °C):	6-7 (0,0025 % Solution)	Test method
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Changes in the physical state

Flash point:	n.a.
Lower explosion limits:	n.a.
Upper explosion limits:	n.a.
Ignition temperature:	n.a.
Density (at 20 °C):	n.d.
Water solubility:	Reacts with water.

9.2. Other information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with acids, with formation of chlorine dioxide (ClO₂). Contact with water liberates toxic gas (ClO₂)

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts with acids, with formation of chlorine dioxide (ClO₂). Contact with water liberates toxic gas (ClO₂)

10.4. Conditions to avoid

Keep away from combustible material.
Protect from atmospheric moisture and water.

10.5. Incompatible materials

Reacts with acids, with formation of chlorine dioxide (ClO₂). Contact with water liberates toxic gas (ClO₂)

10.6. Hazardous decomposition products

Reacts with acids, with formation of chlorine dioxide (ClO₂). Contact with water liberates toxic gas (ClO₂)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Harmful in contact with skin. (Proved by toxicological expert statement.)
Harmful by inhalation and if swallowed.

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CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	h
7758-19-2	Sodium chlorite				
	Acute oral toxicity	LD50	132 mg/kg	Rat	
	Acute dermal toxicity	LD50	107 mg/kg	Rabbit	
	Acute inhalation toxicity	LC50	0,29 mg/l	Rabbit	4

Irritation and corrosivity

Causes serious eye damage.

Severe effects after repeated or prolonged exposure

May cause damage to organs through prolonged or repeated exposure.

Carcinogenic/mutagenic/toxic effects for reproduction

Carcinogenicity: Not classified.

Mutagenicity: Not classified.

Reproductive toxicity: Not classified.

Further information

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name				
	Aquatic toxicity	Method	Dose	Species	h
7758-19-2	Sodium chlorite				
	Acute fish toxicity	LC50	50,6 mg/l		96 h
	Acute crustacea toxicity	EC50	0,29 mg/l		48 h

12.2. Persistence and degradability

Inorganic product.

12.3. Bioaccumulative potential

Not determined

12.4. Mobility in soil

Not determined

12.5. Results of PBT and vPvB assessment

Not determined

12.6. Other adverse effects

Hazardous water pollutant.

Further information

When discharging diluted application solutions into the public sewage system, local regulations (e.g. pH value) must be observed. Do not release undiluted into wastewater or drainage ditch.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Should not be disposed of with household waste.

Remove in accordance with local official regulations.

Waste disposal number of waste from residues/unused products

060704 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the MFSU of halogens and halogen chemical processes; solutions and acids, for example contact acid
Classified as hazardous waste.

Contaminated packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

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Packaging that cannot be cleaned should be disposed of like the product.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN1496
14.2. UN proper shipping name: SODIUM CHLORITE, mixture
14.3. Transport hazard class(es): 5.1
14.4. Packing group: II
Hazard label: 5.1



Classification code: O2
Limited quantity: 1 kg
Transport category: 2
Hazard No: 50
Tunnel restriction code: E

Marine transport (IMDG)

14.1. UN number: UN1496
14.2. UN proper shipping name: SODIUM CHLORITE, MIXTURE
14.3. Transport hazard class(es): 5.1
14.4. Packing group: II
Hazard label: 5.1



Special Provisions: -
Limited quantity: 1 kg
EmS: F-H, S-Q

Air transport (ICAO)

UN/ID number: UN1496
14.2. UN proper shipping name: SODIUM CHLORITE, MIXTURE
14.3. Transport hazard class(es): 5.1
14.4. Packing group: II
Hazard label: 5.1



Limited quantity Passenger: 2.5 kg
IATA-packing instructions - Passenger: 558
IATA-max. quantity - Passenger: 5 kg
IATA-packing instructions - Cargo: 562
IATA-max. quantity - Cargo: 25 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

The transport takes place only in approved and appropriate packaging.

SECTION 15: Regulatory information

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

National regulatory information

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Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing. Observe employment restrictions for women of child-bearing age.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses

ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure

IMDG = International Maritime Code for Dangerous Goods

IATA/ICAO = International Air Transport Association / International Civil Aviation Organization

MARPOL = International Convention for the Prevention of Pollution from Ships

IBC = Code International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

REACH = Registration, Evaluation, Authorization and Restriction of Chemicals

CAS = Chemical Abstract Service

EN = European norm

ISO = International Organization for Standardization

VOC = Volatile organic compound

STOT SE = Specific target organ toxicity single exposure

STOT RE = Specific target organ toxicity repeated exposure

PBT = Persistent Bioaccumulative and Toxic

vPvB = Very Persistent and very Bio-accumulative

bw = body weight

LD = Lethal dose

LC = Lethal concentration

EC = Effect concentration

IC = Median immobilisation concentration or median inhibitory concentration

Relevant R-phrases (Number and full text)

- 08 Contact with combustible material may cause fire.
- 22 Harmful if swallowed.
- 24 Toxic in contact with skin.
- 32 Contact with acids liberates very toxic gas.
- 34 Causes burns.
- 41 Risk of serious damage to eyes.
- 48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.
- 50 Very toxic to aquatic organisms.

Relevant H- and EUH-phrases (Number and full text)

- H271 May cause fire or explosion; strong oxidiser.
- H272 May intensify fire; oxidiser.
- H301 Toxic if swallowed.
- H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
- H310 Fatal in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- EUH029 Contact with water liberates toxic gas.
- EUH031 Contact with acids liberates toxic gas.
- EUH032 Contact with acids liberates very toxic gas.
- EUH071 Corrosive to the respiratory tract.

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

Safety Data Sheet according to Regulation (EC) No 1907/2006

Dryden Aqua Ltd

Revision date: 27.03.2013

Revision No: 1,00

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The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)