

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name Dryox
 Trade Name Dryox
 CAS No. Not applicable - mixture
 EC No. Not applicable - mixture

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

Identified Use(s) For use as directed to generate chlorine dioxide for emergency drinking water treatment and disinfection use in swimming pools and spas
 Uses Advised Against Anything other than the above or as directed by the supplier.

1.3 Details of the supplier of the safety data sheet

Manufacturer
 Company Identification Dryden Aqua Ltd
 Address of Manufacturer Butlerfield Industrial Estate
 Bonnyrigg
 Edinburgh
 Postal code EH19 3JQ
 Telephone: +44 (0) 18758 22222
 Fax +44 (0) 18758 22229
 E-mail andy@drydenaqua.com (Andrew Pooley)
 Office hours Monday-Thursday 0600-1500, Friday 0600-1200.
 Supplier
 Company Identification Dryden Aqua Ltd
 Address of Supplier Butlerfield Industrial Estate
 Bonnyrigg
 Edinburgh
 Postal code EH19 3JQ
 Telephone: +44 (0) 18758 22222
 Fax +44 (0) 18758 22229
 E-mail andy@drydenaqua.com (Andrew Pooley)
 Office hours Monday-Thursday 0600-1500, Friday 0600-1200.

1.4 Emergency telephone number

Emergency Phone No. +44 (0) 1978 528459 24 hour
 Language English
 National response centre
 Address NHS Direct
 Emergency Phone No. +44 111

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP) Ox. Sol. 2 :May intensify fire; oxidiser.
 Met. Corr. 1 :May be corrosive to metals.
 Acute Tox. 4 :Harmful in contact with skin.
 Skin Corr. 1B :Causes severe skin burns and eye damage.

STOT SE 3 :May cause respiratory irritation.
 Aquatic Chronic 2 :Toxic to aquatic life with long lasting effects.

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

Product Name

Dryox

Hazard Pictogram(s)



GHS03



GHS05



GHS07



GHS09

Signal Word(s)

Danger

Hazard Statement(s)

H272: May intensify fire; oxidiser.
 H290: May be corrosive to metals.
 H312: Harmful in contact with skin.
 H314: Causes severe skin burns and eye damage.
 H335: May cause respiratory irritation.
 H411: Toxic to aquatic life with long lasting effects.
 EUH032: Contact with acids liberates very toxic gas.

Precautionary Statement(s)

P102: Keep out of reach of children.
 P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P221: Take any precaution to avoid mixing with combustibles: .
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with 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.
 P312: Call a POISON CENTER/doctor if you feel unwell.

2.3 Other hazards

None known.

2.4 Additional Information

For full text of H/P Statements see section 16.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable.

3.2 Mixtures

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / REACH Registration No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
sodium hydrogensulphate	7681-38-1	231-665-7 01-2119552465-36-0000	40-45%	Eye Dam. 1 H318	GHS05
calcium chloride	10043-52-4	233-140-8 01-2119494219-28-XXXX	10-13%	Eye Irrit. 2 H319	GHS07
troclosene sodium	2893-78-9	220-767-7 01-2119489371-33-0000	10-13%	Acute Tox. 4 H302 Eye Irrit. 2 H319 STOT SE 3 H335 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	GHS07 GHS09
sodium chlorite	7758-19-2	231-836-6 01-2119529240-51-XXXX	8.95-9.95%	Ox. Sol. 2 H272 Acute Tox. 3 H301 Acute Tox. 2 H310 Skin Corr. 1B H314 Acute Tox. 2 H330 Aquatic Acute 1 H400	GHS03 GHS06 GHS05 GHS09
Aluminum chloride hydroxide sulfate	39290-78-3	254-400-7 01-2119531540-51	5.5-6.5	Met. Corr. 1 H290 Eye Irrit. 2 H319	GHS05 GHS07

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
Skin Contact	Take off contaminated clothing and wash it before reuse. Specific treatment (see Medical Advice on this label). Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER/doctor.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
Ingestion	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

4.2 Most important symptoms and effects, both acute and delayed

Causes burns.

4.3 Indication of any immediate medical attention and special treatment needed

Specific treatment (see Medical Advice on this label). Immediately call a POISON CENTER/doctor. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media Use water spray, dry powder or carbon dioxide to extinguish.
 Unsuitable extinguishing media None.

5.2 Special hazards arising from the substance or mixture

May intensify fire; oxidiser. May decompose in a fire, giving off toxic and irritant vapours.

5.3 Advice for firefighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid dust generation. Do not breathe dust. Wear appropriate personal protective equipment, avoid direct contact.

6.2 Environmental precautions

Avoid release to the environment. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Sweep up spilled substance and remove to safe place. Use vacuum equipment for collecting spilt materials, where practicable. Contain spillages with sand, earth or any suitable adsorbent material. Earth may be shovelled to contain spillage and to avoid contamination of sewers and watercourses.

6.4 Reference to other sections

See Also Section 8, 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep/Store away from clothing/combustible materials. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands and exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Keep only in original packaging.

7.2 Conditions for safe storage, including any incompatibilities

Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store in a corrosion-resistant container with a resistant inner liner.

Storage temperature

Ambient.

Storage life

Stable under normal conditions.

Incompatible materials

None known.

7.3 Specific end use(s)

Not known.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits No Occupational Exposure Limit assigned.

8.2 Exposure controls

8.2.1. Appropriate engineering controls Provide adequate ventilation, including appropriate local extraction. A washing facility/water for eye and skin cleaning purposes should be present.

8.2.2. Personal protection equipment



Eye Protection Wear eye protection with side protection (EN166).



Skin protection Wear protective clothing and gloves: Impervious gloves (EN 374).



Respiratory protection A suitable dust mask or dust respirator with filter type P (EN143 or EN405) may be appropriate.



Thermal hazards None known.

8.2.3. Environmental Exposure Controls Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Solid. Colour : Off-white
Odour	chlorine
Odour threshold	Not known.
pH	Not known.
Melting point/freezing point	Not known.
Initial boiling point and boiling range	Not applicable.
Flash Point	Not applicable.
Evaporation rate	Not known.
Flammability (solid, gas)	Not known.
Upper/lower flammability or explosive limits	Not known.
Vapour pressure	Not known.
Vapour density	Not known.
Density (g/ml)	Not known.
Relative density	1.5-1.7g/cm ³ (20° C)
Solubility(ies)	Solubility (Water) : Miscible Solubility (Other) : Not known.
Partition coefficient: n-octanol/water	Not known.
Auto-ignition temperature	Not known.
Decomposition Temperature (° C)	Considered stable under normal conditions.
Viscosity	Not known.
Explosive properties	Not explosive
Oxidising properties	Oxidising

9.2 Other information

None.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

None anticipated.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

May intensify fire; oxidiser. May react with combustible substances creating fire or explosion hazard.

10.4 Conditions to avoid

Incompatible materials

10.5 Incompatible materials

Incompatible materials Keep away from combustible material.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity - Ingestion	Not classified.
Acute toxicity - Skin Contact	Self classification: Harmful in contact with skin.
Acute toxicity - Inhalation	Not classified.
Skin corrosion/irritation	Self classification: Causes severe skin burns and eye damage.
Serious eye damage/irritation	Not classified.
Skin sensitization data	Not classified.
Respiratory sensitization data	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified.
Reproductive toxicity	Not classified.
Lactation	Not classified.
STOT - single exposure	Self classification: May cause respiratory irritation.
STOT - repeated exposure	Not classified.
Aspiration hazard	Not classified.

11.2 Other information

Not known.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Toxicity - Aquatic invertebrates	Not known.
Toxicity - Fish	Not known.
Toxicity - Algae	Not known.
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.

12.2 Persistence and Degradation

The product is not biodegradable.

12.3 Bioaccumulative potential

Low bioaccumulation potential.

12.4 Mobility in soil

Not known.

12.5 Results of PBT and vPvB assessment

Not known.

12.6 Other adverse effects

Not known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of contents in accordance with local, state or national legislation. Send to a licensed recycler, reclaimer or incinerator. Dispose of this material and its container to hazardous or special waste collection point. Normal disposal is via incineration operated by an accredited disposal contractor.

13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

UN No. 1479

14.2 UN proper shipping name

UN proper shipping name OXIDIZING SOLID, N.O.S.

14.3 Transport hazard class(es)

ADR/RID

ADR/RID Class 5.1

ADR Classification Code O2

Special Provisions 274

Limited Quantities 1 kg

Excepted Quantities E2

Emergency Action Code 1Y

Mixed Packing Instructions for Packages P002 IBC08

Special Packing Provisions for Packages B4

Mixed Packing Instructions for Packages MP2

Packing Instructions for Portable Tanks T3

Special Provisions for Portable Tanks TP33

Tank Code for Tanks SGAN

Special Provisions for Tanks TU3

Vehicle for Tank Carriage AT

ADR Transport Category 2

Tunnel Restriction Code E

Special Provisions for Carriage - Packages	V11
Special Provisions for Carriage - Bulk	
Special Provisions for Carriage - Loading, Unloading and Handling	CV24
Special Provisions for Carriage - Operation	
ADR HIN	50
IMDG	
IMDG Class	5.1
Special Provisions	274
Limited Quantities	1 kg
Excepted Quantities	E2
Mixed Packing Instructions for Packages	P002 IBC08
Special Packing Provisions for Packages	B4 B21
Packing Instructions for Portable Tanks	T3
Special Provisions for Portable Tanks	TP33
IMDG EMS	F-A, S-Q
Stowage and Handling	Category B
Segregation	SG38 SG49 SG60 SG61
Marine Pollutant	
ICAO/IATA	
IATA Proper Shipping Name	OXIDIZING SOLID, N.O.S.
Excepted Quantities	E2
Passenger and Cargo Aircraft Limited Quantities Packing Instructions	Y544
Passenger and Cargo Aircraft Limited Quantities Max net Qty	2.5Kg
Passenger and Cargo Aircraft Packing Instructions	558
Passenger and Cargo Aircraft Max net Qty	5Kg
Cargo Aircraft Packing Instructions	562
Cargo Aircraft Max net Qty	25Kg
Special Provisions	A3, A803
Emergency Response Guidebook (ERG) Code	5L
Labels	
Labels	5.1



14.4 Packing group

Packing group II

14.5 Environmental hazards

Environmental hazards Classified as a Marine Pollutant.

14.6 Special precautions for user

Special precautions for user Not known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not anticipated to be transported in bulk.

SECTION 15: REGULATORY INFORMATION

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

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation Not listed

REACH: ANNEX XIV list of substances subject to authorisation Not listed

REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Not listed

Community Rolling Action Plan (CoRAP) Not listed

Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants Not listed

Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer Not listed

Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals Not listed

National regulations

Other Not known.

15.2 Chemical Safety Assessment

A REACH chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

Hazard Pictogram(s)



GHS03



GHS05



GHS07



GHS09

GHS06: GHS: Skull and crossbones

Hazard classification

Ox. Sol. 2 : Oxidising solid, Category 2

Met. Corr. 1 : Substance or mixture corrosive to metals, Category 1
 Acute Tox. 3 : Acute toxicity, Category 3
 Acute Tox. 4 : Acute toxicity, Category 4
 Acute Tox. 2 : Acute toxicity, Category 2
 Acute Tox. 4 : Acute toxicity, Category 4
 Skin Corr. 1B : Skin corrosion/irritation, Category 1B
 Eye Dam. 1 : Serious eye damage/irritation, Category 1
 Eye Irrit. 2 : Serious eye damage/irritation, Category 2
 Acute Tox. 2 : Acute toxicity, Category 2
 STOT SE 3_H335 : Specific target organ toxicity — single exposure, Category 3
 Aquatic Acute 1 : Hazardous to the aquatic environment, Acute, Category 1
 Aquatic Chronic 1 : Hazardous to the aquatic environment, Chronic, Category 1
 Aquatic Chronic 2 : Hazardous to the aquatic environment, Chronic, Category 2

Hazard Statement(s)

H272: May intensify fire; oxidiser.
 H290: May be corrosive to metals.
 H301: Toxic if swallowed.
 H302: Harmful if swallowed.
 H310: Fatal in contact with skin.
 H312: Harmful in contact with skin.
 H314: Causes severe skin burns and eye damage.
 H318: Causes serious eye damage.
 H319: Causes serious eye irritation.
 H330: Fatal if inhaled.
 H335: May cause respiratory irritation.
 H400: Very toxic to aquatic life.
 H410: Very toxic to aquatic life with long lasting effects.
 H411: Toxic to aquatic life with long lasting effects.
 EUH032: Contact with acids liberates very toxic gas.

Precautionary Statement(s)

P102: Keep out of reach of children.
 P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P220: Keep/Store away from clothing/combustible materials.
 P221: Take any precaution to avoid mixing with combustibles: .
 P234: Keep only in original packaging.
 P260: Do not breathe dust/fume/gas/mist/vapours/spray.
 P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264: Wash hands and exposed skin thoroughly after handling.
 P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

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

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

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

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.

P312: Call a POISON CENTER/doctor if you feel unwell.

P321: Specific treatment (see Medical Advice on this label).

P362+P364: Take off contaminated clothing and wash it before reuse.

P363: Wash contaminated clothing before reuse.

P370+P378: In case of fire: Use water spray, dry powder or carbon dioxide to extinguish.

P390: Absorb spillage to prevent material damage.

P391: Collect spillage.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

P406: Store in a corrosion-resistant container with a resistant inner liner.

P501: Dispose of contents in accordance with local, state or national legislation.

ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS : Chemical Abstracts Service

CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

DNEL : Derived No Effect Level

EC : European Community

EINECS : European Inventory of Existing Commercial Chemical Substances

IATA : International Air Transport Association

IBC : Intermediate Bulk Container

ICAO : International Civil Aviation Organization

IMDG : International Maritime Dangerous Goods

LTEL : Long term exposure limit

PBT : Persistent, Bioaccumulative and Toxic

PNEC : Predicted No Effect Concentration

REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals

RID : Regulations concerning the International Carriage of Dangerous Goods by Rail

STEL : Short term exposure limit

STOT : Specific Target Organ Toxicity

UN : United Nations

Acronyms

vPvB : very Persistent and very Bioaccumulative

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