

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 08/01/2021 Revision date: 24/09/2024 Supersedes version of: 18/08/2023 Version: 4.0

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

1.1. Product identifier

Product form Product name UFI	: Mixture : POD CLO2 ACTIVATOR SOLUTION : TX90-10RJ-D00C-TQ47
1.2. Relevant identified uses of the sul	bstance or mixture and uses advised against
Relevant identified uses	
Main use category	: Professional use

Main use category Industrial/Professional use spec Use of the substance/mixture

Uses advised against

Restrictions on use

: Uses other than the intended use of the product.

: To be used with POD CLO2 Base Solution.

: For professional use only

1.3. Details of the supplier of the safety data sheet

Manufacturer	
Tristel Solutions Limited	
Unit 1B, Lynx Business Park	
Fordham Road, Newmarket	
Cambridgeshire	
CB8 7NY	
United Kingdom	
T +44 (0) 1638 721500	
SDS@tristel.com	
1.4. Emergency telephone number	

Country/Area	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA	0344 892 0111	Only for healthcare professionals
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre	16/17 Framlington Place Newcastle-upon-Tyne NE2 4AB	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	Only for healthcare professionals

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SECTION 2: Hazards identificatio	n
2.1. Classification of the substance o	r mixture
Classification according to Regulation (EC	C) No. 1272/2008 [CLP]
Acute toxicity (oral), Category 4	H302
Acute toxicity (dermal), Category 4	H312
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category	1 H318
Hazardous to the aquatic environment – Chro Category 3	onic Hazard, H412
Full text of H- and EUH-statements: see sect	ion 16
Adverse physicochemical, human health a	and environmental effects
Harmful in contact with skin. Harmful if swallc iffects.	owed. Causes skin irritation. Causes serious eye damage. Harmful to aquatic life with long lasting
2.2. Label elements	
abelling according to Regulation (EC) No). 1272/2008 [CLP]
lazard pictograms (CLP)	
	GHS05 GHS07
Signal word (CLP)	: Danger
Contains	: 1-DECANAMINE, N, N-DIMETHYL-N-OXIDE; SODIUM CHLORITE 100%
Hazard statements (CLP)	 H302+H312 - Harmful if swallowed or in contact with skin. H315 - Causes skin irritation.
	H318 - Causes serious eye damage.
	H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (CLP)	 P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell. P302+P352 - IF ON SKIN: Wash with plenty of 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. P332+P313 - If skin irritation occurs: Get medical advice/attention.

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1-DECANAMINE,N,N-DIMETHYL-N-OXIDE	CAS-No.: 2605-79-0 EC-No.: 220-020-5	≥5-<10	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 2, H411

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
SODIUM CHLORITE 100%	CAS-No.: 7758-19-2 EC-No.: 231-836-6 REACH-no: 01-21195229240- 51	≥1-<5	Ox. Sol. 1, H271 Acute Tox. 3 (Oral), H301 (ATE=100 mg/kg bodyweight) Acute Tox. 2 (Dermal), H310 (ATE=50 mg/kg bodyweight) Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 3, H412 EUH032

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general First-aid measures after inhalation First-aid measures after skin contact	 Call a poison center or a doctor if you feel unwell. Remove person to fresh air and keep comfortable for breathing. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact First-aid measures after ingestion	 Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. Rinse mouth. Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and effe	ects, both acute and delayed
Symptoms/effects after inhalation Symptoms/effects after skin contact Symptoms/effects after eye contact Symptoms/effects after ingestion	 May cause respiratory irritation. Irritation. Serious damage to eyes. Harmful if swallowed.
4.3. Indication of any immediate medica	al attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures				
5.1. Extinguishing media				
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.			
5.2. Special hazards arising from the substance or mixture				
Hazardous decomposition products in case of fire	: Toxic fumes may be released.			
5.3. Advice for firefighters				
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.			

SECTION 6: Accidental release measures			
6.1. Personal precautions, protective equipment and emergency procedures			
For non-emergency personnel			
Emergency procedures	: Ventilate spillage area. Avoid contact with skin, eyes and clothing.		

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For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and material for contain	nment and cleaning up
Methods for cleaning up Other information	Take up liquid spill into absorbent material.Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	
For further information refer to section 13	as Section 8

For further information refer to section 13. See Section 8.

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	: Ensure good ventilation of the work station. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment.
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, including	any incompatibilities
Storage conditions	: Store in a well-ventilated place. Keep cool.
Storage temperature	: 10 – 35 °C
Storage area	: Store in a well-ventilated place.
Special rules on packaging	: Keep only in original container.

7.3. Specific end use(s)

To be used with POD CLO2 Base Solution. For professional use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment symbol(s):



Eye and face protection

Eye protection: Safety glasses (EN 166)

Skin protection

Skin and body protection: Wear suitable protective clothing

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Hand protection:

Protective gloves against chemicals (EN 374)

Hand protection					
Type Material Permeation Thickness (mm) Breakthrough Time Standard					
Disposable gloves	Nitrile rubber (NBR)	2 (> 30 minutes)	0.10	>480 minutes	EN ISO 374-1

Respiratory protection

Respiratory protection:

Ensure there is sufficient ventilation of the area during use.

SECTION 9: Physical and chemical properties

Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Physical state Colour Odour Odour threshold Melting point Freezing point Boiling point Flammability Lower explosion limit Upper explosion limit Upper explosion limit Flash point Auto-ignition temperature Decomposition temperature pH Viscosity, kinematic Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density Relative vapour density at 20°C	nical pro	operties
Odour Odour threshold Melting point Freezing point Boiling point Flammability Lower explosion limit Upper explosion limit Flash point Auto-ignition temperature Decomposition temperature pH Viscosity, kinematic Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density	: Liquid	1
Odour threshold Melting point Freezing point Boiling point Flammability Lower explosion limit Upper explosion limit Flash point Auto-ignition temperature Decomposition temperature pH Viscosity, kinematic Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density	: Colou	irless.
Melting point Freezing point Boiling point Flammability Lower explosion limit Upper explosion limit Flash point Auto-ignition temperature Decomposition temperature pH Viscosity, kinematic Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density	: chara	cteristic.
Freezing point Boiling point Flammability Lower explosion limit Upper explosion limit Flash point Auto-ignition temperature Decomposition temperature pH Viscosity, kinematic Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density	: Not a	vailable
Boiling point Flammability Lower explosion limit Upper explosion limit Flash point Auto-ignition temperature Decomposition temperature pH Viscosity, kinematic Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density	: Not a	vailable
Flammability Lower explosion limit Upper explosion limit Flash point Auto-ignition temperature Decomposition temperature pH Viscosity, kinematic Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density	: Not a	vailable
Lower explosion limit Upper explosion limit Flash point Auto-ignition temperature Decomposition temperature pH Viscosity, kinematic Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density	: Not a	vailable
Upper explosion limit Flash point Auto-ignition temperature Decomposition temperature pH Viscosity, kinematic Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density	: Non fl	lammable.
Flash point Auto-ignition temperature Decomposition temperature pH Viscosity, kinematic Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density	: Not a	vailable
Auto-ignition temperature Decomposition temperature pH Viscosity, kinematic Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density	: Not a	vailable
Decomposition temperature pH Viscosity, kinematic Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density	: Not a	vailable
pH Viscosity, kinematic Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density	: Not a	vailable
Viscosity, kinematic Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density	: Not a	vailable
Solubility Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density	: Not a	vailable
Partition coefficient n-octanol/water (Log Kow) Vapour pressure Vapour pressure at 50°C Density Relative density	: Not a	vailable
Vapour pressure Vapour pressure at 50°C Density Relative density	: Not a	vailable
Vapour pressure at 50°C Density Relative density	: Not a	vailable
Density Relative density	: Not a	vailable
Relative density	: Not a	vailable
-	: Not a	vailable
Relative vapour density at 20°C	: Not a	vailable
	: Not a	vailable
Particle characteristics	: Not a	pplicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazar	d classes as defined in Regulation (EC) No 1272/2008
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Acute toxicity (oral) Acute toxicity (dermal) Acute toxicity (inhalation)	:	Harmful if swallowed. Harmful in contact with skin. Not classified
POD CLO2 ACTIVATOR SOLUTION		
ATE CLP (oral)		1788.909 mg/kg bodyweight
ATE CLP (dermal)		1253.133 mg/kg bodyweight
Skin corrosion/irritation	:	Causes skin irritation.
Serious eye damage/irritation	:	Causes serious eye damage.
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
STOT-single exposure	:	Not classified
STOT-repeated exposure	:	Not classified
SODIUM CHLORITE 100% (7758-19-2)		
STOT-repeated exposure		May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	:	Not classified
11.2. Information on other hazards		

No additional information available

SECTION 12: Ecological information			
12.1. Toxicity			
Hazardous to the aquatic environment, short-term : (acute)	Harmful to aquatic life with long lasting effects. Not classified Harmful to aquatic life with long lasting effects.		
1-DECANAMINE,N,N-DIMETHYL-N-OXIDE (2605-79-0)			
LC50 - Fish [1]	2.67 mg/l		
SODIUM CHLORITE 100% (7758-19-2)			
LC50 - Fish [1]	265 – 310 mg/l		
EC50 - Other aquatic organisms [1]	0.29 mg/l		

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12.2. Persistence and degradability		
POD CLO2 ACTIVATOR SOLUTION		
Persistence and degradability	Not rapidly degradable	
1-DECANAMINE,N,N-DIMETHYL-N-OXIDE (2605-79-0)		
Persistence and degradability	Not rapidly degradable	
SODIUM CHLORITE 100% (7758-19-2)		
Persistence and degradability	Not rapidly degradable	
12.3. Bioaccumulative potential		
No additional information available		
12.4. Mobility in soil		
No additional information available		
12.5. Results of PBT and vPvB assessment		
No additional information available		
12.6. Endocrine disrupting properties		
No additional information available		
12.7. Other adverse effects		
No additional information available		

SECTION 13: Disposal consideration	S
13.1. Waste treatment methods	
Waste treatment methods Sewage disposal recommendations Product/Packaging disposal recommendations HP Code	 Dispose of contents/container in accordance with licensed collector's sorting instructions. Disposal must be done according to official regulations. Disposal must be done according to official regulations. HP2 - "Oxidising:" waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials. HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure. HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye. HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID ADR IMDG ΙΑΤΑ ADN RID 14.1. UN number or ID number Not applicable Not applicable Not applicable Not applicable Not applicable 14.2. UN proper shipping name Not applicable Not applicable Not applicable Not applicable Not applicable 14.3. Transport hazard class(es) Not applicable Not applicable Not applicable Not applicable Not applicable

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ADR	IMDG	ΙΑΤΑ	ADN	RID
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental haz	ards			
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary informatio	n available			

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea Not applicable

Air transport Not applicable

Inland waterway transport Not applicable

Rail transport Not applicable

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

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

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Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acr	onyms:		
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		
ATE	Acute Toxicity Estimate		
BCF	Bioconcentration factor		
BLV	Biological limit value		
BOD	Biochemical oxygen demand (BOD)		
COD	Chemical oxygen demand (COD)		
DMEL	Derived Minimal Effect level		
DNEL	Derived-No Effect Level		
EC-No.	European Community number		
EC50	Median effective concentration		
EN	European Standard		
IARC	International Agency for Research on Cancer		
ΙΑΤΑ	International Air Transport Association		
IMDG	International Maritime Dangerous Goods		
LC50	Median lethal concentration		
LD50	Median lethal dose		
LOAEL	Lowest Observed Adverse Effect Level		
NOAEC	No-Observed Adverse Effect Concentration		
NOAEL	No-Observed Adverse Effect Level		
NOEC	No-Observed Effect Concentration		
OECD	Organisation for Economic Co-operation and Development		
OEL	Occupational Exposure Limit		
РВТ	Persistent Bioaccumulative Toxic		
PNEC	Predicted No-Effect Concentration		
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail		
SDS	Safety Data Sheet		
STP	Sewage treatment plant		
ThOD	Theoretical oxygen demand (ThOD)		
TLM	Median Tolerance Limit		
VOC	Volatile Organic Compounds		
CAS-No.	Chemical Abstract Service number		

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Abbreviations and acronyms:			
N.O.S.	Not Otherwise Specified		
vPvB	Very Persistent and Very Bioaccumulative		
ED	Endocrine disruptor		

Full text of H- and EU	H-statements:
Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
EUH032	Contact with acids liberates very toxic gas.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H271	May cause fire or explosion; strong oxidiser.
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.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Ox. Sol. 1	Oxidising Solids, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

The classification complies with

: ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



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

1.1. Product identifier

Product form	: Mixture
Product name	: POD CLO2 BASE SOLUTION
UFI	: RNA0-308Q-U00A-3ESR
1.2. Relevant identified uses of the subs	tance or mixture and uses advised agains
Relevant identified uses	
Main use category	: Professional use
Industrial/Professional use spec	: For professional use only

Use of the substance/mixture

Uses advised against

Restrictions on use

: Uses other than the intended use of the product.

: To be used with POD CLO2 Activator Solution.

1.3. Details of the supplier of the safety data sheet

Manufacturer
Tristel Solutions Limited
Unit 1B, Lynx Business Park
Fordham Road, Newmarket
Cambridgeshire
CB8 7NY
United Kingdom
T +44 (0) 1638 721500
<u>SDS@tristel.com</u>
1.4. Emergency telephone number

Country/Area	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA	0344 892 0111	Only for healthcare professionals
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre	16/17 Framlington Place Newcastle-upon-Tyne NE2 4AB	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	Only for healthcare professionals

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SECTION 2: Hazards identification				
2.1. Classification of the substance or mixture				
Classification according to Regulation (EC) No	. 1272/2008 [CLP]			
Serious eye damage/eye irritation, Category 1 Hazardous to the aquatic environment – Chronic H Category 3 Full text of H- and EUH-statements: see section 16				
Adverse physicochemical, human health and e	nvironmental effects			
Causes serious eye damage. Harmful to aquatic li	ie with long lasting effects.			
2.2. Label elements				
Labelling according to Regulation (EC) No. 127	2/2008 [CLP]			
Hazard pictograms (CLP)	GHS05			
Signal word (CLP)	: Danger			
Contains	: 1-DECANAMINE,N,N-DIMETHYL-N-OXIDE			
Hazard statements (CLP)	 H318 - Causes serious eye damage. H412 - Harmful to aquatic life with long lasting effects. 			
Precautionary statements (CLP)	 P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 			

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
CITRIC ACID MONOHYDRATE	CAS-No.: 5949-29-1 REACH-no: 01-2119457026- 42	≥ 10 – < 20	Eye Irrit. 2, H319 STOT SE 3, H335
1-DECANAMINE,N,N-DIMETHYL-N-OXIDE	CAS-No.: 2605-79-0 EC-No.: 220-020-5	≥ 5 – < 10	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 2, H411

Full text of H- and EUH-statements: see section 16

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures after inhalation First-aid measures after skin contact First-aid measures after eye contact	 Remove person to fresh air and keep comfortable for breathing. Wash skin with plenty of water. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion 4.2. Most important symptoms and effect	: Call a poison center or a doctor if you feel unwell.
Symptoms/effects after inhalation Symptoms/effects after skin contact Symptoms/effects after eye contact Symptoms/effects after ingestion	 May cause respiratory irritation. Slight irritation. Serious damage to eyes. May cause irritation to the digestive tract.

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

Treat symptomatically.

SECTION 5: Firefighting measures				
5.1. Extinguishing media				
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.			
5.2. Special hazards arising from the substance or mixture				
Hazardous decomposition products in case of fire	: Toxic fumes may be released.			
5.3. Advice for firefighters				
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.			

SECTION 6: Accidental release measures			
6.1. Personal precautions, protective	6.1. Personal precautions, protective equipment and emergency procedures		
For non-emergency personnel			
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes.		
For emergency responders			
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".		
6.2. Environmental precautions			
Avoid release to the environment.			

6.3. Methods and material for containing Methods for cleaning up Other information	 nent and cleaning up Take up liquid spill into absorbent material. Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	

For further information refer to section 13. See Section 8.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 7: Handling and storage				
7.1. Precautions for safe handling				
Precautions for safe handling	 Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. 			
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.			
7.2. Conditions for safe storage, including any incompatibilities				
Storage conditions	: Store in a well-ventilated place. Keep cool.			
Storage temperature	: 10 – 35 °C			
Storage area	: Store in a well-ventilated place.			
Special rules on packaging	: Keep only in original container.			
7.3. Specific end use(s)				

To be used with POD CLO2 Activator Solution. For professional use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment symbol(s):



Eye and face protection

Eye protection: Safety glasses (EN 166)

Skin protection

Skin and body protection: Wear suitable protective clothing

Hand protection:

Protective gloves against chemicals (EN 374)

Hand protection					
Туре	Material	Permeation	Thickness (mm)	Breakthrough Time	Standard
Disposable gloves	Nitrile rubber (NBR)	2 (> 30 minutes)	0.10	>480 minutes	EN ISO 374-1

Respiratory protection

Respiratory protection:

Ensure there is sufficient ventilation of the area during use.

Environmental exposure controls

Environmental exposure controls: Avoid release to the environment.

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SECTION 9: Physical and chemical properties		
9.1. Information on basic physical and	chemical properties	
Physical state	: Liquid	
Colour	: Not available	
Odour	: Not available	
Odour threshold	: Not available	
Melting point	: Not available	
Freezing point	: Not available	
Boiling point	: Not available	
Flammability	: Not applicable	
Lower explosion limit	: Not available	
Upper explosion limit	: Not available	
Flash point	: Not available	
Auto-ignition temperature	: Not available	
Decomposition temperature	: Not available	
pH	: 2.6 – 3	
Viscosity, kinematic	: Not available	
Solubility	: Not available	
Partition coefficient n-octanol/water (Log Kow)	: Not available	
Vapour pressure	: Not available	
Vapour pressure at 50°C	: Not available	
Density	: Not available	
Relative density	: Not available	
Relative vapour density at 20°C	: Not available	
Particle characteristics	: Not applicable	

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information		
11.1. Information on hazard	classes as defined in Regulation (EC) No 1272/2008	
Acute toxicity (oral)	: Not classified	

GB - en

Acute toxicity (dermal)

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CITRIC ACID MONOHYDRATE (5949-29-1)		
LD50 oral rat		11700 mg/kg
LD50 dermal rat		> 2000 mg/kg
Skin corrosion/irritation	:	Not classified pH: 2.6 – 3
Serious eye damage/irritation	:	Causes serious eye damage. pH: 2.6 – 3
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
STOT-single exposure	:	Not classified
CITRIC ACID MONOHYDRATE (5949-29-1)		
STOT-single exposure		May cause respiratory irritation.
STOT-repeated exposure	:	Not classified
Aspiration hazard	:	Not classified

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general : Hazardous to the aquatic environment, short-term : (acute) Hazardous to the aquatic environment, long-term : (chronic)	Harmful to aquatic life with long lasting effects. Not classified Harmful to aquatic life with long lasting effects.
CITRIC ACID MONOHYDRATE (5949-29-1)	
LC50 - Fish [1]	440 – 706 mg/l
1-DECANAMINE,N,N-DIMETHYL-N-OXIDE (26	05-79-0)
LC50 - Fish [1]	2.67 mg/l
12.2. Persistence and degradability	
POD CLO2 BASE SOLUTION	
Persistence and degradability	Not rapidly degradable
CITRIC ACID MONOHYDRATE (5949-29-1)	
Persistence and degradability	Not rapidly degradable
1-DECANAMINE,N,N-DIMETHYL-N-OXIDE (26	05-79-0)
Persistence and degradability	Not rapidly degradable
12.3. Bioaccumulative potential	
No additional information available	
12.4. Mobility in soil	
No additional information available	

No additional information available

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

12.5. Results of PBT and vPvB assessment	
No additional information available	
12.6. Endocrine disrupting properties	
No additional information available	
12.7. Other adverse effects	
No additional information available	
SECTION 13: Disposal considerations	

13.1. Waste treatment methods

Waste treatment methods Sewage disposal recommendations Product/Packaging disposal recommendations HP Code	 Dispose of contents/container in accordance with licensed collector's sorting instructions. Disposal must be done according to official regulations. Disposal must be done according to official regulations. HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye. HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one
	HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one
	or more sectors of the environment

SECTION 14: Transport information

n accordance with ADR / IMI	DG / IATA / ADN / RID				
ADR	IMDG	ΙΑΤΑ	ADN	RID	
14.1. UN number or ID number					
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	
14.2. UN proper shipping name					
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	
14.3. Transport hazard class(es)					
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	
14.4. Packing group					
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	
14.5. Environmental hazards					
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	
No supplementary information	on available	11			

14.6. Special precautions for user

Overland transport Not applicable

Transport by sea Not applicable

Air transport Not applicable

Inland waterway transport Not applicable

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Rail transport

Not applicable

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

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:		
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	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	

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Abbreviations and acr	onyms:
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
ΙΑΤΑ	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
РВТ	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

Full text of H- and EUH-statements:		
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1	
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
H302	Harmful if swallowed.	
H318	Causes serious eye damage.	
H319	Causes serious eye irritation.	
H335	May cause respiratory irritation.	
H400	Very toxic to aquatic life.	
H411	Toxic to aquatic life with long lasting effects.	

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Full text of H- and EUH-statements:	
H412	Harmful to aquatic life with long lasting effects.
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

The classification complies with

: ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 14/01/2021 Revision date: 24/09/2024 Supersedes version of: 18/08/2023 Version: 4.0

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

1.1. Product identifier

Product form Product name

- : Mixture
- : POD CLO2 WORKING SOLUTION

1.2. Relevant identified uses of the substance or mixture and uses advised agains	1.2	2. Relevant ider	ntified uses o	of the substanc	e or mixture and	uses advised agains
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Relevant identified uses

Main use category Industrial/Professional use spec Use of the substance/mixture

- : Professional use
- : For professional use only : Disinfectant

Uses advised against

Restrictions on use

: Uses other than the intended use of the product.

1.3. Details of the supplier of the safety data sheet

 Manufacturer

 Tristel Solutions Limited

 Unit 1B, Lynx Business Park

 Fordham Road, Newmarket

 Cambridgeshire

 CB8 7NY

 United Kingdom

 T +44 (0) 1638 721500

 SDS@tristel.com

 1.4. Emergency telephone number

Country/Area	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA	0344 892 0111	Only for healthcare professionals
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre	16/17 Framlington Place Newcastle-upon-Tyne NE2 4AB	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	Only for healthcare professionals

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SECTION 2: Hazards identification 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements		
Z.Z. Label elements		

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
chlorine dioxide %	CAS-No.: 10049-04-4 EC-No.: 233-162-8 EC Index-No.: 017-026-01-0	< 1	Acute Tox. 3 (Oral), H301 (ATE=93.86 mg/kg bodyweight) Skin Corr. 1B, H314 Aquatic Acute 1, H400 (M=10)

Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
chlorine dioxide %	CAS-No.: 10049-04-4 EC-No.: 233-162-8 EC Index-No.: 017-026-01-0	(0.3 ≤ C < 3) Eye Irrit. 2; H319 (1 ≤ C < 5) Skin Irrit. 2; H315 (3 ≤ C < 5) Eye Dam. 1; H318 (3 ≤ C ≤ 100) STOT SE 3; H335 (5 ≤ C ≤ 100) Skin Corr. 1B; H314

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures after inhalation First-aid measures after skin contact First-aid measures after eye contact First-aid measures after ingestion	 Remove person to fresh air and keep comfortable for breathing. Wash skin with plenty of water. Rinse eyes with water as a precaution. Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and effective eff	ffects, both acute and delayed
Symptoms/effects after inhalation Symptoms/effects after skin contact Symptoms/effects after eye contact	 May cause respiratory irritation. May cause slight irritation. May cause slight irritation.

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Symptoms/effects after ingestion

: May cause irritation to the digestive tract.

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

Treat symptomatically.

SECTION 5: Firefighting measures			
5.1. Extinguishing media			
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.		
5.2. Special hazards arising from the substance or mixture			
Hazardous decomposition products in case of fire	: Toxic fumes may be released.		
5.3. Advice for firefighters			
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.		
SECTION 6: Accidental release measures			

6.1. Personal precautions, protective equipment and emergency procedures		
For non-emergency personnel Emergency procedures	: Ventilate spillage area.	
For emergency responders		
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".	
6.2. Environmental precautions		
Avoid release to the environment.		
6.3. Methods and material for containment and cleaning up		
Methods for cleaning up	: Take up liquid spill into absorbent material.	

: Dispose of materials or solid residues at an authorized site.

6.4. Refe	rence to	o other	sections

Other information

For further information refer to section 13.

SECTION 7: Handling and storage			
7.1. Precautions for safe handling			
0	 Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. 		
7.2. Conditions for safe storage, including any incompatibilities			
Storage conditions	Store in a well-ventilated place. Keep cool.		

7.3. Specific end use(s)

Disinfectant Solution. For professional use only.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 8: Exposure controls/personal protection 8.1. Control parameters National occupational exposure and biological limit values Chlorine dioxide ... % (10049-04-4) United Kingdom - Occupational Exposure Limits Local name Chlorine dioxide WEL TWA (OEL TWA) 0.28 mg/m³ 0.1 ppm 0.1 ppm WEL STEL (OEL STEL) 0.84 mg/m³ 0.3 ppm 0.3 ppm Regulatory reference EH40/2005 (Fourth edition, 2020). HSE

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls: Ensure good ventilation of the work station.

Personal protection equipment

Eye and face protection

Eye protection: Avoid contact with eyes.

Skin protection

Hand protection: Avoid contact with skin.

Respiratory protection

Respiratory protection: Ensure there is sufficient ventilation of the area during use.

Environmental exposure controls

Environmental exposure controls: Avoid release to the environment.

9.1. Information on basic physical and chemical properties

:	Liquid
:	Yellow.
:	characteristic.
:	Not available
:	Not applicable
:	Not available

Safety Data Sheet

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Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008		
Acute toxicity (dermal)	Not classified Not classified Not classified	
chlorine dioxide % (10049-04-4)		
LD50 oral rat	93.86 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EU Method B.1 (Acute Toxicity (Oral)), Remarks on results: other:, 95% CL: 45,52 - 193,53	
LC50 Inhalation - Rat (Vapours)	0.041 mg/l Source: ECHA	
Skin corrosion/irritation :	Not classified	
chlorine dioxide % (10049-04-4)		
рН	< 1	
Serious eye damage/irritation :	Not classified	
chlorine dioxide % (10049-04-4)		
рН	< 1	
Respiratory or skin sensitisation :	Not classified	
Germ cell mutagenicity :	Not classified	
Carcinogenicity :	Not classified	

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general Hazardous to the aquatic environment, short–term (acute) Hazardous to the aquatic environment, long–term (chronic)	:	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. Not classified Not classified
chlorine dioxide % (10049-04-4)		
LC50 - Fish [1]		75 mg/l Test organisms (species): Cyprinodon variegatus
LC50 - Fish [2]		0.021 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]		0.063 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]		1096 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]		0.324 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)		≥ 500 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish		≥ 500 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '36 d'

12.2. Persistence and degradability

POD CLO2 WORKING SOLUTION	
Persistence and degradability	Not rapidly degradable
chlorine dioxide % (10049-04-4)	
Persistence and degradability	Not rapidly degradable
12.3. Bioaccumulative potential	

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations

: Disposal must be done according to official regulations.

Product/Packaging disposal recommendations

: Disposal must be done according to official regulations.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID					
ADR	IMDG	ΙΑΤΑ	ADN	RID	
14.1. UN number or ID number					
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	
14.2. UN proper shipping name					
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	
14.3. Transport hazard class(es)					
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	
14.4. Packing group					
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	
14.5. Environmental hazards					
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	
No supplementary information available					
44.0.0					

14.6. Special precautions for user

Overland transport Not applicable

Transport by sea Not applicable

Air transport

Not applicable

Inland waterway transport Not applicable

Rail transport Not applicable

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

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:		
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	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
EN	European Standard	
IARC	International Agency for Research on Cancer	
ΙΑΤΑ	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:		
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
РВТ	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	
CAS-No.	Chemical Abstract Service number	
N.O.S.	Not Otherwise Specified	
vPvB	Very Persistent and Very Bioaccumulative	
ED	Endocrine disruptor	

Full text of H- and EUH-statements:		
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
H301	Toxic if swallowed.	
H314	Causes severe skin burns and eye damage.	
H315	Causes skin irritation.	
H318	Causes serious eye damage.	
H319	Causes serious eye irritation.	
H335	May cause respiratory irritation.	
H400	Very toxic to aquatic life.	
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	

The classification complies with

: ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.