

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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| according to the REACH Regulation (EC) 1907/200 | 6 amended by Regulation (EU) 2020/878 |
|---|--|
| 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 |
|----------------------------|--|----------------|
|----------------------------|--|----------------|

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

| 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 |
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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

Safety Data Sheet

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

| 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

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

| 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.



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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 |
|---|-----|------------------|----------------|-----------------|------------------|---------------------|
|---|-----|------------------|----------------|-----------------|------------------|---------------------|

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. |

Safety Data Sheet

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

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

| 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

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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)

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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 | |

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| 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.