

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Product name : TRISTEL ULT WORKING SOLUTION

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Disinfectant
Restrictions on use : Uses other than the intended use of the product.

1.4. Supplier's details

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

Distributor

Parker Laboratories Inc.
286
Eldridge Road
Fairfield, New Jersey, 07004
United States
T 1-800-631-8888
parker@parkerlabs.com

1.5. Emergency phone number

Emergency number : If over-exposure occurs call your Poison Center at 1-800-222-1222 or go to poisonhelp.org

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. Label elements

GHS US labeling

No labeling applicable

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

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SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
chlorine dioxide ... %	CAS-No.: 10049-04-4	<1	Acute Tox. 3 (Oral), H301 Skin Corr. 1B, H314 Aquatic Acute 1, H400

Full text of hazard classes and H-statements : see section 16

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general : If you feel unwell, seek medical advice.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Rinse mouth. Get immediate medical advice/attention. Do NOT induce vomiting.

Personal protection for first-aid responders. : First aid workers will be equipped with suitable personal protective equipment.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : May cause slight irritation.

Symptoms/effects after eye contact : May cause slight irritation.

Symptoms/effects after ingestion : May cause irritation to the digestive tract.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
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".
Environmental precautions : Avoid release to the environment.

6.2. Methods and materials for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. 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 incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.
Specific end uses : Disinfectant Foam. For professional use only.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

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USA - ACGIH - Occupational Exposure Limits

Local name	Chlorine dioxide
ACGIH® TLV® C	0.28 mg/m ³ 0.1 ppm
Remark (ACGIH)	TLV® Basis: Resp tract irr; pulm edema
Regulatory reference	ACGIH 2024

USA - OSHA - Occupational Exposure Limits

Local name	Chlorine dioxide
OSHA PEL TWA	0.3 mg/m ³ 0.1 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

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USA - Cal/OSHA - Occupational Exposure Limits	
Local name	Chlorine dioxide
Cal/OSHA PEL (OEL TWA)	0.3 mg/m ³ 0.1 ppm
Cal/OSHA STEL	0.9 mg/m ³ 0.3 ppm
Regulatory reference	California Division of Occupational Safety and Health (Cal/OSHA) - Permissible Exposure Limit for Chemical Contaminants (Table AC-1)
USA - NIOSH - Occupational Exposure Limits	
Local name	Chlorine dioxide
NIOSH REL 10h TWA	0.1 ppm
NIOSH REL STEL	0.3 ppm
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG))
chlorine dioxide ... % (10049-04-4)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Chlorine dioxide
ACGIH® TLV® C	0.1 ppm
Remark (ACGIH)	TLV® Basis: Resp tract irr; pulm edema
Regulatory reference	ACGIH 2024
USA - OSHA - Occupational Exposure Limits	
Local name	Chlorine dioxide
OSHA PEL TWA	0.3 mg/m ³ 0.1 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - Cal/OSHA - Occupational Exposure Limits	
Local name	Chlorine dioxide
Cal/OSHA PEL (OEL TWA)	0.3 mg/m ³ 0.1 ppm
Cal/OSHA STEL	0.9 mg/m ³ 0.3 ppm
Regulatory reference	California Division of Occupational Safety and Health (Cal/OSHA) - Permissible Exposure Limit for Chemical Contaminants (Table AC-1)
USA - NIOSH - Occupational Exposure Limits	
Local name	Chlorine dioxide
NIOSH REL 10h TWA	0.1 ppm
NIOSH REL STEL	0.3 ppm
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG))

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8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Respiratory protection:

Ensure there is sufficient ventilation of the area during use.

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Color	: yellow
Odor	: characteristic
Odor threshold	: No data available
pH	: 2 – 3
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: 100 °C
Flash point	: > 93 °C
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Explosion limits	: No data available
Particle characteristics	: No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

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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 toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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LD50 oral rat	> 2000 mg/kg
chlorine dioxide ... % (10049-04-4)	
LD50 oral rat	93.86 mg/kg body weight 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 (Vapors)	0.041 mg/l Source: ECHA
ATE US (oral)	100 mg/kg body weight
Skin corrosion/irritation	: OECD 404 Slight erythema - Slight irritant pH: 2 – 3
Serious eye damage/irritation	: Not classified pH: 2 – 3
Respiratory or skin sensitization	: Not a skin sensitizer - ISO 10993-10
Germ cell mutagenicity	: Non-Mutagenic - OECD 471
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

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Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: May cause slight irritation.
Symptoms/effects after eye contact	: May cause slight irritation.
Symptoms/effects after ingestion	: May cause irritation to the digestive tract.

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

chlorine dioxide ... % (10049-04-4)

LC50 - Fish [1]	75 mg/l Test organisms (species): Cyprinodon variegatus
EC50 - Crustacea [1]	0.063 mg/l Test organisms (species): Daphnia magna
LC50 - Fish [2]	0.021 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
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

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Persistence and degradability	Biodegradability in water: no data available.
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chlorine dioxide ... % (10049-04-4)

Persistence and degradability	Biodegradability in water: no data available.
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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No

SECTION 13 Disposal considerations

Regional waste regulation	: Disposal must be done according to official regulations.
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.

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Product/Packaging disposal recommendations : Disposal must be done according to official regulations.
Additional information : Do not re-use empty containers.

SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

UN-No. (DOT) : Not applicable
UN-No. (TDG) : Not applicable
UN-No. (IMDG) : Not applicable
UN-No. (IATA) : Not applicable

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (TDG) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not applicable

TDG

Transport hazard class(es) (TDG) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (TDG) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

Not applicable

TDG

Not applicable

IMDG

Not applicable

IATA

Not applicable

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SECTION 15 Regulatory information

15.1. Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
chlorine dioxide ... %	10049-04-4	Not present	-	

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. State regulations

No additional information available

SECTION 16 Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Revision date : 7/16/2025

Issue date : 5/31/2023

Full text of hazard classes and H-statements

H301	Toxic if swallowed
H314	Causes severe skin burns and eye damage
H400	Very toxic to aquatic life

Safety Data Sheet (SDS), USA

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.