RINSE ASSURE ACTIVATOR SOLUTION

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)
Issue date: 13/03/2025 Revision date: 13/03/2025 Version: 1.0

SECTION 1: Identification

1.1 Product identifier

Product name : RINSE ASSURE ACTIVATOR SOLUTION
Product form : Mixture

1.2 Other means of identification

No additional information available

1.3 Recommended use of the chemical and restrictions on use

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

1.4 Details of manufacturer or importer

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
Tristel New Zealand Ltd.
23
Birch Avenue
Tauranga 3110
New Zealand
T +64 (0) 7 5771560

1.5. Emergency phone number

Emergency number : 0800 764 766

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the Environmental Protection Authority notices (EPA Hazardous Substances and New Organisms Act 1996)

Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319

2.2. GHS Label elements, including precautionary statements

GHS NZ labelling

Hazard pictograms (GHS NZ) :

Signal word (GHS NZ) : Warning
Hazard statements (GHS NZ) : H315 - Causes skin irritation
H319 - Causes serious eye irritation
Prevention : P280 - Wear protective gloves/protective clothing/eye protection.
Response : 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.
P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to GHS NZ
SODIUM CHLORITE 100%	CAS-No.: 7758-19-2	1 - 5	Ox. Sol. 1, H271 Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Dermal), H310 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 3, H412

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

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 : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Symptoms caused by exposure

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

4.3. Medical attention and special treatment

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. 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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area.

6.1.2. 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 materials for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

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 any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.
Storage temperature : 10 – 35 °C

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

Exposure limit values for the other components

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

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

8.4. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment : Wear recommended personal protective equipment.
Hand protection : Protective gloves against chemicals (AS/NZS 2161.10:2005)

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	2 (> 30 minutes)	0.1	> 480 minutes	AS/NZS 2161.10:2005

Eye protection : Safety glasses (AS/NZ 1337.1:2010)
Skin and body protection : Wear suitable protective clothing
Respiratory protection : Ensure there is sufficient ventilation of the area during use.

Personal protective equipment symbol(s)

SECTION 9: Physical and chemical properties

Physical state : Liquid

Colour	:	Colourless
Odour	:	Odourless.
Odour threshold	:	No additional information available
pH	:	9.2 – 12.2
Evaporation rate	:	No additional information available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point / Freezing point	:	Melting point: Not applicable
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Flammability	:	Non flammable.
Vapour pressure	:	No additional information available
Relative density	:	No additional information available
Density	:	Relative density: 1.01 – 1.02
Solubility	:	No additional information available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Explosive limits	:	No additional information available
Minimum ignition energy	:	No data available

SECTION 10: Stability and reactivity

Reactivity	:	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reactions known under normal conditions of use.
Conditions to avoid	:	None under recommended storage and handling conditions (see section 7).
Incompatible materials	:	No additional information available
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Toxicity

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified
Skin corrosion/irritation	:	Causes skin irritation. pH: 9.2 – 12.2
Serious eye damage/irritation	:	Causes serious eye irritation.
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified

SODIUM CHLORITE 100% (7758-19-2)	
IARC group	3 - Not classifiable

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

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor 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
Soil toxicity : Not classified
Terrestrial vertebrate toxicity : Not classified
Terrestrial invertebrate toxicity : Not classified

SODIUM CHLORITE 100% (7758-19-2)	
LC50 - Fish [1]	265 – 310 mg/l
EC50 - Other aquatic organisms [1]	0.29 mg/l

12.2. Persistence and degradability

RINSE ASSURE ACTIVATOR SOLUTION	
Persistence and degradability	Biodegradability in water: no data available.

SODIUM CHLORITE 100% (7758-19-2)	
Persistence and degradability	Biodegradability in water: no data available.

12.3. Bioaccumulative potential

RINSE ASSURE ACTIVATOR SOLUTION	
Bioaccumulative potential	No additional information available

12.4. Mobility in soil

RINSE ASSURE ACTIVATOR SOLUTION	
Mobility in soil	No additional information available

12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal considerations

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.
Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
14.1. UN number		
Not applicable	Not applicable	Not applicable
14.2. UN Proper Shipping Name		
Not applicable	Not applicable	Not applicable

IMDG	IATA	UNRTDG
14.3. Transport hazard class(es)		
Not applicable	Not applicable	Not applicable
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Not applicable	Not applicable	Not applicable
No supplementary information available		

14.6. Special precautions for user

Transport by road and rail
Not applicable

Transport by sea
Not applicable

Air transport
Not applicable

14.7. Transport in bulk according to IMO instruments

Not applicable

14.8. Hazchem or Emergency Action Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Issue date : 13/03/2025
Revision date : 13/03/2025

Full text of H-statements	
Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Ox. Sol. 1	Oxidising Solids, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2

Full text of H-statements	
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
H271	May cause fire or explosion; strong oxidiser
H301	Toxic if swallowed
H310	Fatal in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H412	Harmful to aquatic life with long lasting effects

Safety Data Sheet (SDS), New Zealand

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.

RINSE ASSURE BASE SOLUTION

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)
Issue date: 13/03/2025 Revision date: 13/03/2025 Version: 1.0

SECTION 1: Identification

1.1 Product identifier

Product name : RINSE ASSURE BASE SOLUTION
Product form : Mixture

1.2 Other means of identification

No additional information available

1.3 Recommended use of the chemical and restrictions on use

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

1.4 Details of manufacturer or importer

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
Tristel New Zealand Ltd.
23
Birch Avenue
Tauranga 3110
New Zealand
T +64 (0) 7 5771560

1.5. Emergency phone number

Emergency number : 0800 764 766

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the Environmental Protection Authority notices (EPA Hazardous Substances and New Organisms Act 1996)

Skin corrosion/irritation, Category 2 H315

2.2. GHS Label elements, including precautionary statements

GHS NZ labelling

Hazard pictograms (GHS NZ) :

Signal word (GHS NZ) : Warning
Hazard statements (GHS NZ) : H315 - Causes skin irritation
Prevention : P280 - Wear protective gloves/protective clothing.
: P302+P352 - IF ON SKIN: Wash with plenty of water.
Response P332+P313 - If skin irritation occurs: Get medical advice/attention.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to GHS NZ
CITRIC ACID MONOHYDRATE	CAS-No.: 5949-29-1	5 - 10	Eye Irrit. 2, H319 STOT SE 3, H335
SODIUM NITRATE	CAS-No.: 7631-99-4	1 - 5	Ox. Sol. 2, H272 Eye Irrit. 2, H319

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

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. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Symptoms caused by exposure

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

4.3. Medical attention and special treatment

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. 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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

6.1.2. 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 materials for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

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 : 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

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

Exposure limit values for the other components

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

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

8.4. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment : Wear recommended personal protective equipment.

Hand protection : Protective gloves against chemicals (AS/NZS 2161.10:2005)

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	2 (> 30 minutes)	0.1	> 480 minutes	AS/NZS 2161.10:2005

Eye protection : Safety glasses (AS/NZ 1337.1:2010)

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

Personal protective equipment symbol(s)

SECTION 9: Physical and chemical properties

Physical state : Liquid

Colour : Blue

Odour : Odourless.

Odour threshold : No additional information available

pH : 1.5 – 3.5

Evaporation rate : No additional information available

Relative evaporation rate (butylacetate=1) : No data available

Melting point / Freezing point	:	Melting point: Not applicable
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Flammability	:	Non flammable.
Vapour pressure	:	No additional information available
Relative density	:	No additional information available
Density	:	Relative density: 1.04 – 1.07
Solubility	:	No additional information available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Explosive limits	:	No additional information available
Minimum ignition energy	:	No data available

SECTION 10: Stability and reactivity

Reactivity	:	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reactions known under normal conditions of use.
Conditions to avoid	:	None under recommended storage and handling conditions (see section 7).
Incompatible materials	:	No additional information available
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Toxicity

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

CITRIC ACID MONOHYDRATE (5949-29-1)	
LD50 oral rat	11700 mg/kg
LD50 dermal rat	> 2000 mg/kg

SODIUM NITRATE (7631-99-4)	
LD50 oral rat	3430 mg/kg
LD50 dermal rat	> 5000 mg/kg

Skin corrosion/irritation	:	Causes skin irritation. pH: 1.5 – 3.5
Serious eye damage/irritation	:	Not classified
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

CITRIC ACID MONOHYDRATE (5949-29-1)	
Viscosity, kinematic	Not applicable

SODIUM NITRATE (7631-99-4)	
Viscosity, kinematic	Not applicable

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor 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

Soil toxicity : Not classified

Terrestrial vertebrate toxicity : Not classified

Terrestrial invertebrate toxicity : Not classified

CITRIC ACID MONOHYDRATE (5949-29-1)	
LC50 - Fish [1]	440 – 706 mg/l
LD50 dermal rat	> 2000 mg/kg
LD50 oral rat	11700 mg/kg

12.2. Persistence and degradability

RINSE ASSURE BASE SOLUTION	
Persistence and degradability	Biodegradability in water: no data available.

CITRIC ACID MONOHYDRATE (5949-29-1)	
Persistence and degradability	Rapidly degradable
Biodegradation	97 %

SODIUM NITRATE (7631-99-4)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

RINSE ASSURE BASE SOLUTION	
Bioaccumulative potential	No additional information available

12.4. Mobility in soil

RINSE ASSURE BASE SOLUTION	
Mobility in soil	No additional information available

12.5. Other adverse effects

Ozone : Not classified

Other adverse effects : No additional information available

SECTION 13: Disposal considerations

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.

Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
14.1. UN number		
Not applicable	Not applicable	Not applicable
14.2. UN Proper Shipping Name		
Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)		
Not applicable	Not applicable	Not applicable
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Not applicable	Not applicable	Not applicable
No supplementary information available		

14.6. Special precautions for user

Transport by road and rail
Not applicable

Transport by sea
Not applicable

Air transport
Not applicable

14.7. Transport in bulk according to IMO instruments

Not applicable

14.8. Hazchem or Emergency Action Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Issue date : 13/03/2025
Revision date : 13/03/2025

Full text of H-statements	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Ox. Sol. 2	Oxidising Solids, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2

Full text of H-statements	
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H272	May intensify fire; oxidiser
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

Safety Data Sheet (SDS), New Zealand

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.

RINSE ASSURE WORKING SOLUTION

Safety Data Sheet

according to the Hazardous Substance SDS Notice 2017 (EPA)
Issue date: 14/03/2025 Revision date: 14/03/2025 Version: 1.0

SECTION 1: Identification

1.1 Product identifier

Product name : RINSE ASSURE WORKING SOLUTION
Product form : Mixture

1.2 Other means of identification

No additional information available

1.3 Recommended use of the chemical and restrictions on use

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

1.4 Details of manufacturer or importer

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
Tristel New Zealand Ltd.
23 Birch Avenue
Tauranga 3110
New Zealand
T +64 (0) 7 5771560

1.5. Emergency phone number

Emergency number : 0800 764 766

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the Environmental Protection Authority notices (EPA Hazardous Substances and New Organisms Act 1996)

Not classified

2.2. GHS Label elements, including precautionary statements

GHS NZ labelling

No labelling applicable

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

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

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

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 : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Symptoms caused by exposure

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

4.3. Medical attention and special treatment

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. 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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. 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 materials for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

chlorine dioxide … % (10049-04-4)	
New Zealand - Occupational Exposure Limits	
Local name	Chlorine dioxide
WES-TWA (OEL TWA)	0.28 mg/m³
	0.1 ppm
Regulatory reference	Workplace Exposure Standards and Biological Exposure Indices, 14th Edition

Exposure limit values for the other components

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

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

8.4. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment : Wear recommended personal protective equipment.
Hand protection : Avoid contact with skin.
Eye protection : Avoid contact with eyes.
Skin and body protection : Wear suitable protective clothing
Respiratory protection : Ensure there is sufficient ventilation of the area during use.

Personal protective equipment symbol(s)

SECTION 9: Physical and chemical properties

Physical state : Liquid
Colour : Yellow
Odour : Characteristic
Odour threshold : No additional information available
pH : 2.5 – 5.5
Evaporation rate : No additional information available
Relative evaporation rate (butylacetate=1) : No data available
Melting point / Freezing point : Melting point: Not applicable
Boiling point : No data available
Flash point : No data available
Auto-ignition temperature : No data available
Flammability : Non flammable.
Vapour pressure : No additional information available
Relative density : No additional information available
Density : Relative density: 1 – 1.01

Solubility	:	No additional information available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Explosive limits	:	No additional information available
Minimum ignition energy	:	No data available

SECTION 10: Stability and reactivity

Reactivity	:	No additional information available
Chemical stability	:	No additional information available
Possibility of hazardous reactions	:	No additional information available
Conditions to avoid	:	Heat.
Incompatible materials	:	No additional information available
Hazardous decomposition products	:	No additional information available

SECTION 11: Toxicological information

11.1. Toxicity

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	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 pH: 2.5 – 5.5
Serious eye damage/irritation	:	Not classified
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
Aspiration hazard	:	Not classified

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general	:	The product is not considered harmful to aquatic organisms nor 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
Soil toxicity	:	Not classified
Terrestrial vertebrate toxicity	:	Not classified
Terrestrial invertebrate toxicity	:	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)

chlorine dioxide … % (10049-04-4)	
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'
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

12.2. Persistence and degradability

RINSE ASSURE WORKING SOLUTION	
Persistence and degradability	Biodegradability in water: no data available.

chlorine dioxide … % (10049-04-4)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

RINSE ASSURE WORKING SOLUTION	
Bioaccumulative potential	No additional information available

12.4. Mobility in soil

RINSE ASSURE WORKING SOLUTION	
Mobility in soil	No additional information available

12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal considerations

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.
Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
14.1. UN number		
Not applicable	Not applicable	Not applicable
14.2. UN Proper Shipping Name		
Not applicable	Not applicable	Not applicable

IMDG	IATA	UNRTDG
14.3. Transport hazard class(es)		
Not applicable	Not applicable	Not applicable
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Not applicable	Not applicable	Not applicable
No supplementary information available		

14.6. Special precautions for user

Transport by road and rail
Not applicable

Transport by sea
Not applicable

Air transport
Not applicable

14.7. Transport in bulk according to IMO instruments

Not applicable

14.8. Hazchem or Emergency Action Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

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Full text of H-statements	
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H301	Toxic if swallowed
H314	Causes severe skin burns and eye damage
H400	Very toxic to aquatic life

Safety Data Sheet (SDS), New Zealand

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.