

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

1.1. Product identifier

Product name: TRISTEL PUROGENE

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

Use of substance / mixture: Disinfectant solution. For professional use only. Uses advised against: Uses other than the intended use of the product.

1.3. Details of the supplier of the safety data sheet

Company name: Tristel Solutions Limited

Lynx Business Park

Fordham Road

Newmarket

Cambridgeshire

CB8 7NY

United Kingdom

Tel: +44 (0) 1638 721 500

Fax: +44 (0) 1638 721 911

Email: healthandsafety@tristel.com

1.4. Emergency telephone number

Emergency tel: +44 (0) 1638 721500

(office hours only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Acute Tox. 4: H312; Eye Dam. 1: H318; Skin Irrit. 2: H315

Most important adverse effects: Harmful in contact with skin. Causes skin irritation. Causes serious eye damage.

2.2. Label elements

Label elements:

Hazard statements: H312: Harmful in contact with skin.

H315: Causes skin irritation.

H318: Causes serious eye damage.

Hazard pictograms: GHS05: Corrosion

GHS07: Exclamation mark



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Signal words: Danger

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

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.

P312: Call a POISON CENTRE or doctor if you feel unwell.

P332+P313: If skin irritation occurs: Get medical advice/attention.

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

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

SODIUM CHLORITE 100% - REACH registered number(s): 01-21195229240-51-XXXX

EINECS	CAS	PBT / WEL	CLP Classification	Percent
231-836-6	7758-19-2	-	Acute Tox. 3: H301; Ox. Sol. 1: H271; Acute Tox. 2: H310; Skin Corr. 1B: H314; Aquatic Acute 1: H400; Aquatic Chronic 3: H412; Eye Dam. 1: H318; STOT RE 2: H373; -: EUH032	1-10%

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

Ingestion: Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred. May cause permanent damage.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

[cont...]

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Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid. Refer to section 8 of SDS for personal protection details.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS. Refer to section 13 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Avoid the formation or spread of mists in the air. Do not allow to dry out.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

[cont...]

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7.3. Specific end use(s)

Specific end use(s): Disinfectant Solution. For professional use only.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

SODIUM CHLORITE 100%

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	-	0.41mg/m ³	-	-

DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Respiratory protection not required.

Hand protection: Nitrile gloves.

Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Colourless

Odour: Chlorine like

Evaporation rate: No data available.

Oxidising: No data available.

Solubility in water: No data available.

Viscosity: No data available.

Boiling point/range°C: No data available.

Flammability limits %: lower: No data available.

Flash point°C: No data available.

Autoflammability°C: No data available.

Relative density: No data available.

VOC g/l: No data available.

Melting point/range°C: No data available.

upper: No data available.

Part.coeff. n-octanol/water: No data available.

Vapour pressure: No data available.

pH: 8.2-8.5

9.2. Other information

Other information: No data available.

[cont...]

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Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Relevant hazards for product:

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	DRM	Hazardous: calculated
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred. May cause permanent damage.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

[cont...]

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Hazardous ingredients:

SODIUM CHLORITE 100%

Daphnia magna	48H EC50	0.29	mg/l
FISH	96H LC50	265-310	mg/l

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: Not applicable

14.2. UN proper shipping name

Shipping name: NOT CLASSIFIED AS DANGEROUS IN THE MEANING OF TRANSPORT REGULATIONS.

14.3. Transport hazard class(es)

Transport class: Not applicable

14.4. Packing group

Packing group: Not applicable

14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

[cont...]

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14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: Not applicable

Transport category: Not applicable

IMDG seg. group: NOT APPLICABLE

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk: Not applicable

Section 15: Regulatory information

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

Specific regulations: This product has been classified in accordance with CLP regulations and compiled in accordance with Annex II of REACH.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3: EUH032: Contact with acids liberates very toxic gas.

H271: May cause fire or explosion; strong oxidiser.

H301: Toxic 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.

H412: Harmful to aquatic life with long lasting effects.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

SAFETY DATA SHEET
TRISTEL PUROGENE (ACTIVATED WITH ACID)

Page: 1
Compilation date: 26/09/2013
Revision date: 12/05/2015
Revision No: 3

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

1.1. Product identifier

Product name: TRISTEL PUROGENE (ACTIVATED WITH ACID)

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

Use of substance / mixture: 2% Chlorine Dioxide solution. For professional use only. Uses advised against: Uses other than the intended use of the product

1.3. Details of the supplier of the safety data sheet

Company name: Tristel Solutions Limited
Lynx Business Park
Fordham Road
Newmarket
Cambridgeshire
CB8 7NY
United Kingdom
Tel: +44 (0) 1638 721 500
Fax: +44 (0) 1638 721 911
Email: healthandsafety@tristel.com

1.4. Emergency telephone number

Emergency tel: +44 (0) 1638 721 500
(office hours only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Eye Irrit. 2: H319; Skin Irrit. 2: H315

Classification under CHIP: Xi: R36

Most important adverse effects: Causes skin irritation. Causes serious eye irritation.

2.2. Label elements

Label elements under CLP:

Hazard statements: H315: Causes skin irritation.
H319: Causes serious eye irritation.

Signal words: Warning

Hazard pictograms: GHS07: Exclamation mark



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TRISTEL PUROGENE (ACTIVATED WITH ACID)

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Precautionary statements: P280: Wear protective gloves/protective clothing/eye protection.
P302+352: IF ON SKIN: Wash with plenty of soap and water.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+313: If skin irritation occurs: Get medical advice.
P337+313: If eye irritation persists: Get medical advice.

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

CHLORINE DIOXIDE

EINECS	CAS	CHIP Classification	CLP Classification	Percent
233-162-8	10049-04-4	-	Acute Tox. 3: H301; Skin Corr. 1B: H314; Aquatic Acute 1: H400	1-10%

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Wash immediately with plenty of soap and water.
Eye contact: Bathe the eye with running water for 15 minutes. Seek medical attention if eye irritation persists.
Ingestion: Wash out mouth with water. Seek medical attention if irritation or discomfort persists.
Inhalation: Move to fresh air in case of accidental inhalation of vapours.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact: There may be irritation and redness at the site of contact.
Eye contact: There may be irritation and redness. The eyes may water profusely.
Ingestion: There may be soreness and redness of the mouth and throat.
Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

[cont...]

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TRISTEL PUROGENE (ACTIVATED WITH ACID)

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS. Refer to section 13 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed.

7.3. Specific end use(s)

Specific end use(s): 2% Chlorine Dioxide solution. For professional use only.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	0.1ppm	0.3ppm	-	-

DNEL/PNEC Values

DNEL / PNEC No data available.

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TRISTEL PUROGENE (ACTIVATED WITH ACID)

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8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Fogging or spraying activities should be undertaken using a full or half face cartridge facial mask suitable for chlorine dioxide

Hand protection: Protective gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Pale Yellow

Odour: Chlorine like

Evaporation rate: No data available.

Oxidising: No data available.

Solubility in water: No data available.

Viscosity: No data available.

Boiling point/range °C: No data available.

Flammability limits %: lower: No data available.

Flash point °C: No data available.

Autoflammability °C: No data available.

Relative density: No data available.

VOC g/l: No data available.

Melting point/range °C: No data available.

upper: No data available.

Part.coeff. n-octanol/water: No data available.

Vapour pressure: No data available.

pH: No data available.

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

[cont...]

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TRISTEL PUROGENE (ACTIVATED WITH ACID)

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10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

CHLORINE DIOXIDE...100%

ORAL	RAT	LD50	292	mg/kg
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Relevant effects for mixture:

Effect	Route	Basis
Irritation	OPT	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil. Not classified as environmentally hazardous.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

[cont...]

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TRISTEL PUROGENE (ACTIVATED WITH ACID)

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Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: Not applicable

14.2. UN proper shipping name

Shipping name: NOT CLASSIFIED AS DANGEROUS IN THE MEANING OF TRANSPORT REGULATIONS.

14.3. Transport hazard class(es)

Transport class: Not applicable

14.4. Packing group

Packing group: Not applicable

14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: Not applicable

Transport category: Not applicable

IMDG seg. group: NOT APPLICABLE

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk: Not applicable

Section 15: Regulatory information

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

Specific regulations: This product has been classified in accordance with CLP and CHIP regulations and compiled in accordance with Annex II of REACH.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

[cont...]

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Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3: H301: Toxic if swallowed.
H314: Causes severe skin burns and eye damage.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H400: Very toxic to aquatic life.
R36: Irritating to eyes.

Legend to abbreviations: PNEC = predicted no effect level
DNEL = derived no effect level
LD50 = median lethal dose
LC50 = median lethal concentration
EC50 = median effective concentration
IC50 = median inhibitory concentration
dw = dry weight
bw = body weight
cc = closed cup
oc = open cup
MUS = mouse
GPG = guinea pig
RBT = rabbit
HAM = hamster
HMN = human
MAM = mammal
PGN = pigeon
IVN = intravenous
SCU = subcutaneous
SKN = skin
DRM = dermal
OCC = ocular/corneal
PCP = physico-chemical properties

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.