

V-GEN 511

Chlorine Dioxide Precursor

Classified as: Hazardous according to the EPA Hazardous Substances (Minimum Degrees of Hazard) Notice 2017.

SECTION 1: SUBSTANCE AND SUPPLIER DETAILS

Product Name:	V-GEN 511
Supplier:	Visentia Ltd 119 Carbine Road Mt Wellington Auckland 1060 New Zealand
Telephone:	+64 9 216 9824
Recommended Use:	Water Treatment Chemical
In Case of Emergency Contact:	0800 CHEMCALL (243 622)

SECTION 2: HAZARDS IDENTIFICATION

V-GEN 511 is classified as a Dangerous Good for Transport.

V-GEN 511 is classified as hazardous according to criteria in the EPA Hazardous Substances (Minimum Degrees of Hazards) Notice 2017.

Classified under the group standard "Water Treatment Chemicals (Corrosive) Group Standard 2017"

HSNO Approval Number: HSR002681

HSNO Classifications:

- 6.1D – Acutely toxic, dermal
- 6.1D – Acutely toxic, inhalation
- 6.1D – Acutely toxic, oral
- 6.8A – Known or presumed human reproductive or developmental toxicant
- 6.9B – Harmful to human target organs or systems (single exposure and repeated exposure)
- 8.2B – Skin corrosive
- 8.3A – Corrosive to eyes
- 9.1A – Very ecotoxic in the aquatic environment (acute)
- 9.2B – Ecotoxic in the soil environment
- 9.3C – Harmful to terrestrial vertebrates

GHS Classification:

- Acute toxicity dermal – Category 4
- Acute toxicity inhalation – Category 4
- Acute toxicity oral – Category 4



Reproductive toxicity – Category 1
Specific target organ systemic toxicity (single exposure) – Category 2
Specific target organ systemic toxicity (repeated exposure) – Category 2
Skin corrosion/irritation – Category 1B
Serious eye damage/eye irritation - Category 1
Aquatic toxicity, acute - Category 1

Notes: There is no GHS equivalent for ecotoxicity in the soil environment or to terrestrial vertebrates.

Hazard Statements:

H312 – Harmful in contact with skin
H332 – Harmful if inhaled
H302 – Harmful if swallowed
H360 – May damage fertility or the unborn child
H371 – May cause damage to organs via ingestion (Hematopoietic system)
H373 – May cause damage to organs through prolonged or repeated exposure via ingestion
H314 – Causes severe skin burns and eye damage
H318 – Causes serious eye damage
H400 – Very toxic to aquatic life
H422 – Toxic to the soil environment
H433 – Harmful to terrestrial vertebrates

GHS Pictograms:



Signal Word:

DANGER

Prevention Statements:

P102 – Keep out of reach of children.
P201 – Obtain special instructions before use.
P202 – Do not handle until all safety precautions have been read and understood.
P260 – Do not breathe mist/vapours/spray.
P264 – Wash hands, exposed skin, thoroughly after handling.
P270 – Do not eat, drink or smoke when using this product.
P271 – Use only outdoors or in a well-ventilated area.
P273 – Avoid release to the environment.
P280 – Wear protective gloves, protective clothing, eye protection, face protection.



Response Statements:	P301 + P330 + P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P363 – Wash contaminated clothing before re-use. P304 + P340 – IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 – Immediately call a POISON CENTER or doctor/physician. P321 – Specific treatment (see first aid panel on this label). P309 + P311 – If exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. P391 – Collect spillage.
Storage:	P405 – Store locked up.
Disposal:	P501 - In accordance with the EPA Hazardous Substances (Disposal) Notice 2017. Refer to Section 13 of this SDS.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Main Component	CAS Number	Concentration
Sodium chlorite	7758-19-2	10-15%
Water	7732-18-5	Balance

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SECTION 4: FIRST AID MEASURES

Workplace Facilities Required:	Eye wash and safety shower facilities should be provided.
If Inhaled:	Remove to fresh air. Lie patient down and keep warm and at rest. Apply artificial respiration if not breathing. Seek immediate medical attention.
In Contact with Eye:	Hold eyes open, flush with water for at least 15 minutes. Seek immediate medical attention.
In Contact with Skin:	Wash skin with plenty of water, while removing contaminated clothing and shoes. Wash contaminated clothing before re-use. Seek immediate medical attention.
If Swallowed:	DO NOT INDUCE VOMITING. Rinse mouth. Give small quantities of water. Never give anything by mouth to an unconscious person. Seek immediate medical attention. If vomiting occurs, keep head below hips to prevent aspiration to lungs.
Advice to Doctor:	Treat symptomatically. Substance is alkaline and may continue to cause damage several hours after exposure.



SECTION 5: FIRE FIGHTING MEASURES

Fire/Explosion Hazard:	Product is not flammable or combustible.
Suitable Extinguishing Media:	Use water spray or fog, foam, dry chemical powder or carbon dioxide. Remove containers from path of fire if safe to do so. Cool exposed containers with water spray from a safe location.
Precautions in Connection with Fire:	May give off toxic and corrosive fumes in a fire. Fumes may contain hydrogen chloride and metal oxides.
Advice for firefighters:	Wear full firefighting gear and self-contained breathing apparatus. Prevent spills from entering drains and water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

An emergency response plan is required under Part 5 of the Health and Safety at Work (Hazardous Substances) Regulations 2017 when held in quantities greater than 100L.

Precautions:	Clear area of all unprotected personnel. Keep unnecessary and unprotected personnel from entering area. Avoid generating mist/spray. Avoid release to the environment. If spill does enter waterways inform the relevant authority (e.g. Local Council Pollution hotline).
Suitable Protective Equipment:	Emergency responders must use personal protective equipment, including gloves, protective overalls and footwear, safety goggles or face shield and respiratory protection.
Spill or Leak Procedures:	Stop leak if safe to do so. Contain the spill. Spills may be neutralised with a suitable dilute acid. Use inert material such as sand, earth or vermiculite to absorb spill. Collect spilled material and place in a suitable, clean, chemical waste container. Ensure waste container is properly labelled.
Waste Disposal Methods:	Dispose of as per Section 13.
Emergency Preparation:	Ensure there is appropriate and adequate personal protective equipment, trained personnel and clean up materials for management of accidental release.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling:	Avoid contact with skin and eyes. Do not breathe mist/vapour/spray. Use in a well-ventilated area. Do not eat, drink or smoke when using this product. Remove contaminated clothing and wash hands and face before entering eating areas.
Storage:	Keep container tightly closed when not in use. Store in original container in a cool, dry, well-ventilated area. Keep away from food, drink and animal feed. Ensure storage area has suitable secondary containment. Site Signage will be required when quantities exceed 100L.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Workplace Exposure Standards NZ:	No Workplace Exposure Standards have been established for this product.
Engineering Controls:	Eyewash facilities and safety showers should be provided in the work area where there is a risk of exposure to eyes and skin. Use in a well-ventilated area. If natural ventilation is insufficient consider engineering controls such as local exhaust



ventilation to ensure workers are not exposed to levels exceeding the exposure standards.

Personal Protective Equipment:	Avoid contact with the skin and eyes. Avoid inhaling mist/vapours/spray.
Hand protection:	Wear protective gloves that are resistant to the product, e.g. PVC. Gloves should be elbow length. Refer to Australian and New Zealand Standard AS/NZS 2161 for protective gloves.
Skin and body protection:	Use protective overalls and PVC apron. Remove any contaminated clothing to avoid prolonged contact with the skin. Wash work clothes regularly. Refer to Australian and New Zealand Standard AS/NZS 4501 for occupational protective clothing.
Eye protection:	Use chemical safety goggles to protect eyes. When handling bulk quantities where there may be a risk of splashing, a face shield may also be used along with eye protection to protect the face. Refer to AS/NZS 1336 for suitable eye and face protection.
Respiratory protection:	Where there is inadequate ventilation and use results in the formation of mist/vapours/spray, use a respirator. Refer to AS/NZS 1715 and AS/NZS 1716 for suitable respiratory protection. A full-face respirator with chlorine cartridges (for protection against any liberated chlorine gas) is recommended.
Other information:	PPE selected must be impervious to the substance. Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating, drinking or smoking. Handle in accordance with safe industrial hygiene practices.

SECTION 9:

PHYSICAL AND CHEMICAL PROPERTIES

Description:	Liquid	Colour:	Clear
Odour:	Bleach-like odour	Odour Threshold:	Not available
pH (25°C):	11	Solubility (water, 25°C):	Miscible
Melting/Freezing point:	Not available	Boiling Point:	Not available
Flammability:	Non-flammable	Flash Point:	Not applicable
UEL/LEL:	Not applicable	Vapour Pressure (20°C):	Not available
Decomposition Temp:	Not available	Autoignition Temp:	Not available
Relative Density:	>1 (water = 1)	Vapour Density:	Not available
Partition Coefficient:	Not available	Viscosity:	Not available
n-octanol/water			

SECTION 10:

STABILITY AND REACTIVITY

Stability:	Stable under normal cool, dry storage conditions.
Reactivity:	Reacts exothermically with acids. May produce toxic gases on contact with acids.
Conditions to Avoid:	Excessive heat.
Incompatibility:	Incompatible with acids and oxidising agents.
Hazardous Decomposition:	Decomposition may result in formation of hydrogen chloride and metal oxides.



SECTION 11: TOXICOLOGICAL INFORMATION

Acute Exposure

Acute Toxicity:	LD50 oral > 300 - ≤ 2000 mg/kg. LD50 dermal > 1000 - ≤ 2000 mg/kg LC50 inhalation > 1 - ≤ 5 mg/L (dust or mist)
Inhalation:	Harmful if inhaled. May cause lung damage which may occur several hours after an acute exposure.
Ingestion:	Harmful if swallowed. May cause gastrointestinal irritation, nausea and vomiting. May cause local tissue damage to areas of upper digestive tract including localised ulceration and gastrointestinal bleeding.
Skin Contact:	Harmful in contact with skin. Corrosive to skin.
Eye Contact:	Corrosive to eyes.
Sensitiser:	Not expected to be a respiratory or contact sensitiser.

Chronic Exposure

Mutagen, Carcinogen, or Reproductive Toxicant:	Product is a known or presumed reproductive or developmental toxicant.
Specific Target Organ Systemic Toxicity:	Product is harmful to human target organs or systems both from single and repeated exposures. May cause oxidative damage to red blood cells. Toxicity data is based on hazardous ingredient information and information in the EPA Chemical Classification and Identification Database.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:	LC50 < 1 mg/L for crustaceans. LC/EC50 > 100 mg/L for fish, algae. EC50 > 1 but ≤ 10 mg/kg (soil) Product is very toxic to aquatic life, toxic in the soil environment, and harmful to terrestrial vertebrates. Avoid losses to the environment wherever possible.
Persistence/degradability:	Product is rapidly degradable.
Bio-accumulation:	No data.
Mobility:	Product is miscible in water. Ecotoxicity data is based on hazardous ingredient information.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal:	Do not allow product or wash water from cleaning or process equipment to enter drains or waterways. Recycle and reuse wherever possible. Waste product must be treated prior to disposal so it is no longer hazardous. Suitable treatment involves neutralisation with a dilute acid. Dispose of waste product via an approved waste disposal contractor.
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Disposal of Packaging: Packaging may contain product residues and should be treated as hazardous. Where possible return to supplier for reuse/recycling. Dispose of packaging via an approved waste disposal contractor.

SECTION 14: TRANSPORT INFORMATION

V-GEN 511 is classified as a Dangerous Good for transport in accordance with NZS5433:2012, IMDG or IATA.

Hazchem Code: 2X

Hazchem Pictograms:



NZS5433:2012:

UN No: 1908
Proper Shipping Name: Chlorite Solution
Class: 8
Packing Group: II
Environmental hazard: Environmentally hazardous
Limited Quantity: 1L

IMDG:

UN No: 1908
Proper Shipping Name: Chlorite Solution
Class: 8
Packing Group: II
Marine Pollutant: Yes
EmS: F-A, S-B
Limited Quantity: 1L

IATA:

UN No: 1908
Proper Shipping Name: Chlorite Solution
Class: 8
Packing Group: II
Environmental hazard: Environmentally hazardous
ERG Code: 8L
Special Provisions: A3, A803
Cargo Only: Packing Instructions – 855, Maximum Quantity/Pack – 30L
Passenger and Cargo: Packing Instructions – 851, Maximum Quantity/Pack – 1L
Passenger and Cargo Limited Quantity: Packing Instructions – Y840, Maximum Quantity/Pack – 0.5L

Ensure transportation methods prevent leakage from packages and collapsing loads.

**SECTION 15: REGULATORY INFORMATION**

Group Standard Allocation:	Water Treatment Chemicals (Corrosive) Group Standard 2017
HSNO Approval Code:	HSR002681
HSNO Classifications:	6.1D dermal – Acutely toxic 6.1D inhalation – Acutely toxic 6.1D oral – Acutely toxic 6.8A – Known or presumed human reproductive or developmental toxicant 6.9B oral – Harmful to human target organs or systems (single and repeated exposure) 8.2B – Skin corrosive 8.3A – Eye corrosive 9.1A acute – Very ecotoxic in the aquatic environment 9.2B – Very ecotoxic in the soil environment 9.3C – Toxic to terrestrial vertebrates
This substance triggers:	Compliance Certificate – 250L Certified Handler – N/A Quantity to be secured when unattended – N/A Emergency Response Plan – 100L Secondary Containment – 100L Signage – 100L This substance is not required to be Tracked. All workplace personnel handling this substance are required to be trained on the safe handling and PPE requirements for the hazards associated with this substance.

SECTION 16: OTHER INFORMATION

The information provided in this Safety Data Sheet relates only to the specific material designated herein. This Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products.

This substance is approved under HSNO for use as a water treatment chemical. All reasonable care has been taken to ensure that the information and advice contained herein are from sources believed to be reliable and to represent the most up-to-date knowledge available at the date given in Section 16. No liability is assumed for any damages related to the use or misuse of this substance.

All chemical materials may present unknown hazards as people have varying degrees of sensitivity to chemicals. Therefore, this product should be used with caution. The information herein is given in good faith, but no warranty, express or implied is made.

SDS Issued:	07/03/2019
Reason for Revision:	Update to New Zealand regulatory requirements.
References:	EPA NZ Chemical Classification and Information Database EPA Guide: Assigning a Hazardous Substance to a Group Standard, 2014



END OF SAFETY DATA SHEET