Safety Data Sheet
CLINISAN

Section 1: PRODUCT IDENTIFICATION

Product Identifier:
Product name: CLINISAN

Recommended uses:
Chlorine based disinfectant

Contact details:
WORCHEM Limited,
247 Old School Road,
Ngahinapouri, 3882
Tel: +64 27 635 2103

Emergency 24-hour Contact:
NZ Poisons Centre: 0800 POISON (0800 764 766)

Section 2: HAZARD IDENTIFICATION

Hazardous according to the HSNO (Minimum Degrees of Hazard) Regulations 2001.
Signal word: **DANGER**

HSNO Classification	Hazard Code	GHS Hazard Category	Hazard Statement
5.1.1 B	H272	Oxidizing liquids – Category 2	May intensify fire; oxidizer
6.1 D (O)	H302	Acute toxicity: oral – Category 4	Harmful if swallowed
6.1 E (D)	H313	Acute toxicity: skin – Category 5	May be harmful in contact with skin
6.1 D (I)	H332	Acute toxicity: inhalation – Category 4	Harmful if inhaled
6.3 A	H315	Skin irritation – Category 2	Causes skin irritation
8.3 A	H318	Serious eye damage – Category 1	Causes serious eye damage
9.1 A	H400	Aquatic toxicity (acute) – Category 1	Very toxic to aquatic life
9.2 A	H421	Ecotoxic to soil environment	Very toxic to the soil environment
9.3 C	H433	Ecotoxic to terrestrial vertebrates	Harmful to terrestrial vertebrates

Prevention:

P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat.
P220	Keep away from clothing combustible materials.
P221	Do not spray on an open flame or other ignition source.
P264	Wash hands thoroughly after handling.
P261	Avoid breathing dust.
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 and eye protection.

Response:

P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth.
P362	Take off contaminated clothing and wash before re-use.
P391	Collect spillage.
P301+ P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+ P352	IF ON SKIN: Wash with plenty of soap and water.
P304+ P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P332+ P313	If skin irritation occurs: Get medical advice/ attention.
P370+ P378	In case of fire: Use water for extinction
P305+ P351+ P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage:

-	none

Disposal:

P501	Dispose in according local regulations

Other:

Keep away from acids. Contact with acids liberates toxic gas.

Section 3: COMPOSITION

CAS Number	Ingredients	Wt%
2893-78-9	Sodium dichloroisocyanurate	>60%
77-92-9	Citric acid	10-30%
-	Non hazardous material	-

Section 4: FIRST AID

Eye Contact: Irritating to the eye. Direct contact may cause severe irritation, pain and burns, and permanent damage including blindness. If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, seek medical attention.

Inhalation: This material contained in this tablet in solid form is not expected to produce respiratory effects. If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/ attention.

Ingestion: Harmful if swallowed. Seek immediate medical attention. Ingestion may cause immediate pain and severe burns of the mucous membranes. If swallowed, immediately rinse mouth, and then drink plenty of water or milk. DO NOT induce vomiting.

Skin Contact: Direct contact with wet material or moist skin may cause severe irritation, pain, and possibly burns. Remove contaminated clothing. If on skin, Flush skin with plenty of water for at least 15 minutes.

Section 5: FIRE-FIGHTING

Flammable properties: Non-flammable.
Oxidant - Contact with combustible material may cause fire.

Extinguishing media: Flood with copious amounts of water.
Potential for production of nitrogen trichloride if left damp.
Do not use dry chemicals, carbon dioxide or halogenated extinguishing agents.

Hazards arising from combustion: Production of noxious gasses during combustion, including: Chlorine, nitrogen, nitrogen trichloride, cyanogen chloride, oxides of carbon, phosgene.

Special equipment: Full protective clothing and a self-contained breathing apparatus.
Use sodium carbonate for decontamination of firefighting equipment

Section 6: ACCIDENTAL RELEASE

Evacuate all unnecessary personnel. Handle spillage carefully. Do not clean-up spillage with water. Never return spilled material to original container.

Do not release into the environment. Prevent flow of material into water source and begin monitoring available chlorine and pH immediately. Notify all downstream users of possible contamination.

Contain spilled material. Any spillage should be cleaned up as soon as possible. Do not add water to spilled material. Using clean dedicated equipment, sweep and scoop all spilled material, contaminated soil, and other contaminated material and place into clean, dry containers for disposal. Do not close drums containing wet or damp material. Do not transport wet or damp material. Dispose of waste according to the applicable local and national regulations.

Section 7: HANDLING AND STORAGE

Read label before use.
Keep out of reach of children.

Storage: Store in original container and in a cool dry area. Keep container tightly closed. Do not allow water to enter container. Keep away from fire, heat, flame & direct sunlight.

Handling: Use the protective equipment recommended in section 8. Do not eat, drink or smoke when handling this material. Avoid breathing dust. Wash hands thoroughly after handling. Avoid contact with eyes, skin and clothing. When handling large quantities of tablets, wear gloves and safety goggles

Incompatibilities: Contamination with moisture, organic matter or other chemicals may start a chemical reaction with generation of heat, liberation of hazardous gases, and possible generation of fire and explosion.

Section 8: EXPOSURE CONTROLS

Ventilation: Use only in a well-ventilated areas. Provide local exhaust ventilation where dust or mist may be generated.

Eye protection: Wear chemical safety goggles. Avoid wearing contact lenses if possible. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Respiratory protection: Where any dust in the breathing zone cannot be controlled with local ventilation, wear officially approved respirator for protection against airborne dust. An approved respirator with EN140 (chlorine) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. The added protection of a full-face piece respirator is required when visible dusty conditions are encountered and eye irritation may occur. A respiratory protection program that meets applicable regulatory requirements must be followed whenever workplace conditions warrant use of a respirator.

Skin protection: Wear suitable chemical resistant gloves. Protective Material Types: Butyl rubber, Natural rubber, Neoprene, Nitrile, Polyvinyl chloride (PVC). Wear protective clothing to minimize skin contact. Contaminated clothing should be removed and laundered before reuse. Wash thoroughly with soap and water after handling.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White tablet
Odour and Threshold	Characteristic chlorine odour
pH	5-7
Melting /Freezing point	N/A
Boiling point	N/A
Flash Point	N/A
Flammability	Non-flammable
Explosive limits	N/A
Vapour Pressure	N/A
Vapour Density	N/A
Rel. Density / Specific Gravity	N/A
Solubility	Completely soluble in water
Partition coefficient	$K_{ow} = 0$
Auto-ignition temp	N/A
Decomposition temp	225-250°C
Kinematic viscosity	N/A

Section 10: STABILITY / REACTIVITY

General information: Powerful oxidising agent

Reactivity: Stable at normal temperature and pressure

Conditions to avoid: Do not get wet. Do not allow water to enter container

Incompatible materials: Strong acids, strong alkali material, reducing agents, combustible material.

Hazardous decomposition Products: Chlorine, hydrogen chloride, nitrogen dioxide, nitrogen, nitrogen trichloride, cyanogen chloride, carbon monoxide, phosgene.

Section 11: TOXOLOGIAL INFORMATION

Route of entry: Inhalation, skin contact and ingestion.

Inhalation: Can cause irritation to the nose, mouth, throat and lungs.
Ingestion: Can cause irritation and /or burns to the gastrointestinal tract.
Skin contact: Can cause severe irritation and /or burns, characterized by redness & swelling.
Eye contact: Causes severe eye irritation. May cause impairment of vision and corneal damage.

Acute toxicity:

Sodium dichloroisocyanurate
735 mg/kg (oral - rat)
2000 mg/kg (dermal rabbit)
1.17 mg/m^3 (Inhalation)
https://www.epa.govt.nz/database-search/chemical-classification-and-information-database-ccid/view/1776

Citric acid
Corrosive to ocular tissue (rabbit)
https://www.epa.govt.nz/database-search/chemical-classification-and-information-database-ccid/view/3044

Section 12: ECOLOGICAL INFORMATION

Product is very toxic to aquatic life. Do not discharge into lakes, ponds, streams or public water unless in accordance with the permit of official regulations.

Aquatic toxicity:	Very toxic to aquatic life
Bio accumulative:	No
Rapidly degradable:	Yes

Daphnia magna (Crustacea)	LC_{50} = 0.28 mg/L
Salmo gairdneri (fish)	LC_{50} = 0.13 mg/L

Soil toxicity:	Very ecotoxic in the soil environment Soil DT 50 > 30 days: yes
Vertebrate toxicity:	Harmful to terrestrial vertebrates
Colinnus virginianus (avian)	LC_{50} = 730 mg/kg

https://www.epa.govt.nz/database-search/chemical-classification-and-information-database-ccid/view/1776

Section 13: DISPOSAL CONSIDERATIONS

Disposal Method: Do not put product, spilled product, partially filled containers into the waste compactor. Contact with incompatible materials could cause a reaction and fire. Do not transport damp or wet material. Neutralise materials to a non-oxidising state for safe disposal.

Ensure any container holding waste product or contaminated spill media is labelled “Hazardous Waste – Ecotoxic“ and that the label also has the Ecotoxic Pictogram, waste type identifier, and the business name, address, and phone number.

Precautions or methods to avoid: Avoid release to the environment.

Section 14: TRANSPORT INFORMATION

This product is classified as a Dangerous Good for transport in NZ; NZS 5433:2012 Road and Rail Transport

	NZS 5433	IATA	IMDG
Pictogram			
UN Number	2465	2465	2465

Class	5.1	5.1	5.1
Packing Group	II	II	II
Hazchem	1W	1W	1W
Proper shipping name	DICHLOROISOCYANURIC ACID, SALTS		

Special provisions: 135 - The dihydrated sodium salt of dichloroisocyanuric acid does not meet the criteria for inclusion in Class 5.1 and is not subject to ADR unless meeting the criteria for inclusion in another class.
Limited quantities: 1 kg
Marine Pollutant: Yes
EmS F-A, S-Q
Stowage and Segregation: Category A. Keep as dry as possible

Section 15: REGULATORY INFORMATION

EPA Approval Code: Cleaning Products (Oxidising [5.1.1]) Group Standard 2017 - HSR002590

All materials listed on the New Zealand Inventory of Chemicals (NZIoC).

Certified Handler	Not required
Tracker information	Not required
Location Test Certificate	Not required
Signage trigger quantities	>500 kg
Secondary containment	>500 kg
Emergency Response Plan Trigger Quantities	>500 kg

Section 16: OTHER INFORMATION

SDS Version Number: 1.0
SDS Effective Date: 13/08/2019 **SDS Review Date:** 13/08/2024

SDS Regulation: The content and format of this SDS is in accordance with HSNO Approved Code of Practice (No. HSNO COP 8-1 09-06): Preparation of Safety Data Sheets.

Acronyms:

CAS number	Chemical Abstracts Service Registry Number
EPA	Environmental Protection Agency
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
HSNO	Hazardous Substances and New Organisms
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Concentration deemed lethal to 50% of the population
NOS	Not otherwise specified
NZIoC	New Zealand Inventory of Chemicals
NZS	New Zealand Standard
R-Phrase	Risk Phrase
SDS	Safety Data Sheet
UN Number	United Nations Number
Wt%	Weight as a percentage of the total weight