



1. Identification of Substance & Company

Product

Product name	Sodium Dichloroisocyanurate
Other names	Neochlor 60, 1,3-Dichloro-1,3,5-triazine-2,4,6(1H, 3H, 5H)-trione sodium salt
Product codes	not assigned
HSNO approval	HSR002631
Approval description	Oxidising Liquids and Solids Group Standard 2020
UN number	2465
DG class	5.1
Proper Shipping Name	DICHLOROISOCYANURIC ACID SALT
Packaging group	II
Hazchem code	1W
Uses	Bleach or sanitising chemical

Company Details

Company	Argo International Ltd
Physical Address	9 St Benedicts St, Eden Terrace, Auckland
Telephone	+64 9 377 5061
Fax	+64 9 309 1992
Email	argo@argoint.co.nz
Website	Argoint.co.nz

Emergency Telephone Number: 0800 764 766 (National Poison Centre)

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002631, Oxidising Liquids and Solids Group Standard 2020): The substance has been classified as hazardous according to the criteria in the Hazardous substances (Hazard Classification) Notice 2017.

Classes	Hazard Statements
Oxidising solid Category 2	H270 - May intensify fire; oxidizer.
Acute oral toxicity Category 4 (oral)	H302 - Harmful if swallowed.
STOT SE cat 3	H335 - May cause respiratory irritation.
Skin irritation cat 2	H315 - Causes skin irritation.
Eye irritation cat 2	H319 - Causes serious eye irritation.
Aquatic acute cat 1	H410 - Very toxic to aquatic life with long lasting effects.

SYMBOLS

DANGER



Classes	Hazard Statements
5.1.1B	H270 - May intensify fire; oxidizer.
6.1D (oral)	H302 - Harmful if swallowed.
6.1E (dermal)	H313 - May be harmful in contact with skin.
6.1E (respiratory irritation)	H335 - May cause respiratory irritation.
6.3A	H315 - Causes skin irritation.
6.4A	H319 - Causes serious eye irritation.
9.1A	H410 - Very toxic to aquatic life with long lasting effects.
9.2A	H421 - Very toxic to the soil environment.
9.3C	H433 - Harmful to terrestrial vertebrates.



Precautionary Statements

- P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.
P210 - Keep away from heat. No smoking.
P220 - Keep/Store away from clothing/combustible materials.
P221 - Take any precaution to avoid mixing with combustibles.
P261 - Avoid breathing dust.
P264 - Wash hands 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.
- P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
P330 - Rinse mouth.
P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P332+P313 - If skin irritation occurs: Get medical advice/ attention.
P362 - Take off contaminated clothing and wash before re-use.
P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
P391 - Collect spillage.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Sodium Dichloroisocyanurate (SDIC)	2893-78-9	100%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

- Swallowed** IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Rinse mouth. Call a POISON CENTRE or doctor/physician if you feel unwell.
- Eye contact** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- Skin contact** IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before re-use.
- Inhaled** IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Advice to Doctor

Treat symptomatically



5. Firefighting Measures

Fire and explosion hazards:	This product is:classified as an oxidiser. Oxidising materials can increase the intensity of fire.
Suitable extinguishing substances:	Carbon dioxide, extinguishing powder, foam, fog sprays, water jets.
Unsuitable extinguishing substances:	Unknown.
Products of combustion:	May release toxic and corrosive fumes of nitrogen trichloride, chlorine and oxides of carbon. May accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	1W

6. Accidental Release Measures

Containment	If greater than 500kg is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Std	Ingredient	WES-TWA	WES-STEL
	Sodium Dichloroisocyanurate	No data	No data
	Chlorine	0.5ppm, 1.5mg/m ³	1ppm, 2.9mg/m ³

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

General	Personal Protective Equipment (PPE) should not be used as the primary means of exposure protection, except in the event of an accident or emergency situation or where all other means of protection have proven to inadequate. Clean PPE after use or dispose of as appropriate. Store PPE for re-use in a clean place. Regular training on the correct use of PPE should be provided. In particular the correct fitting and use of respirators and where applicable the cleaning of respirators should be
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Eyes



undertaken.

Protect eyes with goggles, safety glasses or full face mask. Avoid wearing contact lenses. Select eye protection in accordance with AS/NZS 1337.

Skin



Protective gloves are recommended. Protective gloves or suitably resistant material must comply with AS 2161. Replace frequently. Gloves should be checked for tears or holes before use. Protective clothing must comply with AS 2919, AS3765.1 or AS3765.2. PVC or rubber boots must comply with AS/NZS 2210.2 and selected and maintained in accordance with AS/NS2210.1.

Respiratory

A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. Use a respirator with a particulate filter. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	white granular solid
Odour	chlorine odour
pH	6.5 (1% solution)
Vapour pressure	no data
Viscosity	no data
Boiling point	no data
Volatile materials	no data
Freezing / melting point	decomposes at 240°C
Solubility	25g/100ml H ₂ O at 25°C
Specific gravity / density	2.03g/ml, 0.87kg/m ³ (bulk density)
Flash point	no data
Danger of explosion	not explosive
Auto-ignition temperature	no data
Upper & lower flammable limits	no data
Corrosiveness	no data

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Oxidising substance - keep away from sources of ignition and flammable materials (see below).
Incompatible groups	Strong bases and other oxidising agents, e.g. calcium hypochlorite, flammable substances. Ammonia, ammonium salts, urea
Hazardous decomposition products	Chlorine, nitrogen chlorides, cyanic acid, carbon monoxide
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: harmful if swallowed. May irritate the gastrointestinal system, mouth and throat. May cause headaches and nausea.

IF IN EYES: dust or vapours can cause irritation, redness, tearing and burns.

IF ON SKIN: may cause skin irritation.

IF INHALED: dust is irritating to the respiratory system. May cause shortness of breath, headaches, nausea

Supporting Data

Acute	Oral	Sodium Dichloroisocyanurate (SDIC) LD ₅₀ : 735mg/kg (rat).
	Dermal	Sodium Dichloroisocyanurate (SDIC) LD ₅₀ : >2000mg/kg (rat).
	Inhaled	No value for inhalation toxicity however may cause respiratory irritation.
	Eye	This substance may cause eye irritation.
Chronic	Skin	This substance may cause mild skin irritation.
	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.



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**Carcinogenicity
Reproductive /
Developmental
Systemic
Aggravation of
existing conditions**

No ingredient present at concentrations > 0.1% is considered a carcinogen by EPA NZ.
No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation by EPA NZ.
No ingredient present at concentrations > 1% is considered a target organ toxicant.
None known.

12. Ecological Data

Summary

This substance is very toxic towards aquatic organisms and in the soli environment. It is also harmful towards terrestrial vertebrates.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is < 1 mg/L. Data considered includes: Sodium Dichloroisocyanurate (SDIC) LC ₅₀ : 0.13mg/L (96hr, <i>Salmo gairdneri</i>), 0.28mg/L (48hr, <i>Daphnia magna</i>).
Bioaccumulation	SDIC is not bioaccumulative.
Degradability	SDIC is rapidly degradable.
Soil	EPA have classed SDIC as 9.2A under HSNO.
Terrestrial vertebrate	SDIC: LC ₅₀ 730mg/kg (<i>Colinus virginianus</i> (avian))
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	Product is used as a sanitiser at 100ppm (as available chlorine) on surfaces and in water treatment.
Environmental effect levels	No EELs are available for this mixture or ingredients

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	2465	Proper shipping name:	DICHLOROISOCYANURIC ACID SALT
Class(es)	5.1	Packing group:	II
Precautions:	oxidiser	Hazchem code:	1W
IMDG:			
UN number:	2465	Proper shipping name:	DICHLOROISOCYANURIC ACID SALT
Class(es)	5.1	Packing group:	II
Precautions:	oxidiser	EMS	F-A, S-Q
IATA:			
UN number:	2465	Proper shipping name:	DICHLOROISOCYANURIC ACID SALT
Class(es)	5.1	Packing group:	II
Precautions:	oxidiser	Guide no	140



15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002631, Oxidising Liquids and Solids Group Standard 2020.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 500kg is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 500kg is stored.
Signage	Required if > 500kg is stored.
Location compliance certificate	Required if > >500kg (closed), >50kg (open) is stored.
Flammable zone	Must be established if any quantity is stored.
Fire extinguisher	If > 200kg present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002631, Oxidising Liquids and Solids Group Standard 2020 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
GHS	Globally Harmonised System of Classification and Labelling of Chemicals, 7 th revised edition, 2017, published by the United Nations.
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
NZIoC	New Zealand Inventory of Chemicals
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
STOT RE	System Target Organ Toxicity – Repeated Exposure
STOT SE	System Target Organ Toxicity – Single Exposure
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.



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References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
Feb 2019	Not applicable – new SDS
23 July 2021	HSNO to GHS 7, new group standard.

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO and GHS 7 classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: **+64 9 940 30 80**.

