

MATERIAL SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name: CALCIUM HYPOCHLORITE 70% - Japanese Origin
Trade Name: NICLON 70G
Restriction of Use: See Section 15
Synonym(s):
Product Use: Swimming pool chemical, algicide, biocide, oxidant.
Supplier Name: Argo International Ltd
Address: Level 9, 9 Victoria Street East, Auckland
Telephone: +64 9 377 5061
Fax: +64 9 309 1992
Email: argo@argoint.co.nz
Website: Argoint.co.nz
Emergency Number(s): For advice, contact the National Poisons Centre
 (New Zealand: Phone 0800 764766) or a doctor

SECTION 2: HAZARDS IDENTIFICATION

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017.

Approval No: Oxidising [5.1.1], Corrosive substances Group Standard 2017 – HSR002632

Pictograms:



Oxidising

Toxic

Corrosive

Exotoxic

Signal Word: DANGER

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
5.1.1B	H272	May intensify fire oxidiser.	Ox. Sol. 2
6.1D (oral)	H302	Harmful if swallowed.	Acute Tox. 4
8.1A	H290	May be corrosive to metals.	Met. Corr. 1
8.2B	H314	Causes severe skin burns and eye damage.	Skin Corr. 1B
8.3A	H318	Causes serious eye damage.	Eye Corr. 1
9.1A	H410	Very toxic to aquatic life with long lasting effects.	Aquatic Chronic 1
9.2A	H421	Very toxic to the soil environment.	-
9.3C	H433	Harmful to terrestrial vertebrates.	-

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat, sparks, open flames or hot surfaces. No smoking.
P220	Keep or Store away from clothing or combustible materials.
P221	Take any precaution to avoid mixing with combustibles.
P234	Keep only in original container.

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P260	Do not breathe dust.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective PPE as described in Section 8.

Response code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
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.
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.
P370 + P378	In case of fire: Use dry chemical powder or foam.

Storage Code	Storage Statement
P405	Store locked up.
P406	Store in corrosive resistant/... container with a resistant inner liner.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**Classification of the chemical substance**

Chemical/Common Name	Concentration or Concentration Range.	CAS No
Calcium Hypochlorite	Not less than 70%(in available chlorine)	7778-54-3
Calcium Hydroxide	1-5%	1305-62-0
Water	7-16%	7732-18-5

SECTION 4: FIRST AID MEASURES

NOTE: First aiders should wear gloves to avoid contacting hazards.

Inhalation: Remove victim to fresh air.
Keep at rest in a comfortable position for breathing.
Immediately call Poisons Centre
(New Zealand: Phone 0800 764 766) or a doctor.



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Skin/Hair:	Remove contaminated clothing. Rinse skin with water/shower, seek medical attention. Wash contaminated clothing before re-use.
Ingestion:	Rinse mouth. Do NOT induce vomiting. Seek medical attention immediately.
Eyes:	Wash in water for 15 minutes, holding eyelids open. Remove contact lenses if present and easy to do. Continue rinsing.
Important:	Causes severe eye damage attributed to alkaline.
Protection for First Aiders:	Remove contaminated clothing and protective equipment. First aiders should wear gloves to avoid contacting hazards.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion:	May be harmful if swallowed.
Inhalation:	Not applicable.
Skin:	Causes severe skin burns and eye damage.
Eye:	Causes serious eye damage.

SECTION 5: FIRE FIGHTING MEASURES

Decomposition:	This product is decomposed by contact with heat, grease, oils, reducing substances and other flammable substances. Causes fire and/or explosion. Harmful and explosive gas is generated by mixing with Chlorinated Isocyanuric acid (organic Chlorinated lime).
Extinguishing media:	Plenty of water.
Unsuitable extinguishing media:	Dry chemical powder, foam.
Specific hazards:	Product decomposes rapidly by heating. Irritating, toxic or corrosive gasses may be generated. Product has fire assist property and might intensify fire.
Specific fire-fighting measures:	Without any risks such as exposure to heat, evacuate containers to a safe place. For irremovable containers, cool containers with water sprat to prevent increase of container temperature. Cool with enough water after fire-fighting.
Special protective equipment for the fire fighter:	During fire-fighting, wear heat resistance gloves, safety goggles and breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective & Emergency Procedures:	If indoors, conduct ventilation sufficiently until the disposal is complete. Keep people away from around the leakage site by encircling it with a cordon tape. During working wear protection as stated in Section 8 in order to prevent adhering powder to the skin and inhalation of gas.
Environmental precautions:	Do not drain the leaked product directly into the rivers and the sewerage.
Clean Up:	Collect the leaked product as much as possible. Flush with plenty of water. Dispose of the leaked product in accordance with Section 13).
Prevention measures of a secondary disaster:	Keep flammable substances (paper, wood, oil, etc) away from leaked product.



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SECTION 7: HANDLING AND STORAGE

- Safe Handling Advice:** Keep away from flammable substances and oxidising substances such as grease/oils/reducing substances.
Avoid contact with nitrogen compounds such as Ammonia and its salts.
Avoid contact with Chlorinated Isocyanuric acid.
Use away from fire and hot surfaces.
Do not leave wet.
Do not drink, eat or smoke during handling.
Wash hands thoroughly after handling.
Wear PPE as described in Section 8.
- Storage:** Store away from flammables/incompatible substances.
Keep under lock and key.
Store in a well ventilated cool place.
Protect from fire, heat and direct sunlight.
Do not damage or give strong shock to the packaging containers during storage.
A storage place should be a fire-proof structure.
Store in a dry indoor place.
Protect from direct sunlight.
Install ventilation facility.
Store away from flammable substances and incompatible substances.
Appropriate Storage Conditions: Avoid contact with grease, oils, reducing substances, flammable substances, oxidising substances, Ammonia and its salts, Nitrogen compounds, and Chlorinated Isocyanuric acid.
- General Precautions:** Exercise caution especially during handling high concentration of aqueous solutions since the severity of skin/eye irritation of the aqueous solutions increases with the concentration.
Do not contact with skin/eyes, swallow or inhale.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Calcium hydroxide [1305-62-0]		5		

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WES-STEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2017 9TH EDITION.

- Engineering Controls:** Take facility measures stated in Section 8.
Never handle the container roughly such as tumbling, dropping, impacting or dragging.
Use clean, dry containers/equipment made of stainless steel, china, resin or glass during handling.
- Local and Ventilation:** Conduct local or entire exhaust ventilation stated in Section 8.
- Facility Measures:** Install a ventilation system at handling place.
Install eye washing facility and shower.

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Administrative Levels: Not established.

Personal protective Equipment:

Inhalation: Dust/mist filtering respirator, air supplied mask, respirator, etc

Hand protection: Rubber protective gloves.

Eye protection: Safety goggles

Skin and body protection: Working clothing with long sleeves and long pants.

Respiration: Wear respiratory protection in areas of poor ventilation.

Appropriate hygiene measures: Wash hands thoroughly.

Gargle after working, before eating and drinking.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid (Granular).

Colour: White - whitish.

Odour: Odour of Chlorine.

pH: Alkaline when dissolved in water.

Melting Point: Not applicable.

Freezing Point: Not applicable.

Boiling Point: Not applicable.

Flash Point: Not applicable.

Auto Ignition Temperature: No data.

Flammability (solid, gas): Non-combustible.

Lower Flammability or Explosive Limits: None.

Upper Flammability or Explosive Limits: None.

Vapour Pressure: No data.

Vapour Density: No data.

Evaporation Rate: Not applicable.

Specific Gravity (Relative Density): 2.35 at 20°C

Solubility: 21.4% (in water at 25°C)

Partition, Coefficient n-octanol/water: No data.

Decomposition Temperature: 177°C.

Other Information: Not available.

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable under ordinary storage and handling conditions.
This product is decomposed by contact with heat and acids.
Light and Chlorine gas is generated.

Possibility of Hazardous Reactions: This product violently reacts with flammable substances and reducing substances and may cause ignition and explosion.

Conditions to avoid: Avoid contact with direct sunlight and high temperature body.

Incompatible materials: Oils, Grease, reducing substances, Oxidising substances, Ammonia and its salts, Nitrogen compounds, Chlorinated Isocyanuric acid, etc.

Hazardous decomposition Products: Chlorine and Nitrogen compounds are formed by contact with acids.
Explosive and toxic Nitrogen Trichloride is formed by contact with Chlorinated Isocyanuric acid.

SECTION 11: TOXICOLOGICAL INFORMATION**Acute Toxicity:**

Calcium Hypochloite	790 mg/kg	Oral rat (LD50)	SIDS
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Calcium Hypochloite	>2000 mg/kg	Hypodermic rabbit (LD50)	HSDB
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Acute Effects:

Swallowed	Harmful if swallowed.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes serious eye damage.
Skin	Causes severe skin burns and eye damage.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Not applicable.

SECTION 12: ECOLOGICAL INFORMATION

HSNO Classes: 9.1A = Very toxic to aquatic life with long lasting effects.

9.2A = Very toxic to the soil environment.

9.3C = Harmful to terrestrial vertebrates.

Eco-toxicity

Fish:

Calcium Hypochlorite	0.049-0.16 mg/L (95h)	Bluegill (LC50)	IUCLID
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Mobility in soil.

No information available.

Persistence/ Degradability:

Decomposed under the presence of light.

Bio-accumulative Potential:

Although acute toxicity is strong, bioaccumulation is estimated low.

Other adverse effects:

In order to prevent marine organisms and birds from taking it, the product must not be disposed of or released into any ocean or water areas.

SECTION 13: DISPOSAL CONSIDERATIONS

Residual Wastes:

Do not throw away in general garbage.

For disposal, dissolve the product in water, dilute, process with reductants such as Sodium Thiosulfate and Sodium Sulphite.

Dilute with plenty of water and dispose of the solution in accordance with the regulated laws and regulations.

Contaminated containers and packaging:

For used containers, remove the contents completely. Commit disposal to industrial waste disposal contractor that have received approval from the municipalities.

Conditions to avoid:

Do not allow to enter waterways.

SECTION 14: TRANSPORT INFORMATION

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



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Road and Rail Transport

UN No: 3487
Class-primary 5.1
Subclass 8
Packing Group II
Proper Shipping Name: CALCIUM HYPOCHLORITE CORROSIVE

Air Transport

UN No: 3487
Class-primary 5.1
Subclass 8
Packing Group II
Proper Shipping Name: CALCIUM HYPOCHLORITE CORROSIVE

Marine Transport

UN No: 3487
Class-primary 5.1
Subclass 8
Packing Group II
Proper Shipping Name: CALCIUM HYPOCHLORITE CORROSIVE
Marine Pollutant: Yes

SECTION 15: REGULATORY INFORMATION

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval Code: Oxidising [5.1.1], Corrosive substances Group Standard 2017 – HSR002632

HSNO Classification: 5.1.1B, 6.1D(oral), 8.1A, 8.2B, 8.3A, 9.1A, 9.2A, 9.3C

HSW (HS) Regulations 2017	Trigger Quantity
Certified Handlers	Not required
Location Certificate	If in use: 50 kg (250kg if stored only)
Signage Trigger Quantities (Schedule 3)	100Kg (9.1A)
Emergency Response Plan (Schedule 5)	100Kg (9.1A)
Secondary Containment (Schedule 5)	100Kg (9.1A)
Tracking (Schedule 26)	Not required
Restrictions of Use	Use only as intended.

SECTION 16: OTHER INFORMATION

Glossary

EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms

inhaling or ingesting it.

LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

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Please contact Argo Internations, if further information is required.

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