

SAFETY DATA SHEET

Product Identifier

Manufacturer's Name: CAPO INDUSTRIES LTD.
Street Address: 1200 Corporate Drive
City: Burlington, Ontario, CANADA
Postal Code: L7L 5R6

Emergency Telephone: Canutec (613) 996-6666 (Collect)

SECTION 1. IDENTIFICATION

Product Identifier

Vinyl Shock (Canadian)

Other Means of Identification

Not applicable.

Recommended Use

Swimming pool oxidizing agent, algaecide, disinfectant, sanitizer, bactericide, fungicide, microbiocide/microbiostat

Restrictions on Use

Do not use product for anything outside of the above-specified uses.

Initial Supplier Identifier

Capo Industries Ltd.

Emergency Telephone Number

Canutec (613) 996-6666 (Collect)

SECTION 2. HAZARD IDENTIFICATION

Classification

Oxidising solids -	Category 2
Acute Oral Toxicity -	Category 4
Eye Irritation/Damage -	Category 2A
Skin Irritation -	Category 2B
Specific target organ toxicity (single exposure) -	Category 3
Acute Aquatic Toxicity -	Category 1
Chronic Aquatic Toxicity -	Category 1
Reproductive Toxicity -	Category 2

SIGNAL WORD: DANGER

Label Elements



Hazard Statement(s):

H272 May intensify fire; oxidizer.
H302 Harmful if swallowed.

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H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H361 Suspected of damaging fertility or the unborn child.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statement(s):

Prevention:

P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat. No smoking.
P220 Keep and store away from clothing, incompatible materials, combustible materials.
P221 Take any precaution to avoid mixing with combustibles / incompatible materials.
P261 Avoid breathing dust / fume / gas / mist / vapours / spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P281 Use personal protective equipment as required
P285 In case of inadequate ventilation wear respiratory protection.
P273 Avoid release to the environment.

Response:

P370+P378 In case of fire: Use water spray (large quantities) to extinguish.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth.
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.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 IF EXPOSED or CONCERNED: Get medical advice/attention.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313 IF EYE IRRITATION PERSISTS: Get medical advice/attention
P391 Collect spillage.

Storage:

P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national, international regulations.

Other Hazards

Contact with acids liberates toxic gas.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration	Common name / Synonyms
Sodium dichloroisocyanurate	2893-78-9	50-80%	Dichlor; NaDCC; Dichloroisocyanuric acid, sodium salt
Sodium borate pentahydrate	12179-04-3	1-20%	Borax 5; Sodium tetraborate pentahydrate
Sodium tripolyphosphate	7758-29-4	10-30%	STPP

Notes

No additional data available

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SECTION 4. FIRST-AID MEASURES

For advice, contact a Poisons Information Centre or a doctor.

Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discoloration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

Skin Contact:

Immediately flush contaminated areas with water. Remove contaminated clothing, jewelry and shoes. Wash contaminated areas with large amounts of water. GET MEDICAL ATTENTION IMMEDIATELY. Thoroughly clean and dry contaminated clothing before reuse.

Eye Contact:

Immediately flush contaminated eyes with a directed stream of water for as long as possible. Remove contact lenses, if present, then continue rinsing. GET MEDICAL ATTENTION IMMEDIATELY.

Ingestion:

If swallowed, do not induce vomiting. Give large amounts of water. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops. Never give anything by mouth to an unconscious or convulsive person. GET MEDICAL ATTENTION IMMEDIATELY.

Most Important Symptoms/Effects (Acute and Delayed):

Acute Symptoms/Effects: Listed below.

Inhalation (Breathing):

Respiratory System Effects: Exposure to the solid product or to free chlorine evolving from the product may cause irritation, redness of upper and lower airways, coughing, laryngeospasm and edema, shortness of breath, bronchoconstriction and possible pulmonary edema. The pulmonary edema may develop several hours after a severe acute exposure.

Skin:

Skin Corrosion. Exposure to solid along with moisture may cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third degree burns.

Eye:

Serious Eye Damage. Exposure to eyes may cause irritation and burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to the internal contents of the eye.

Ingestion (Swallowing):

Gastrointestinal Effects: Exposure by ingestion may cause irritation, nausea, and vomiting. May cause local tissue damage to esophagus and stomach such as burning, inflammation, local ulceration, and may cause gastrointestinal bleeding.

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Delayed Symptoms/Effects:

Repeated and prolonged skin contact may cause dermatitis.

Interaction with Other Chemicals Which Enhance Toxicity:

Contact with acids liberates toxic gas.

Medical Conditions Aggravated by Exposure: May aggravate pre-existing conditions such as: eye disorders that decrease tear production or have reduced integrity of the eye; skin disorders that compromise the integrity of the skin; and respiratory conditions including asthma and other breathing disorders.

Protection of First-Aiders:

Protect yourself by avoiding contact with this material. Use personal protective equipment. Refer to Section 8 for specific personal protective equipment recommendations. Avoid contact with skin and eyes. Do not ingest. At minimum, treating personnel should utilize PPE sufficient for prevention of bloodborne pathogen transmission.

Notes to Physician:

Treat as a corrosive substance. This material is more irritating to the skin and eyes in the presence of water. For prolonged exposures and significant exposures, consider delayed injury to exposed tissues. There is no antidote. Cyanuric acid is readily removed from the body via the renal system, and is not bioaccumulated. Treatment is supportive care. Follow normal parameters for airway, breathing, and circulation.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Water spray (large quantities).

Unsuitable Extinguishing Media:

DO NOT USE the following as extinguishing media: Dry agent (carbon dioxide, dry chemical powder).

Specific hazards arising from the chemical:

Non-combustible, but will support combustion of other materials. Oxidizing substance. Decomposes on heating emitting toxic fumes including those of chlorine, hydrogen chloride, oxides of boron, phosgene, sodium phosphorous oxide and sodium oxide.

Special protective equipment and precautions for fire-fighters:

Sodium dichloroisocyanurate is a powerful oxidising agent and decomposes violently upon heating liberating oxygen. In case of fire, area must be evacuated and specialist fire fighters called. Only large quantities of water should be used as an extinguishing agent. If excess water is not available, DO NOT attempt to extinguish the fire; use available water to prevent the spread of fire to adjacent property. Attending fire fighters should keep upwind if possible and wear full protective equipment including rubber boots and self-contained breathing apparatus. A fire in the vicinity of sodium dichloroisocyanurate should be extinguished in the most practical manner but avoid contaminating this material with the fire fighting agent, including water. Decomposes on contact with water evolving toxic chlorine gas and in the presence of small amounts of water, the explosive gas nitrogen trichloride. Once fire is extinguished, wash area thoroughly with excess water. Ensure that drains are not blocked with solid material. Maintenance of excess water during cleaning up operation is essential. Combustible material involved in the incident should be removed to a safe open area for controlled burning or for further drenching with water prior to collection for disposal.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

Environmental Precautions and Emergency Procedures:

Clear area of all unprotected personnel. Shut off all possible sources of ignition. Increase ventilation. Avoid breathing dust. Product is a water-soluble white powder that may cause damage to trees or vegetation by root absorption. If contamination of sewers or waterways has occurred, advise local emergency services.

Personal Precautions and Protective Equipment

Wear protective equipment to prevent skin and eye contact and breathing in vapours. Air-supplied masks are recommended to avoid inhalation of toxic material.

Methods for Containment and Cleaning Up

DO NOT return spilled material to original container for re-use. DO NOT add small amounts of water to sodium dichloroisocyanurate. Collect and transfer to large volume of water – do NOT use a metal container. To neutralise add sodium sulfite (2.4 kg/kg product). If no active chlorine remains, add soda ash (1.1 kg/kg product) to effect complete neutralisation. Where a spill has occurred in a confined space or an inadequately ventilated enclosure and the material is damp and evolving chlorine, the rate of chlorine evolution can be reduced by covering the thinly spread solid with soda ash.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid skin and eye contact and breathing in dust. Keep out of reach of children.

Conditions for Safe Storage

Store and handle in accordance with all current regulations and standards. (NFPA Oxidizer Class 2). Do not allow water to get in container. If liner is present, tie after each use. Keep container tightly closed and properly labeled. Store containers on pallets. Keep away from food, drink and animal feed. Keep separated from incompatible substances (see below or Section 10 of the Safety Data Sheet). Product has an indefinite shelf life if stored in original container in a cool, dry place.

Incompatibilities/ Materials to Avoid:

Acids, ammonia, bases, floor sweeping compounds, calcium hypochlorite, reducing agents, organic solvents and compounds.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH® TLV®		OSHA PEL	
	TWA	STEL	TWA	STEL
Sodium dichloroisocyanurate	No data available	No data available	No data available	No data available
Sodium borate pentahydrate	2 mg/m ³ (8h)	6 g/m ³ (15 min)	15 mg/m ³	5 mg/m ³

Appropriate Engineering Controls

Ensure ventilation is adequate and that air concentrations of decomposition product(s) is/are controlled below quoted Exposure Standards. Avoid generating and breathing in dusts. Use with local exhaust ventilation or while wearing dust mask. Keep containers closed when not in use.

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Individual Protection Measures

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

Eye/Face Protection

Wear safety glasses with side-shields. Wear chemical safety goggles with a face-shield to protect against eye and skin contact when appropriate. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear protective clothing to minimize skin contact. When potential for contact with dry material exists, wear disposable coveralls suitable for dust exposure, such as Tyvek®. Contaminated clothing should be removed and laundered before reuse. Wear appropriate chemical resistant gloves. Consult a glove manufacturer for assistance in selecting an appropriate chemical resistant glove (butyl rubber, natural rubber, neoprene, nitrile, polyvinyl chloride (PVC), Tyvek®).

Respiratory Protection

A NIOSH approved respirator with N95 (dust, fume, mist) 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. Acid gas cartridges with N95 filters are required when fumes or vapor may be generated.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

White crystalline granule/powder

Odour:

Slight chlorine odor

Odour Threshold (ppm):

No data available.

Decomposition Temperature:

> 250°C/485°F

Boiling Point/Range:

Not applicable

Freezing Point/Range:

Not applicable.

Melting Point/Range:

No data available.

Vapor Pressure:

No data available.

Vapor Density (air=1):

No data available.

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Relative Density/Specific Gravity (water=1):

No data available.

Bulk Density:

No data available.

Water Solubility:

No data available.

pH:

8.5 @ 25°C (1% solution)

Volatility:

Not applicable

Evaporation Rate (ether=1):

Not applicable

Partition Coefficient (n-octanol/water):

$K_{ow} = 0$

Flash point:

Not applicable

Flammability (solid, gas):

Not flammable

Lower Flammability Level (air):

Not flammable

Upper Flammability Level (air):

Not flammable

Auto-ignition Temperature:

Not determined

% Available Chlorine:

34.5%

Viscosity:

Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Oxidising, avoid contact with reducing agents. Reacts with reducing agents. Contact with acids liberates toxic gas.

Chemical Stability

Powerful oxidizing agent. Sodium dichloroisocyanurate reacts with water and acids evolving toxic chlorine gas and in the presence of small amounts of water, the explosive gas nitrogen trichloride. Decomposes in alkaline conditions evolving carbon dioxide, nitrogen and chloramine gases. Slightly hygroscopic.

Possibility of Hazardous Reactions

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Sodium dichloroisocyanurate reacts with water and acids evolving toxic chlorine gas and in the presence of small amounts of water, the explosive gas nitrogen trichloride. Decomposes in alkaline conditions evolving carbon dioxide, nitrogen, hydrogen and chloramine gases.

Conditions to Avoid

Avoid exposure to moisture. Avoid exposure to heat. Avoid exposure to direct sunlight. Avoid contact with other chemicals.

Incompatible Materials

Incompatible with combustible materials, ammonium salts, nitrogenous materials, acids and water. Incompatible with reducing agents, potassium, acid anhydrides.

Hazardous Decomposition Products

Chlorine, nitrogen, nitrogen trichloride, cyanogen chloride, oxides of carbon, phosgene, hydrogen

Hazardous Polymerization:

Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation Skin contact Eye contact Ingestion

Acute Toxicity

LC₅₀ (inhalation, rat, 4h)
0.27-1.17 mg/mL

LD₅₀ (oral, rat)
1823 mg/kg

LD₅₀ (dermal, rabbit)
> 2000 mg/kg

Notes

No additional data available

Skin Corrosion / Irritation

Exposure to solid along with moisture may cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third degree burns. Dry material is less irritating than wet material. This material is not a skin sensitizer based on studies with guinea pigs.

Serious Eye Damage / Irritation

Eye exposures may cause burns to the eye lids, conjunctivitis, corneal edema and corneal burn. Significant and prolonged contact may cause damage to the internal contents of eye.

Aspiration Hazard

Material is irritant to the mucous membranes of the respiratory tract (airways). Inhalation of high concentrations may result in shortness of breath, chest pain, severe headache and lung damage including pulmonary oedema. Effects may be delayed.

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Respiratory Sensitization

This material in the form as sold is not expected to produce respiratory effects. Particles of respirable size are generally not encountered. The respirable fraction is typically less than 0.1% by weight for the granular and extra granular grades. If ground or otherwise in a powdered form, effects similar to a corrosive substance may occur. Exposure to the solid product or to free chlorine evolving from the product may cause irritation, redness of upper and lower airways, coughing, laryngospasm and edema, shortness of breath, bronchoconstriction, and possible pulmonary edema. The pulmonary edema may develop several hours after a severe acute exposure.

Ingestion

Exposure by ingestion may cause irritation, nausea, and vomiting. May cause local tissue damage to epiglottis, mucus membranes of the mouth, esophagus and stomach such as burning, inflammation, local ulceration, and may cause gastrointestinal bleeding.

STOT (Specific Target Organ Toxicity) - Single Exposure

Category 3 - Respiratory Tract Irritation

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No data available

Carcinogenicity

This product is not classified as a carcinogen by NTP, IARC or OSHA.

Notes

No additional data available.

Reproductive Toxicity

No data available.

Germ Cell Mutagenicity

Not classified as a mutagen per GHS criteria.

Interactive Effects

No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

This material is very toxic to aquatic life. This material is very toxic to aquatic life with long lasting effects. Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies.

Fish Toxicity:

LC₅₀ Bluegill sunfish: 0.25-1.0 mg/L (96 hour)

LC₅₀ Rainbow trout: 0.13-0.36 mg/L (96 hour)

LC₅₀ Inland silversides: 1.21 mg/L (96 hour)

Invertebrate Toxicity:

LC₅₀ Water flea: 0.196 mg/L (48 hour)

LC₅₀ Mysid shrimp: 1.65 mg/L (96 hour)

Other Toxicity:

LD₅₀ Mallard duck (oral): 1,916 mg/kg

LD₅₀ N. Bobwhite Quail (oral): 1,732 mg/kg

LD₅₀ Mallard duck (diet): >10,000 ppm

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LD₅₀ N. Bobwhite Quail (diet): >10,000 ppm

Persistence and Degradability

Sodium dichloroisocyanurate is not believed to persist in the environment. Free available chlorine is rapidly consumed by reaction with organic and inorganic materials to produce chloride ion. The stable degradation products are chloride ion and cyanuric acid.

Borax is an inorganic substance and does not biodegrade.

Phosphate may persist indefinitely or incorporate into biological systems.

Bioaccumulative Potential

Sodium dichloroisocyanurate hydrolyses in water liberating free available chlorine and cyanuric acid. These products are not bioaccumulative.

Borax is an inorganic substance and does not biodegrade.

Phosphate may persist indefinitely or incorporate into biological systems.

Mobility in Soil

Product not likely to be mobile in soil.

Other Adverse Effects

This product is very toxic to fish and aquatic organisms. This product is very toxic to aquatic life with long lasting effects. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of appropriate regulatory requirements (e.g. permit and the permitting authority has been notified in writing prior to discharge). Do not discharge effluent containing this product into sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your local or regional regulatory water boards and/or other appropriate regulatory offices.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of material through a licensed waste contractor. Add sodium dichloroisocyanurate into dilute solution of sodium hydroxide or soda ash with stirring gradually and neutralize that solution with reduction agents such as sodium sulfite and sodium thiosulfate. Adjust pH with sulfuric acid or hydrochloric acid to make neutral solution and dispose.

SECTION 14. TRANSPORT INFORMATION

Road and Rail Transport



UN No: 1479

Transport Hazard Class: 5.1 Oxidizing Agent

Packing Group: II

Proper Shipping Name or

Technical Name: DICHLOROISOCYANURIC ACID SALTS

Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN No: 1479

SAFETY DATA SHEET

Transport Hazard Class: 5.1 Oxidizing Agent
Packing Group: II
**Proper Shipping Name or
Technical Name:** DICHLOROISOCYANURIC ACID SALTS

Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

UN No: 1479

Transport Hazard Class: 5.1 Oxidizing Agent
Packing Group: II
**Proper Shipping Name or
Technical Name:** DICHLOROISOCYANURIC ACID SALTS

SECTION 15. REGULATORY INFORMATION

Classification of the chemical:

Oxidising solids - Category 2
Acute Oral Toxicity - Category 4
Eye Irritation - Category 2A
Specific target organ toxicity (single exposure) - Category 3
Acute Aquatic Toxicity - Category 1
Chronic Aquatic Toxicity - Category 1

Hazard Statement(s):

H272 May intensify fire; oxidizer.
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H410 Very toxic to aquatic life with long lasting effects.

National Inventory Status:

U.S. INVENTORY STATUS: Toxic Substance Control Act (TSCA):

All components are listed or exempt.

TSCA 12(b):

This product is not subject to export notification.

Canadian Chemical Inventory:

All components of this product are listed on either the DSL or the NDSL.

SECTION 16. OTHER INFORMATION

Prepared By (Group, Department): Quality Control

Telephone: (905) 332-6626

Preparation Date: 20-February-2020

Date of Latest Revision: 30-December-2020

Additional Notes or References:

While Capco Industries Ltd. believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data are not to be taken as

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