

HAVILAND CONSUMER PRODUCTS INC

SAFETY DATA SHEET



Section 1: Identification

Product Name: Caribbean Blue 3" Chlor-Guard Product Code: C002340

Haviland Consumer Products Inc
421 Ann Street NW
Grand Rapids, MI 49504
(616) 361-6691

Emergency Phone:

CHEMTREC: Canada and USA - (800) 424-9300

CHEMTREC: In Mexico - 01-800-681-9531

Product Use: Pool Use - Pesticide Function

Not recommended for: Any Other Use

Section 2: Hazard(s) Identification

GHS Ratings:

Oxidizing solid	2	Oxidizing solid class 2
Acute Toxicity - Oral	4	Oral>300+<=2000mg/kg
Acute Toxicity - Inhalation	2	Gases>100+<=500ppm, Vapors>0.5+<=2mg/l, Dusts&mists>0.05+<=0.5mg/l
Skin corrosion/irritation	1C	Destruction of dermal tissue: Exposure < 4 hours Observation < 14 days, visible necrosis in at least one animal
Serious eye damage/eye irritation	1	Serious eye damage: Irreversible damage 21 days after exposure, Draize score: Corneal opacity >= 3, Iritis > 1.5
Acute aquatic toxicity	A1	Acute toxicity <= 1.00 mg/l
Chronic aquatic toxicity	C1	Acute toxicity <= 1.00 mg/l and lack of rapid degradability and log Kow >= 4 unless BCF < 500

GHS Hazards

H272	May intensify fire; oxidizer
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Cause serious eye damage
H330	Fatal if inhaled
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

GHS Precautions

P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking
P220	Keep/Store away from clothing and other combustible materials
P221	Take any precaution to avoid mixing with combustibles
P260	Do not breathe dust/fume/gas/mist/vapors/spray
P264	Wash face, hands, and any 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
P284	Wear respiratory protection
P310	Immediately call a POISON CENTER or doctor/physician
P320	Specific treatment is urgent (see first aid treatment on SDS)

P321	Specific treatment (see first aid treatment on SDS)
P330	Rinse mouth
P363	Wash contaminated clothing before reuse
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 victim 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: Refer to section 5 on proper extinguishing media
P405	Store locked up
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations

Danger



Section 3: Composition/Information on Ingredients

*The specific chemical name and/or concentration of the composition has been withheld as trade secret.

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Trichloroisocyanuric acid 87-90-1 90% - 100%			

Section 4: First-aid Measures

Inhalation

Rescuers should put on appropriate protective gear. Remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep victim warm. Get immediate medical attention. To prevent aspiration, keep head below knees.

Eye Contact

Immediately flush eyes with water. Flush eyes with water for a minimum of 15 minutes, occasionally lifting and lowering upper lids. Get medical attention promptly.

Skin Contact

Remove contaminated clothing. Wash skin with soap and water. Get medical attention. Wash clothing separately and clean shoes before reuse.

Ingestion

If swallowed, do NOT induce vomiting. Give victim a glass of water. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Most Important Symptoms/Effects (Acute and Delayed):**Acute Symptoms/Effects:**

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, laryngospasm and edema, shortness of breath, bronchoconstriction, and possible pulmonary edema. The pulmonary edema may develop several hours after a severe acute exposure. See inhalation explanation in Section 11 Potential Health Effects for additional information.

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 internal eye structures.

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.

Delayed Symptoms/Effects:

- Repeated and prolonged skin contact may cause a dermatitis

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**Extinguishing Media**

Use Copious amounts of water.

Unsuitable Extinguishing Materials

DO NOT use ABC or other dry chemical extinguishers. There is the potential for a violent reaction if extinguishing with ABC or other dry chemical extinguishers. DO NOT USE carbon dioxide as an extinguishing agent. DO NOT USE halogenated extinguishing agents

Specific Hazards Arising from the Chemical

Material which appears undamaged except for being damp on the outside, should be opened and inspected immediately. Use extreme caution when inspecting damaged packaging as damp or wet material may generate nitrogen trichloride, an explosion hazard and/or other hazardous and toxic gases.

Explosive properties: Damp or wet material may generate nitrogen trichloride, an explosion hazard. See Section 10 for stability and reactivity precautions.

Fire Hazard: According to NFPA 400 (Hazardous Materials Code), this material is classified as a Class 1 Oxidizer. Class 1 Oxidizers are oxidizers that do not moderately increase the burning rate of combustible materials with which it comes into contact. Wet material may generate nitrogen trichloride, an explosion hazard. Products exceeding 225 °C (437 °F) will decompose with liberation of toxic gases and possible fire and explosion. Negligible fire hazard.

Hazardous Combustion Products: Chlorine; Nitrogen; Nitrogen trichloride; Cyanogen chloride; Oxides of carbon; Phosgene

Advice for Firefighters: Consider evacuation of personnel located downwind. Keep unnecessary people away, isolate hazard area and deny entry. Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Wear NIOSH approved positive-pressure self-contained breathing apparatus operated in pressure demand mode.

Material which appears undamaged except for being damp on the outside, should be opened and inspected immediately. DO NOT attempt to reseal contaminated drums. Damp material should be allowed to thoroughly dry or be neutralized to a non-oxidizing state. Contact manufacturer for instructions for handling and disposal of damp material.

Special Protective Equipment and Precautions for Firefighters

Special Information: As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA / NIOSH approved or equivalent) and full protective gear.

Section 6: Accidental Release Measures**Spill and Leak Procedures**

Personal Precautions: Keep unnecessary and unprotected persons away. Isolate hazard area and deny entry. Do not get in eyes, on skin or on clothing. Do not breathe dust, fume, gas, mist, vapors, or spray. Wear appropriate personal protective equipment recommended in Section 8,

Exposure Controls / Personal Protection, of the SDS. Keep away from combustible materials.

Personal Protective Equipment: For Unknown Concentrations or exposures above IDLH (Immediately Dangerous to Life or Health) - Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.

Environmental Precautions: This material is very toxic to aquatic life with long lasting effects. This material is acidic and may lower the pH of surface waters. Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies.

Methods and Materials for Containment, Confinement, and/or Abatement: DO NOT add water to spilled material. DO NOT use floor sweeping compounds to clean up spills. Sweep and scoop spilled material into clean, dedicated equipment. Every attempt should be made to avoid mixing spilled material with other chemicals or debris when cleaning up. DO NOT attempt to reseal contaminated drums. DO NOT transport wet or damp material. Damp material should be neutralized to a non-oxidizing state. Contact manufacturer for instructions for handling and disposal of damp material.

Recovery: Contain spilled material. Any spillage of ACL products should be cleaned up as soon as possible to prevent contamination with foreign materials with which it may react. Floor sweeping compounds should not be used. KEEP SPILLED MATERIAL DRY. If allowed to stand in damp or wet areas, tear producing vapors may result. Keep unneutralized ACL out of sewers, watersheds and water systems. Using clean, dedicated equipment, sweep and scoop up all spilled material, contaminated soil and other contaminated material and place into clean dry containers for disposal. Complete cleanup on a dry basis if possible. Sweeping compounds or other contaminants should not be mixed with ACL during this cleanup operation as fuming, fire or explosion may result. Follow all protective measures indicated in the "Personal Precautions and Personal Protective Equipment" sections of this document.

Neutralization: The neutralization process involves the addition of waste ACL products to alkaline aqueous solutions maintained at a pH of 10.5 (e.g. sodium hydroxide; sodium carbonate; or sodium sulfite). At this pH (10.5), the major fraction of chlorine is destroyed by chemical reactions between chlorine and cyanuric acid contained in the waste ACL. THIS PROCESS SHOULD ONLY BE CARRIED OUT AFTER CAREFULLY REVIEWING THE ACL® WASTE NEUTRALIZING PROCEDURE PROVIDED BY OXYCHEM TECHNICAL SERVICE

Section 7: Handling and Storage

Handling Procedures

Use with adequate ventilation. Avoid breathing dusts, mists, and vapors. Do not get in eyes, on skin, or on clothing. Wear eye protection and protective clothing. Wash thoroughly after handling.

Storage Requirements

Safe Storage Conditions: Store and handle in accordance with all current regulations and standards. (NFPA Oxidizer Class 1). Store away from open flames, and combustibles. Store in original container and in a dry area where temperatures do not exceed 52 °C (125 °F) for 24 hours. 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).

Technical measures: ACL should be stored in a cool (temperatures not to exceed 125 °F for 24hours), dry, well-ventilated area, segregated from incompatible chemicals. Storage conditions should comply with the requirements established by the National Fire Protection Association's NFPA 1 - Uniform Fire Code and/or NFPA 400 - Hazardous Materials Code and/or the International Code Council's (ICC) International Fire Code. Since both NFPA and ICC codes are used throughout the U.S., consult with local fire departments to determine which codes apply.

Incompatible Substances: ACLs are highly reactive oxidizing and chlorinating agents. Precautions should be taken to prevent the mixing of these products with other incompatible chemicals during storage, handling and manufacture. Some chemicals incompatible with ACLs include (but are not limited to): Strong acids or bases; Amino Compounds amines; amides; ammonia, and ammonium salts) and hydrazine's; Acetic acid and acetic anhydride; Alcohols (methyl, ethyl, isopropyl, etc.) and phenols; Alkenes and acetylene; Biuret; Calcium hypochlorite; Ethers; Fungicides; Glycerin; Mineral reducing agents (sulfides, bisulfites, thiosulfates, nitrites, cyanide salts, etc.); Oils and paints; Organic or mineral oxidizers (peroxides, perborates, percarbonates); Petroleum products (gasoline, kerosene, etc.); Urea. Substances not listed must be evaluated for compatibility prior to use.

Packaging Material: ACL products have excellent stability when they are properly packaged and stored; however, these materials can form enough chlorine-containing gases to cause deterioration of the container. Therefore, the standard shelf-life for packaged product (in bulk bags, plastic drums or pails) is two years. The one exception is for product in cardboard cases where the shelf-life is six months. These guidelines are based on potential deterioration of packaging and not on degradation of product.

Section 8: Exposure Control/Personal Protection

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Trichloroisocyanuric acid 87-90-1			

ENGINEERING CONTROLS: Provide ventilation sufficient to maintain exposure below the recommended limits.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant the use of a respirator.

SKIN PROTECTION: Wear impervious protective gloves. Wear protective gear as needed - apron, suit, boots.

EYE PROTECTION: Wear safety glasses with side shields (or goggles) and a face shield.

OTHER PROTECTIVE EQUIPMENT: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

HYGENIC PRACTICES: Do not eat, drink, or smoke in areas where this material is used. Avoid breathing vapors. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling. Wash hands before eating.

Section 9: Physical and Chemical Properties

Physical State: Solid Odor (threshold): Slight chlorine odor Solubility: Not Available Flammability: Not Available Flash Point: Not Applicable Lower & Upper Not Available Explosion/Flammability limit: pH: 2.5 - 205 @25°C (1% solution) Vapor Pressure (Evap. Rate): <1.5x10 ⁻⁵ mm Hg at 20°C (measured) Relative Density: Not Available	Color: White Melting/Freezing Point: 225 - 230°C (decomposes) Boiling Point: Not Available Auto-Ignition Temperature: Not Available Decomposition Temperature: 437°F (225°C) Partition Coefficient n- Not Applicable octanol/water (log value): Kinematic Viscosity: Not Applicable Density: 2.1 g/ml @25°C Specific Gravity: Not Available
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Section 10: Stability and Reactivity

Chemical Stability:

STABLE

Incompatible Materials

ACLs are highly reactive oxidizing and chlorinating agents. Precautions should be taken to prevent the mixing of these products with other incompatible chemicals during storage, handling and manufacture. Some chemicals incompatible with ACLs include (but are not limited to): Strong acids or bases; Amino Compounds (amines; amides; ammonia, and ammonium salts) and hydrazine's; Acetic acid and acetic anhydride; Alcohols (methyl, ethyl, isopropyl, etc.) and phenols; Alkenes and acetylene; Biuret; Calcium hypochlorite; Ethers; Fungicides; Glycerin; Mineral reducing agents (sulfides, bisulfites, thiosulfates, nitrites, cyanide salts, etc.); Oils and paints; Organic or mineral oxidizers (peroxides, perborates, percarbonates); Petroleum products (gasoline, kerosene,

Conditions to Avoid

ACL materials in themselves are very stable to static discharge, shock or vibration. They do not present a dust explosion hazard. Wet material may generate nitrogen trichloride, an explosion hazard. Nitrogen trichloride (NCl₃) can appear as a yellow, oily liquid or vapor. Any quantity of NCl₃ is potentially explosive. Liquid NCl₃ will explode in contact with certain organic impurities, when melting after having been frozen, from impact or supersonic vibration, or on heating to 60 °C or above. Vapor NCl₃ can be exploded or decomposed (to N₂ and Cl₂) when concentrations in air are as low as 0.3%. At this low concentration, however, the propagation rate is extremely slow, on the order of several minutes per foot. At concentrations of 3-4%, the detonation is explosive with an instantaneous pressure rise. There are no good data on what temperature or conditions are required to explode the gas. It is known that NCl₃ vapor (or vapor-air mixture) can be exploded by a spark or by temperature in excess of 100 °C.

Hazardous Decomposition Products

Chlorine, nitrogen, nitrogen trichloride, cyanogen chloride, Oxides of Carbon, Phosgene.

Hazardous Polymerization

Hazardous polymerization will not occur.

Section 11: Toxicology Information

Mixture Toxicity

Oral Toxicity LD50: 410mg/kg

Dermal Toxicity LD50: 2,020mg/kg

Inhalation Toxicity LC50: 51mg/L

Component Toxicity

87-90-1

Trichloroisocyanuric acid

Oral LD50: 406 mg/kg (Rat) Dermal LD50: 2,000 mg/kg (Rabbit) Inhalation LC50: 50 mg/L (Rat)

Routes of Entry:

Inhalation

Ingestion

Skin contact

Eye contact

Target Organs

Effects of Overexposure

TOXICITY:

Monosodium cyanurate was administered via drinking water to rats for 104 weeks at concentrations of 0, 400, 1200, 2400, and 5375 ppm (solubility limit). No compound-related effects on body weights, clinical signs of toxicity or food or water consumption were noted during the study . An increased incidence of gross lesions in the urinary tract, calculi in the kidney and lesions in the heart were observed in males receiving the highest dose level of 5375 ppm (solubility limit). The health effects seen in this study were due to precipitation of the test substance in the urinary tract when the test substance was fed at the solubility limit. Adverse health effects were not seen at lower doses where precipitation did not occur.

ACUTE TOXICITY:

Eye contact: 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 eye structures.

Skin contact: 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 .

Inhalation: 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.

CHRONIC TOXICITY:

Chronic Effects: None identified for the parent chemical. Based on animal studies, exposure to concentrations of monosodium cyanurate at the solubility limit may cause cardiovascular, kidney and urinary bladder effects .

CAS Number

Description

% Weight

Carcinogen Rating

None

N/A

Section 12: Ecological Information

Component Ecotoxicity

Trichloroisocyanuric acid

96 Hr LC50 *Lepomis macrochirus*: 0.13 - 0.5 mg/L ; 96 Hr LC50 *Oncorhynchus mykiss*: 0.06 - 0.11 mg/L

48 Hr EC50 *Daphnia magna*: 0.21 mg/L; 48 Hr EC50 *Daphnia magna*: 0.16 - 0.18 mg/L [Static]

Section 13: Disposal Considerations

Dispose of in accordance with local, state and federal regulations.

Section 14: Transportation Information

The following is for US DOT Highway Transportation. Other modes/jurisdictions may have different classifications and have not been disclosed in this section.

Non-bulk packages by ground and air shipments are regulated as oxidizers. Packages may be shipped as limited quantity if individually wrapped.

UN Code: UN2468

DOT Name: Trichloroisocyanuric Acid, Dry, Marine Pollutant

Hazard Class: 5.1

Packing Group: II

Section 15: Regulatory Information

EPA Reg. No. 57787-15

FIFRA information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

DANGER

CORROSIVE:

Causes irreversible eye damage and skin burns.

May be fatal if absorbed through skin.

May be fatal if inhaled.

Do not breathe dust or spray mists.

Irritating to nose and throat.

Harmful if swallowed.

This pesticide is toxic to fish and aquatic organisms.

TSCA 8(b) Inventory

87-90-1 Trichloroisocyanuric acid

Country

Regulation

All Components Listed

Section 16: Other Information

Date Prepared: 11/22/2024

Disclaimer

The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.