HAVILAND PRODUCTS COMPANY
SAFETY DATA SHEET

Section 1: Identification

Product Name: Vitalyse Rapid Release Granular Product Code: C007791

Haviland Consumer Products
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
Not recommended for: Uses not listed on the label

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	3	Gases>500+<=2500ppm, Vapors>2+<=10mg/l, Dusts&mists>0.5+<=1mg/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
H331	Toxic 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
P261	Avoid breathing 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
P310	Immediately call a POISON CENTER or doctor/physician

P311	Call a POISON CENTER or doctor/physician
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
Sodium dichloro-s-triazinetrione 2893-78-9 90% - 100%			
Water 7732-18-5 1% - 5%			
Sodium chloride 7647-14-5 0.1% - 1.0% Vapor Pressure: 1 mmHg			

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. Please refer to Section 11 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.

Interaction with Other Chemicals Which Enhance Toxicity: Contact with acids liberates toxic gas.

Section 5: Fire-fighting Measures

Extinguishing Media

Flood with copious amounts of water.

Unsuitable Extinguishing Media: 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

Fire Hazard: According to NFPA Code 400, this material is classified as a Class 2 Oxidizer. Class 2 Oxidizers will increase the burning rate of combustible materials with which they come in contact. In addition, they may cause spontaneous ignition when in contact with a combustible material. Wet material may generate nitrogen trichloride, an explosion hazard. If heated by outside source to temperatures above > 210 °C (410 °F), this product will undergo decomposition with the evolution of noxious gases but no visible flame.

Unusual Hazards: 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.

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

Fire Fighting: 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 neutralized to a non-oxidizing state. Contact OxyChem 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

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.

Recovery: Contain spilled material. Any spillage of this product 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 product 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 this product 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 this products waster, to alkaline aqueous solutions maintained at a pH of 10.5 (e.g. sodium hydroxide; sodium carbonate; or sodium sulfite). At this pH, the major fraction of chlorine is destroyed by chemical reactions between chlorine and Cyanuric acid contained in the waste of this product. 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 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.

Incompatible Substances: This product is 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 this product include (but are not limited to): Strong acids or bases;Amino Compounds(amines; amides; ammonia, and ammonium salts) and hydrazines; 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.

Section 8: Exposure Control/Personal Protection

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Sodium dichloro-s-triazinetrione 2893-78-9			
Water 7732-18-5			
Sodium chloride 7647-14-5			

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	**Color:** White
Odor (threshold): Slight Chlorine Odor	**Melting/Freezing Point:** Decomposes without Meliting
Solubility: 24.3g/100g @ 25 °C	**Boiling Point:** Not Available
Flammability: Not Flammable	**Auto-Ignition Temperature:** Not Available
Flash Point: Not Available	**Decomposition Temperature:** Decomposes above 210 °C
Lower & Upper Explosion/Flammability limit: Not Available	**Partition Coefficient n-octanol/water (log value):** Kow = 0
pH: 6 -7 @ 25 °C	**Kinematic Viscosity:** Not Available
Vapor Pressure (Evap. Rate): <0.06 Pa @ 20 °C	**Density:** Not Available
Relative Density: 1.98 g/mL @ 25 °C	**Specific Gravity:** Not Available
Bulk Density: 55 - 57 lbs/ft3 (loose)	

Section 10: Stability and Reactivity

Chemical Stability:

STABLE

Incompatible Materials

This product is 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 this product include (but are not limited to): Water,organic material. strong acids or bases; Amino Compounds (amines; amides; ammonia, and ammonium salts) and hydrazines; 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.

- Do not get water inside container. Wet material may generate nitrogen trichloride, an explosion hazard. Avoid contact with easily oxidizable organic material. Contact with acids liberates toxic gas.
- This product, in the presence of ammonia gas or aqueous solutions of ammonia will generate hazardous amounts of explosive nitrogen trichloride.
- Contamination with oils and greases may cause decomposition of this product with formation of CO_2, Cl_2, and other toxic gases.
- Hydrogen peroxide may react violently with this product, with liberation of oxygen.

Conditions to Avoid

This product is very stable to static discharge, shock or vibration. It does not present a dust explosion hazard. Wet material may generate nitrogen trichloride, an explosion hazard. Nitrogen trichloride (NCl_3) can appear as a yellow, oily liquid or vapor. Any quantity of NCl_3 is potentially explosive. Liquid NCl_3 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 NCl_3 can be exploded or decomposed (to N_2 and Cl_2) 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 NCl_3 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) : Rat LD_{50} 1,823mg/kg
(dermal) : Rabbit LD_{50} >2000mg/kg
(inhalation) : Rat LC 0.27 – 1.17mg/L (4hr)

Component Toxicity

2893-78-9 Sodium dichloro-s-triazinetrione
Oral LD50: 735 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

CAS Number	Description	% Weight	Carcinogen Rating
None			N/A

Section 12: Ecological Information

Component Ecotoxicity

Sodium dichloro-s-triazinetrione	96 Hr LC50 Lepomis macrochirus: 0.25 - 1 mg/L ; 96 Hr LC50 Lepomis macrochirus: 0.207 - 0.389 mg/L ; 96 Hr LC50 Oncorhynchus mykiss: 0.176 - 0.267 mg/L ; 96 Hr LC50 Oncorhynchus mykiss: 0.29 mg/L; 96 Hr LC50 Oncorhynchus mykiss: 0.13 - 0.36 mg/L 48 Hr EC50 Daphnia magna: 0.00018 - 0.00021 mg/L; 48 Hr EC50 Daphnia magna: 0.093 - 0.16 mg/L
Sodium chloride	96 Hr LC50 Lepomis macrochirus: 5560 - 6080 mg/L ; 96 Hr LC50 Lepomis macrochirus: 12946 mg/L ; 96 Hr LC50 Pimephales promelas: 6020 - 7070 mg/L ; 96 Hr LC50 Pimephales promelas: 7050 mg/L [semi-static]; 96 Hr LC50 Pimephales promelas: 6420 - 6700 mg/L ; 96 Hr LC50 Oncorhynchus mykiss: 4747 - 7824 mg/L 48 Hr EC50 Daphnia magna: 1000 mg/L; 48 Hr EC50 Daphnia magna: 340.7 - 469.2 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. This product may be shipped as "limited quantity" if shipped in containers less than 2lbs. otherwise see below.

UN Code: UN2465
DOT Name: Dichloroisocyanuric Acid, Dry
Hazard Class: 5.1
Packing Group: II

Section 15: Regulatory Information

EPA Reg. No. 57787-6-104234

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.
May be fatal if inhaled.
Harmful or fatal if swallowed or absorbed through skin.
Do not get in eyes, on skin or on clothing.
Do not breathe dust, vapor or spray mist.
This pesticide is toxic to fish and aquatic organisms.

CERCLA/SARA Hazardous Substances

SARA 313

This product contains the following EPCRA section 313 chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know-Act of 1986 (40 CFR 372):

This information must be included in all SDSs that are copied and distributed for this material.

TSCA 8(b) Inventory

7647-14-5 Sodium chloride
7732-18-5 Water
2893-78-9 Sodium dichloro-s-triazinetrione

Section 16: Other Information

Date Prepared: 10/25/2024

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.