




SAFETY DATA SHEET

1. Product and Company Identification

Product identifier	Vista Tab Dental Waterline Cleaner Tablets
Other means of identification	Not available
Recommended use	For the cleaning and control of microbial contaminants in Dental Unit Water Lines.
Recommended restrictions	None known.
Manufacturer for or Distributed by	Hu-Friedy Mfg. Co., LLC 3232 N. Rockwell St. Chicago, IL 60618-5982 US Phone: 773.975.6100 Fax: 773.868.3599 Emergency Phone: 1-800-535-5053 Outside US: 001-352-323-3500

2. Hazards Identification

Physical hazards	Not classified.	
Health hazards	Serious eye damage/eye irritation	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 3
OSHA defined hazards	Not classified.	
Label elements		
Signal word	Danger	
Hazard statement	Causes serious eye damage. Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.	
Precautionary statement		
Prevention	Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves. Wear eye/face protection.	
Response	Collect spillage. If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.	
Storage	Store away from incompatible materials.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	56.25% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 56.25% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.	

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Magnesium chloride		7786-30-3	38.5
Sodium bisulphate		7681-38-1	30
Sodium bicarbonate		144-55-8	25
Sodium chlorite		7758-19-2	4
Sodium chloride		7647-14-5	1
Sodium dichloroisocyanurate dihydrate		51580-86-0	1

Composition comments

Not applicable to DIN products. Refer to product label for active ingredient content.

4. First Aid Measures

Inhalation	Keep patient clam, remove to fresh air. If breathing difficulties develop, aid in breathing and seek medical attention.
Skin contact	If on skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Obtain medical attention immediately.
Eye contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids open to facilitate rinsing. Obtain medical attention immediately.
Ingestion	If person is conscious and can swallow, give two glasses of water. If vomiting occurs, keep head lower than hips to prevent aspiration. Immediate medical attention required.
Most important symptoms/effects, acute and delayed	The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further important symptoms and effects are so far not known.
Indication of immediate medical attention and special treatment needed	Treat patient symptomatically.
General information	Remove contaminated clothing immediately and wash before reuse. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Eye and skin irritant.

5. Fire Fighting Measures

Suitable extinguishing media	Flood with water. Water spray.
Unsuitable extinguishing media	Do not use carbon dioxide or organic compounds.
Specific hazards arising from the chemical	Upon exposure to water or water vapour, chlorine dioxide gas is released. May cause fire or explosion; strong oxidizer. Chlorine dioxide will dissolve harmlessly in flooding amounts of water.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	In the event of fire, cool tanks with water spray. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out.
Specific methods	Cool containers exposed to flames with water until well after the fire is out.
General fire hazards	May intensify fire; oxidizer.
Hazardous combustion products	May include and are not limited to: Decomposition releases oxygen which may intensify fire. Hydrogen chloride. Oxides of carbon.
Explosion data	
Sensitivity to mechanical impact	Not available.
Sensitivity to static discharge	Not available.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Ensure adequate ventilation. Wear appropriate protective equipment and clothing during clean-up. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk. Wear appropriate protective equipment and clothing during clean-up. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. For waste disposal, see section 13 of the SDS.
Environmental precautions	Do not discharge into lakes, streams, ponds or public waters. Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution. Avoid release to the environment.

7. Handling and Storage

Precautions for safe handling	Avoid direct contact with water. Take precautionary measures against static discharge. Do not get this material in contact with eyes. Provide adequate ventilation. Avoid agitation to minimize dust production. Avoid release to the environment. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store away from incompatible materials (see Section 10 of the SDS). Store away from heat, flames, sparks, and all other sources of ignition. Store in tightly closed original container in a dry and cool place. Suitable materials for containers: High density polyethylene (HDPE) or Low density polyethylene (LDPE).

8. Exposure Controls/Personal Protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Exposure guidelines	This material does not have established exposure limits.
Appropriate engineering controls	Ensure adequate ventilation. Attempts should be made to eliminate all contact with skin and eyes, and to limit inhalation exposure.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles) and a face shield.
Skin protection	
Hand protection	Chemical resistant gloves.
Other	Wear suitable protective clothing. As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
Thermal hazards	Not available.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Avoid contact with the skin and the eyes.

9. Physical and Chemical Properties

Appearance	Tablet
Physical state	Solid.
Form	Solid.
Color	Blue
Odor	Slight chlorine.
Odor threshold	Not available.
pH	6 - 7
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available
Pour point	Not available.
Specific gravity	Not available
Partition coefficient (n-octanol/water)	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	Soluble
Auto-ignition temperature	Not available
Decomposition temperature	356 °F (180 °C)
Viscosity	Not available.
Other information	
Bulk density	1.5 g/cm ³

10. Stability and Reactivity

Reactivity	Upon exposure to water or water vapour, chlorine dioxide gas is released. Does not form flammable gases in the presence of water per the Manual of Tests and Criteria, Test N.5.
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Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Contact with incompatible materials. Avoid heat, sparks, open flames and other ignition sources. Avoid dust generation. Avoid direct sunlight. Moisture.
Incompatible materials	Water. Strong acids. Strong oxidizers. Reducing agents. Combustible materials. Caustics.
Hazardous decomposition products	May include and are not limited to: Chlorine oxides Chlorine. Sulfur oxide. Hydrogen chloride. Oxides of carbon. Oxygen.

11. Toxicological Information

Routes of exposure Eye, Skin contact, Inhalation, Ingestion.

Information on likely routes of exposure

Ingestion	May cause stomach distress, nausea or vomiting. May be harmful if swallowed.
Inhalation	May cause irritation to the respiratory system.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity

Product	Species	Test Results
Vista Tab Dental Waterline Cleaner Tablets (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 5000 mg/kg
<i>Oral</i>		
LD50	Rat	2000 - 5000 mg/kg

Components	Species	Test Results
Magnesium chloride (CAS 7786-30-3)		
Acute		
<i>Dermal</i>		
LD50	Not available	
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Rat	2800 mg/kg

Sodium bicarbonate (CAS 144-55-8)		
Acute		
<i>Dermal</i>		
LD50	Not available	
<i>Inhalation</i>		
LC50	Rat	> 4.7 mg/l
<i>Oral</i>		
LD50	Mouse	3360 mg/kg
	Rat	4220 mg/kg

Sodium bisulphate (CAS 7681-38-1)		
Acute		
<i>Dermal</i>		
LD50	Not available	
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Rat	2490 mg/kg

Components	Species	Test Results
Sodium chloride (CAS 7647-14-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	10000.1 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 21000 mg/m3
<i>Oral</i>		
LD50	Mouse	4000 mg/kg
	Rat	3000 mg/kg
Sodium chlorite (CAS 7758-19-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	134 mg/kg
<i>Inhalation</i>		
LC50	Rat	0.3 mg/l, 4 Hours
<i>Oral</i>		
LD50	Guinea pig	300 mg/kg
	Mouse	350 mg/kg
	Rat	165 mg/kg
Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 3160 mg/kg > 2000 mg/kg 11000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 1637.5 mg/m3/4H > 1481 mg/m3, 4 hours > 847.5 mg/m3, 4 hours
<i>Oral</i>		
LD50	Rat	1670 mg/kg 1420 mg/kg 620 mg/kg
Skin corrosion/irritation	Non-irritating based on test data.	
Exposure minutes	Not available.	
Erythema value	Not available.	
Oedema value	Not available.	
Serious eye damage/eye irritation	Causes serious eye damage.	
Corneal opacity value	Not available.	
Iris lesion value	Not available.	
Conjunctival reddening value	Not available.	
Conjunctival oedema value	Not available.	
Recover days	Not available.	
Respiratory or skin sensitization		
Respiratory sensitization	Not classified.	
Skin sensitization	Not a skin sensitizer based on test data.	
Germ cell mutagenicity	This product is not expected to cause mutagenic effects. Non-hazardous by WHMIS/OSHA criteria.	
Mutagenicity	This product is not expected to cause mutagenic effects. Non-hazardous by WHMIS/OSHA criteria.	

Carcinogenicity Not classified or listed by IARC, NTP, OSHA and ACGIH.
Non-hazardous by WHMIS/OSHA criteria.

IARC Monographs. Overall Evaluation of Carcinogenicity

Sodium chlorite (CAS 7758-19-2)

Volume 52 - 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.
Non-hazardous by WHMIS/OSHA criteria.

Teratogenicity Non-hazardous by WHMIS/OSHA criteria.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not classified.

Chronic effects Not classified. Non-hazardous by WHMIS/OSHA criteria.

Further information Not available.

Name of Toxicologically Synergistic Products Not available.

12. Ecological Information

Ecotoxicity This product has not been tested. The hazards have been derived from the properties of the individual components. See below

Very toxic to aquatic life. Harmful to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Product	Species	Test Results
Vista Tab Dental Waterline Cleaner Tablets (CAS Mixture)		
Crustacea	LC50 Daphnia magna	0.1 - 1 mg/l
Fish	LC50 Fish	> 100 mg/l, (Brachydanio rerio)

Components	Species	Test Results
Magnesium chloride (CAS 7786-30-3)		
Algae	IC50 Algae	2200 mg/L, 72 Hours
Crustacea	EC50 Daphnia	1400 mg/L, 48 Hours
Aquatic		
Crustacea	EC50 Calanoid copepod (Eudiaptomus padanus padanus)	95 - 342 mg/l, 48 hours
Fish	LC50 Fathead minnow (Pimephales promelas)	1580 - 2740 mg/l, 96 hours
Sodium bicarbonate (CAS 144-55-8)		
Crustacea	EC50 Daphnia	2350 mg/L, 48 Hours
Aquatic		
Fish	LC50 Western mosquitofish (Gambusia affinis)	7550 mg/l, 96 hours
Sodium bisulphate (CAS 7681-38-1)		
Crustacea	EC50 Daphnia	190 mg/L, 48 Hours
Sodium chloride (CAS 7647-14-5)		
Crustacea	EC50 Daphnia	1000 mg/L, 48 Hours
Aquatic		
Crustacea	EC50 Water flea (Daphnia magna)	340.7 - 469.2 mg/l, 48 hours
Fish	LC50 Fathead minnow (Pimephales promelas)	6020 - 7070 mg/l, 96 hours
Sodium chlorite (CAS 7758-19-2)		
Crustacea	EC50 Daphnia	0.026 mg/L, 48 Hours
Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0)		
Aquatic		
Crustacea	EC50 Water flea (Daphnia magna)	0.15 mg/l, 48 hours
Fish	LC50 Rainbow trout, donaldson trout (Oncorhynchus mykiss)	0.29 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil Not expected. This product has not been tested.

Mobility in general	Not available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations. Wastes should be tested using appropriate TCLP analysis to determine applicable waste numbers. Do not contaminate ponds, waterways or ditches with chemical or used container. Do not allow this material to drain into sewers/water supplies.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number	UN3077
Proper shipping name	Environmentally hazardous substances, solid, n.o.s. (Sodium chlorite)
Hazard class	9
Packing group	III
Special provisions	8, 146, 335, A112, B54, IB8, IP3, N20, T1, TP33

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number	UN3077
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Sodium chlorite)
Hazard class	9
Packing group	III
Special provisions	16

IATA/ICAO (Air)

Basic shipping requirements:

UN number	UN3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Sodium chlorite)
Hazard class	9
Packing group	III

IMDG (Marine Transport)

Basic shipping requirements:

UN number	UN3077
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Sodium chlorite)
Hazard class	9
Packing group	III

DOT; IATA; IMDG; TDG



15. Regulatory Information

Canadian federal regulations	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. NOT approved for use in Canada without proper registration. This product requires DIN registration prior to sale in Canada.
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Canada Priority Substances List (Second List): Listed substance

Magnesium chloride (CAS 7786-30-3) Listed.
Sodium chloride (CAS 7647-14-5) Listed.

Canada WHMIS Ingredient Disclosure: Threshold limits

Sodium bisulphate (CAS 7681-38-1) 1 %
Sodium chlorite (CAS 7758-19-2) 1 %
Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0) 1 %

WHMIS classification Exempt – DIN Registration Required

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

PRECAUTIONARY STATEMENTS:

Hazard to humans and domestic animals.

Danger

Corrosive.

Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing before reuse.

EPA Reg. # 70060-25-75372

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - Yes

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Water Act (CWA) Section 112(r) (40 CFR 68.130) Hazardous substance

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

US state regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US - New Jersey RTK - Substances: Listed substance

Sodium chlorite (CAS 7758-19-2) Listed.
Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0) Listed.

US - Texas Effects Screening Levels: Listed substance

Magnesium chloride (CAS 7786-30-3) Listed.

Sodium bicarbonate (CAS 144-55-8) Listed.
 Sodium bisulphate (CAS 7681-38-1) Listed.
 Sodium chloride (CAS 7647-14-5) Listed.
 Sodium chlorite (CAS 7758-19-2) Listed.

US. Massachusetts RTK - Substance List

Sodium chlorite (CAS 7758-19-2) Listed.
 Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0) Listed.

US. Pennsylvania RTK - Hazardous Substances

Sodium chlorite (CAS 7758-19-2) Listed.
 Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0) Listed.

US. Rhode Island RTK

Not regulated.

Inventory status

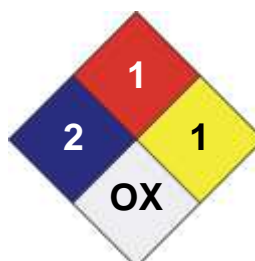
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 2
FLAMMABILITY	1
PHYSICAL HAZARD	1
PERSONAL PROTECTION	X



Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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Further information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Prepared by Dell Tech Laboratories, Ltd. Phone: (519) 858-5021

Other information This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).
 This SDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.