

# SAFETY DATA SHEET

according to US Regulation 29 CFR 1910.1200 and the Canadian HPA

# 90 years of HTH® Perfect Pools Ulimate Mineral Brilliance Chlorinating Granules

Revision Date 2020.03.12	Print Date 2020.09.24
: 90 years of HTH® Perfect Pools Ulir rinating Granules	nate Mineral Brilliance Chlo-
<ul> <li>Innovative Water Care, LLC 1400 Bluegrass Lakes Parkway Alpharetta, GA 30004</li> </ul>	
<ul> <li>1-800-511-6737 (Outside the USA: sds@sigurawater.com</li> <li>1-800-654-6911 (Outside the USA: </li> </ul>	,
	<ul> <li>90 years of HTH® Perfect Pools Ulir rinating Granules</li> <li>Innovative Water Care, LLC 1400 Bluegrass Lakes Parkway Alpharetta, GA 30004</li> <li>1-800-511-6737 (Outside the USA: 1</li> </ul>

### Recommended use of the chemical and restrictions on use

: Water treatment chemical

### **SECTION 2. HAZARDS IDENTIFICATION**

GHS Classification		
Oxidizing solids	:	Category 2
Acute toxicity (Oral)	:	Category 4
Skin corrosion	:	Category 1B
Serious eye damage	:	Category 1
Acute toxicity (Inhalation)	:	Category 3
Specific target organ toxicity - single exposure	:	Category 3 (Respiratory system)
GHS label elements		
Hazard pictograms	:	



Signal word	: Danger
Hazard statements	<ul> <li>H272 May intensify fire; oxidizer.</li> <li>H302 Harmful if swallowed.</li> <li>H314 Causes severe skin burns and eye damage.</li> <li>H331 Toxic if inhaled.</li> <li>H335 May cause respiratory irritation.</li> </ul>
Precautionary statements	<ul> <li>Prevention: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P220 Keep/ Store away from clothing/ combustible materials. P221 Take any precaution to avoid mixing with combustibles. P260 Do not breathe vapours. P264 Wash hands thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. <b>Response:</b> P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor i 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 im- mediately all contaminated clothing. Rinse skin with water/ showen 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. P310 Immediately call a POISON CENTER/ doctor. P363 Wash contaminated clothing before reuse. P370 + P378 In case of fire: Use water spray to extinguish. <b>Storage:</b> P403 + P233 Store in a well-ventilated place. Keep container tight ly closed. P405 tore locked up. <b>Disposal:</b> P501 Dispose of contents/container in accordance with local regu- lation.</li> </ul>

## Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

: Mixture



Chemical name / Synonyms	CAS-No.	Concentration (% w/w)
Calcium hypochlorite	7778-54-3	43 - 60
Calcium dihydroxide	1305-62-0	0 - 6
Calcium chloride dihydrate	10035-04-8	0 - 4
Calcium chlorate	10137-74-3	0 - 4
Aluminum sulfate (2:3)	10043-01-3	0 - 2

### **SECTION 4. FIRST AID MEASURES**

General advice	Call a poison control center or doctor for treatmen 24-hour emergency medical assistance, call Arch Emergency Action Network at 1-800-654-6911. H product container or label with you when calling a	Chemical ave the
If inhaled	trol center or doctor, or going for treatment. IF INHALED: Move person to fresh air. If person is ing, call 911 or an ambulance, then give artificial r preferably mouth-to-mouth if possible. Call a poise center or doctor for further treatment advice.	espiration,
In case of skin contact	IF ON SKIN OR CLOTHING: Take off contaminat Rinse skin immediately with plenty of water for 15 Call a poison control center or doctor for treatmen	-20 minutes.
In case of eye contact	IF IN EYES: Hold eye open and rinse slowly and g water for 15-20 minutes. Remove contact lenses, after the first 5 minutes, then continue rinsing eye son control center or doctor for treatment advice.	if present,
If swallowed	IF SWALLOWED: Call a poison control center or mediately for treatment advice. Have person sip a water if able to swallow. Do not induce vomiting u do so by a poison control center or doctor. Do not thing by mouth to an unconscious person.	glass of nless told to
Most important symptoms and ef- fects, both acute and delayed	None known.	
Notes to physician	Probable mucosal damage may contraindicate the tric lavage.	e use of gas-

### **SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media Specific hazards during firefighting	<ul> <li>Water only.</li> <li>Do not use dry extinguishers containing ammonium compounds.</li> <li>May intensify fire; oxidizer.</li> </ul>
Further information	: Use water to cool containers exposed to fire. See Section 6 for protective equipment for fire fighting.

## SECTION 6. ACCIDENTAL RELEASE MEASURES



Personal precautions, protective equipment and emergency proce- dures	:	Response to a large quantity spill (100 pounds or greater) or when dusting or decomposition gas exposure could occur requires the use of a positive pressure full face supplied air repirator or self contained breathing apparatus (SCBA), chem- ical resistant gloves, coveralls and boots. In case of fire, this personal protective equipment should be used in addition to normal fire fighter equipment. Hazardous concentrations in air may be found in local spill area and immediately downwind. Remove all sources of ignition. Stop source of spill as soon as possible and notify appropriate personnel. Contact 1-800-654-6911 immediately. DANGER: All spills of this product should be treated as contaminated. Contaminated product may initiate a chemical reaction that may spontane- ously ignite any combustible material present, resulting in a fire of great intensity. In case of a spill, separate all spilled product from packaging, debris and other material. Using a clean broom or shovel, place all spilled product into plastic bags, and place those bags into a clean, dry disposal contain- er, properly marked and labeled. Disposal containers made of plastic or metal are recommended. Do not seal disposal con- tainers tightly. Immediately remove all product in disposal containers to an isolated area outdoors. Place all damaged packaging material in a disposal container of water to assure decontamination (i.e. removal of all product) before disposal. Place all undamaged packaging in a clean, dry container properly marked and labeled. Call for disposal procedures. For disposal considerations see section 13.
Environmental precautions	:	If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for contain- ment and cleaning up	:	Sweep up and shovel into suitable containers for disposal. Do not flush into surface water or sanitary sewer system. Avoid dust formation.

## SECTION 7. HANDLING AND STORAGE

Advice on safe handling	: Avoid inhalation of dust and fumes. Do not take internally. Avoid contact with skin, eyes and cloth- ing. Upon contact with skin or eyes, wash off with water. Remove contaminated clothing and wash before reuse.
Conditions for safe storage	: Keep product tightly sealed in original containers. Store prod- uct in a cool, dry, well-ventilated area. Store away from com- bustible or flammable products. Keep product packaging clean and free of all contamination, including, e.g. other pool treatment products, acids, organic materials, nitrogen- containing compounds, dry powder fire extinguishers (contain- ing mono-ammonium phosphate), oxidizers, all corrosive liq-



Materials to avoid	<ul> <li>uids, flammable or combustible materials, etc.</li> <li>Do not allow product to come in contact with other materials, including e.g. other pool treatment products, acids, organic materials, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, all corrosive liquids, flammable or combustible materials, etc A chemical reaction with such substances can cause a fire.</li> </ul>
Further information on storage sta- bility	: Average daily temperature of 35° C / 95° F. Storage above this temperature may result in rapid decomposition, evolution of chlorine gas and heat sufficient to ignite combustible products.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissi- ble concentra- tion	Basis
Calcium dihydroxide	1305-62-0	TWA	5 mg/m3	ACGIH
		REL	5 mg/m3	NIOSH/GUIDE
		PEL (Total dust.)	15 mg/m3	OSHA_TRANS
		PEL (Respir- able frac- tion.)	5 mg/m3	OSHA_TRANS
		TWA	5 mg/m3	Z1A

Components with workplace control parameters

Engineering measures	: Local exhaust ventilation or other engineering normally required when handling or using this keep airborne exposures below the TLV, PEL ommended exposure limit.	product to
Personal protective equipment		
Respiratory protection Hand protection	<ul> <li>Wear a NIOSH approved respirator if levels at sure limits are possible.</li> <li>A NIOSH approved full-face air purifying respir with combination chlorine/P100 cartridges. Air rators should not be used in oxygen deficient of pheres or if exposure concentrations exceed to the published limit.</li> </ul>	ator equipped purifying respi- or IDLH atmos-
Remarks	: Wear impervious gloves to avoid skin contact. ous suit is recommended if exposure is possib portion of the body.	
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Eye protection Skin and body protection	<ul> <li>Use chemical goggles.</li> <li>Neoprene, Nitrile, Natural rubber (This includes: gloves, boots, apron, protective suit)</li> </ul>
Protective measures	: An eye wash and safety shower should be provided in the immediate work area.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Colour Odour Odour Threshold pH		powder white Chlorine-like no data available 10 - 10.7 solution
Melting point/freezing point	:	Not applicable
Boiling point/boiling range Flash point	:	no data available Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	This product is chemically reactive with many substances. Any contamination of the product with other substances by spill or otherwise may result in a chemical reaction and fire.
Flammability (liquids) Upper explosion limit	:	no data available Not applicable
Lower explosion limit	:	Not applicable
Vapour pressure	:	Not applicable
Relative vapour density Relative density	:	no data available Not applicable
Density	:	0.9 - 1.1 g/cm3
Water solubility	:	ca. 180 g/l
Partition coefficient: n-octanol/water Auto-ignition temperature	:	no data available Not applicable
Decomposition temperature	:	338 - 356 °F / 170 - 180 °C
Viscosity, dynamic Viscosity, kinematic Oxidizing properties	:	no data available no data available Oxidizing



## SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	:	NFPA Oxidizer Class: Meets the criteria of an NFPA Class 1 Oxidizer
Conditions to avoid	:	Do not store next to heat source, in direct sunlight, or elevated storage temperature. Do not store where the daily average temperature exceeds 95 °F. Prevent ingress of humidity and moisture into container or package. Always close the lid.
Incompatible materials	:	This product is chemically reactive with many substances, including, e.g., other pool treatment products, acids, organics, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, corrosive ,flammable or combustible materials. Do not allow product to contact any foreign matter, including other water treatment products. Contamination or improper use may cause a fire of great intensity, explosion or the release of toxic gases. If product is exposed to small amounts of water, it can react violently to produce heat and toxic gases and spatter.
Hazardous decomposition products	:	Chlorine

### SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of expo- sure	:	Inhalation, skin, eyes, ingestion
Acute toxicity Acute oral toxicity	:	LD50 (Rat): approximately 850 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 2.04 mg/l Exposure time: 1 h Remarks: (Nose Only)
		LC50 (Rat): > 0.51 mg/l Exposure time: 4 h Remarks: (Nose Only)
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg

### Skin corrosion/irritation

Remarks: DRY MATERIAL CAUSES MODERATE SKIN IRRITATION. WET MATERIAL CAUSES SKIN BURNS.

## Serious eye damage/eye irritation

Result: Corrosive to eyes

#### Respiratory or skin sensitisation



Remarks: This material is not known or reported to be a skin or respiratory sensitizer.

Carcinogenicity	
IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA#s list of regulated carcinogens.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcino- gen by NTP.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcin- ogen by ACGIH.
Further information	
Remarks: no data available	

## **SECTION 12. ECOLOGICAL INFORMATION**

<b>Ecotoxicity</b> no data available	
Persistence and degradability no data available	
Bioaccumulative potential no data available	
Mobility in soil no data available	
Other adverse effects	
Ozone-Depletion Potential	<ul> <li>Regulation: US. EPA Clean Air Act (CAA) Section 602 Ozone- Depleting Substances (40 CFR 82, Subpt. A, App A &amp; B) Remarks: This product neither contains, nor was manufac- tured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).</li> </ul>
Additional ecological information	: Highly toxic to fish and other aquatic organisms.

## SECTION 13. DISPOSAL CONSIDERATIONS



Disposal methods	
Waste from residues	<ul> <li>If this product becomes a waste, it meets the criteria of a haz- ardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number: D001. As a hazardous solid waste, it must be disposed of in accord- ance with local, state and federal regulations.</li> </ul>

## **SECTION 14. TRANSPORT INFORMATION**

### DOT

	UN number Proper shipping name Transport hazard class Packing group Labels Emergency Response Guidebook Number Environmental hazards	:	2880 Calcium hypochlorite, hydrated mixtures 5.1 II 5.1 140 yes
TDG			
	UN number Proper shipping name Transport hazard class Packing group Labels Environmental hazards	:	2880 CALCIUM HYPOCHLORITE, HYDRATED MIXTURE 5.1 II 5.1 yes
ΙΑΤΑ			
	UN number Proper shipping name Transport hazard class Packing group Labels Environmental hazards	:	2880 Calcium hypochlorite, hydrated mixture 5.1 II 5.1 yes
IMDG			
	UN number Proper shipping name Transport hazard class Packing group Labels EmS Number 1 EmS Number 2 Environmental hazards	: :	2880 Calcium hypochlorite, hydrated mixture 5.1 II 5.1 F-H S-Q Marine pollutant: yes



### ADR

RID

UN number Proper shipping name Transport hazard class Packing group Classification Code Hazard Identification Number Labels Environmental hazards	<ul> <li>2880</li> <li>CALCIUM HYPOCHLORITE, HYDRATED MIXTURE</li> <li>5.1</li> <li>II</li> <li>O2</li> <li>50</li> <li>5.1</li> <li>yes</li> </ul>
UN number Proper shipping name Transport hazard class Packing group Classification Code Hazard Identification Number Labels Environmental hazards	<ul> <li>2880</li> <li>CALCIUM HYPOCHLORITE, HYDRATED MIXTURE</li> <li>5.1</li> <li>II</li> <li>O2</li> <li>50</li> <li>5.1</li> <li>yes</li> </ul>
Special precautions for user	: none
Transport in bulk according to An- nex II of MARPOL 73/78 and the IBC Code	: Not applicable

### **SECTION 15. REGULATORY INFORMATION**

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.

EPA Registration number:Signal word:Hazard statements:	1258-1346 DANGER! Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. This pesticide is toxic to fish and aquatic organisms.
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### EPCRA - Emergency Planning and Community Right-to-Know Act

### **CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ	Calculated
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		(lbs)	product RQ (lbs)
Calcium hypochlorite	7778-54-3	10	17

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

### SARA 311/312 Hazards

See above: SECTION 2. Hazard Identification-GHS Classification

### **SARA 313**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

### **Clean Water Act**

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Components	CAS-No.	Component RQ (lbs)
Calcium hypochlorite	7778-54-3	10
Aluminum sulfate (2:3)	10043-01-3	5000

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Components	CAS-No.	Concentration
Calcium hypochlorite	7778-54-3	43 - 60 %
Aluminum sulfate (2:3)	10043-01-3	0 - 2 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307



### **US State Regulations**

### Massachusetts Right To Know

Components	CAS-No.
Calcium hypochlorite	7778-54-3
Calcium dihydroxide	1305-62-0
Calcium chlorate	10137-74-3
Calcium carbonate	471-34-1
Aluminum sulfate (2:3)	10043-01-3

### Pennsylvania Right To Know

Components	CAS-No.
Calcium hypochlorite	7778-54-3
Sodium chloride	7647-14-5
Magnesium sulfate heptahydrate	10034-99-8
Calcium dihydroxide	1305-62-0
Calcium chloride dihydrate	10035-04-8
Calcium chlorate	10137-74-3
Calcium carbonate	471-34-1

### New Jersey Right To Know

Components	CAS-No.
Calcium hypochlorite	7778-54-3
Sodium chloride	7647-14-5
Magnesium sulfate heptahydrate	10034-99-8
Calcium dihydroxide	1305-62-0
Calcium chlorate	10137-74-3
Calcium carbonate	471-34-1
Aluminum sulfate (2:3)	10043-01-3

### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### **Canadian lists**

NPRI

Canadian National Pollutant Release Inventory (NPRI): No component is listed on NPRI.

### The components of this product are reported in the following inventories:

TSCA : This

: This is an EPA registered pesticide.

### **SECTION 16. OTHER INFORMATION**



### Full text of other abbreviations

ACGIH	:	US. ACGIH Threshold Limit Values
NIOSH/GUIDE	:	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
OSHA_TRANS	:	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
Z1A	:	US. OSHA Table Z-1-A (29 CFR 1910.1000)

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx -Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR -(Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH -Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

#### **Revision Date**

#### : 2020.03.12

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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