

**HTH CHLORINATING GRANULES**

Version 1.0

MSDS Number: 000000022366

Revision Date: 04/22/2015

**SECTION 1. IDENTIFICATION**

Product name : HTH Chlorinating Granules

Product code : 000000022366

**Manufacturer or supplier's details**Company name of supplier : Arch Chemicals, Inc.  
90 Boroline Road  
Allendale, NJ  
07401Telephone : FOR ANY EMERGENCY, CALL 24 HOURS/7DAYS: 1-800-654-6911 (OUTSIDE USA: 423-780-2970) FOR ALL  
TRANSPORTATION ACCIDENTS, CALL CHEMTREC: 1-800-424-9300 FOR ALL MSDS QUESTIONS & REQUESTS: 1-800-511-MSDS

Emergency telephone number : ACEAN - DAY OR NIGHT: (800) 654-6911

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

Recommended 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

Acute toxicity (Oral) : Category 4

**GHS Label element**

Hazard pictograms



Signal word : Danger

Hazard statements : H272 May intensify fire; oxidiser.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H331 Toxic if inhaled.

## HTH CHLORINATING GRANULES

Version 1.0

MSDS Number: 000000022366

Revision Date: 04/22/2015

## Precautionary statements

: **Prevention:**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P220 Keep/Store away from clothing/ combustible materials.

P221 Take any precaution to avoid mixing with combustibles.

P260 Do not breathe vapours.

**Response:**

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.

**Storage:**

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

P405 Store locked up.

**Disposal:**

Dispose of contents/container in accordance with local regulation.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

## Chemical nature

: Hypochlorite Mixture

**Hazardous components**

Chemical Name	CAS-No.	Concentration (%)
Calcium hypochlorite	7778-54-3	40 - 55
Sodium chloride	7647-14-5	5 - 15
Calcium chlorate	10137-74-3	0 - 4
Calcium chloride	10043-52-4	0 - 4
Calcium dihydroxide	1305-62-0	0 - 5
Calcium carbonate	471-34-1	0 - 4
magnesium sulphate heptahydrate	10034-99-8	25 - 35
Water	7732-18-5	17 - 22

**SECTION 4. FIRST AID MEASURES**

## General advice

: Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

## If inhaled

: IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**HTH CHLORINATING GRANULES**

Version 1.0

MSDS Number: 000000022366

Revision Date: 04/22/2015

- In case of skin contact : IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- In case of eye contact : IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- If swallowed : IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- Notes to physician : Probable mucosal damage may contraindicate the use of gastric lavage.

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**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Water only.  
Do not use dry extinguishers containing ammonium compounds.
- Flammability (solid, gas) : This product contains an ingredient (calcium hypochlorite) which is both a strong oxidizer and is chemically reactive with many substances. Strong oxidizers are capable of intensifying a fire once started. Because of this, any contamination of the product with other substances by spill or otherwise should be avoided. Also see section 7., Product is not known to be flammable, combustible or pyrophoric., NFPA Oxidizer Class: Meets the criteria of an NFPA Class 1 Oxidizer
- Further information : Use water to cool containers exposed to fire. See Section 6 for protective equipment for fire fighting.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : 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 respirator or self contained breathing apparatus (SCBA), chemical resistant gloves, coveralls and boots. In case of fire, this personal protective equipment should be used in addition to normal fire fighter equipment.

**Environmental precautions**

- Air : Vapors may be suppressed by the use of water fog.  
All water utilized to assist in fume suppression, decontamination or fire suppression may be contaminated and must be contained before disposal and/or treatment.

## HTH CHLORINATING GRANULES

Version 1.0

MSDS Number: 000000022366

Revision Date: 04/22/2015

- Water : This product is heavier than water.  
This material is soluble in water.  
Monitor all exit water for available chlorine and pH. Advise local authorities of any contaminated water release.
- Soil : 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 spontaneously 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 container, properly marked and labeled. Disposal containers made of plastic or metal are recommended. Do not seal disposal containers 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.

**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 clothing.  
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 product in a cool, dry, well-ventilated area. Store away from combustible 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 (containing mono-ammonium phosphate), oxidizers, all corrosive liquids, flammable or combustible materials, etc.
- Materials to avoid : 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.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Calcium hypochlorite	7778-54-3	TWA	1 mg/m <sup>3</sup>	ARCH OEL *
Calcium dihydroxide	1305-62-0	TWA	5 mg/m <sup>3</sup>	ACGIH
		REL	5 mg/m <sup>3</sup>	NIOSH/GUID E
		PEL (Total dust.)	15 mg/m <sup>3</sup>	OSHA_TRANS

## HTH CHLORINATING GRANULES

Version 1.0

MSDS Number: 000000022366

Revision Date: 04/22/2015

		PEL (Respirable fraction.)	5 mg/m3	OSHA_TRA NS
		TWA	5 mg/m3	Z1A
Calcium carbonate	471-34-1	REL (Total)	10 mg/m3	NIOSH/GUID E
		REL (Respirable.)	5 mg/m3	NIOSH/GUID E
		PEL (Total dust.)	15 mg/m3	OSHA_TRA NS
		PEL (Respirable fraction.)	5 mg/m3	OSHA_TRA NS
		TWA (Total dust.)	15 mg/m3	Z1A
		TWA (Respirable fraction.)	5 mg/m3	Z1A

**Engineering measures**

: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to keep airborne exposures below the TLV, PEL or other recommended exposure limit.

**Personal protective equipment**

## Respiratory protection

: Wear a NIOSH approved respirator if levels above the exposure limits are possible.  
A NIOSH approved full-face air purifying respirator equipped with combination chlorine/P100 cartridges. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.  
A NIOSH approved air purifying respirator equipped with combination acid-gas/organic vapor cartridge and P95 filter. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.

## Hand protection

## Remarks

: Wear impervious gloves to avoid skin contact. A full impervious suit is recommended if exposure is possible to a large portion of the body.

## Eye protection

: Use chemical goggles.

## Skin and body protection

: Nitrile  
Natural rubber  
Neoprene (This includes: gloves, boots, apron, protective suit)

## Protective measures

: An eye wash and safety shower should be provided in the immediate work area.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

## Appearance

: granules

## HTH CHLORINATING GRANULES

Version 1.0

MSDS Number: 000000022366

Revision Date: 04/22/2015

Colour	: white
Odour	: Chlorine-like
pH	: 10 - 10.8, (1% solution in neutral, distilled water) (@ 25 Deg. C)
Boiling point/boiling range	: Not applicable
Flash point	: Not applicable
Evaporation rate	: Not applicable
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapour pressure	: Not applicable (@ 25 Deg. C)
Relative vapour density	: Not applicable
Relative density	: Not applicable
Density	: 0.8 g/cm <sup>3</sup>
Solubility(ies)	
Water solubility	: Approximately 18%, (@ 25 Deg. C), Product also contains calcium hydroxide and calcium carbonate which will leave a residue.
Partition coefficient: n-octanol/water	: Not applicable
Decomposition temperature	: 170 - 180 °C
Oxidizing properties	: Product has oxidizing properties.
Molecular weight	: 143 g/mol Method: (Active ingredient)

**SECTION 10. STABILITY AND REACTIVITY**

Possibility of hazardous reactions	: Product is not sensitive to mechanical shock or impact. Product is not sensitive to electrical static discharge. Product will not undergo hazardous polymerization. Product is an NFPA Class 1 oxidizer. Not pyrophoric. Not an organic peroxide. If subjected to excessive temperatures, the product may undergo rapid decomposition, evolution of chlorine gas, and heat sufficient to ignite combustible substances. If product is exposed to small amounts of water, it can react violently to produce heat and toxic gases and spatter. Use copious amounts of water for fires involving this product.
Conditions to avoid	: Do not store next to heat source, in direct sunlight, or elevated storage temperature. Do not store where the daily average tem-

**HTH CHLORINATING GRANULES**

Version 1.0

MSDS Number: 000000022366

Revision Date: 04/22/2015

perature 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, 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 exposure : Inhalation, skin, eyes, ingestion

**Acute toxicity**

- Acute oral toxicity (LD50) : Approximately 1.200 mg/kg  
Species: Rat

- Acute inhalation toxicity (Inhalation LC50) : > 2,04 mg/l  
Species: Rat  
Exposure time: 1 h  
Remarks: (Nose Only)

- Acute inhalation toxicity (Inhalation LC50) : > 0,51 mg/l  
Species: Rat  
Exposure time: 4 h  
Remarks: (Nose Only)

- Acute dermal toxicity (LD50) : > 2.000 mg/kg  
Species: Rabbit

**Skin corrosion/irritation**

- Skin irritation : Remarks: DRY MATERIAL CAUSES MODERATE SKIN IRRITATION.WET MATERIAL CAUSES SKIN BURNS.

**Serious eye damage/eye irritation**

- Eye irritation : Remarks: Corrosive to eyes.

**Respiratory or skin sensitisation**

- 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.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen

**HTH CHLORINATNG GRANULES**

Version 1.0

MSDS Number: 000000022366

Revision Date: 04/22/2015

by NTP.

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

Toxicity to fish (LC50) : Approximately 0.12 mg/l  
Species: Bluegill  
(nominal, static).  
Exposure time: 96 h  
Remarks: Based on extrapolation from studies using calcium hypochlorite.

Toxicity to fish (LC50) : Approximately 0.22 mg/l  
Species: Rainbow trout (*Salmo gairdneri*),  
(nominal, static).  
Exposure time: 96 h  
Remarks: Based on extrapolation from studies using calcium hypochlorite.

Toxicity to daphnia and other aquatic invertebrates (LC50) : Approximately 0.15 mg/l  
Species: *Daphnia magna*,  
(nominal, static).  
Exposure time: 48 h  
Remarks: Based on extrapolation from studies using calcium hypochlorite.

Toxicity to terrestrial organisms : LC50(Bobwhite quail): > 7,000 ppm  
Remarks: Based on extrapolation from studies using calcium hypochlorite.

LC50(Mallard ducklings): > 7,000 ppm  
Remarks: Based on extrapolation from studies using calcium hypochlorite.

LD50(Bobwhite quail): Approximately 4,800 mg/kg  
Remarks: Based on extrapolation from studies using calcium hypochlorite.

**Persistence and degradability**

no data available

**Bioaccumulative potential**

no data available

**Mobility in soil**

no data available

**Other adverse effects**

Ozone-Depletion Potential : Regulation: US. EPA Clean Air Act (CAA) Section 602 Ozone-Depleting Substances (40 CFR 82, Subpt. A, App A & B)  
Remarks: 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).

Additional ecological information : Highly toxic to fish and other aquatic organisms.



**HTH CHLORINATING GRANULES**

Version 1.0

MSDS Number: 000000022366

Revision Date: 04/22/2015

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D. As a non-hazardous solid waste it should be disposed of in accordance with local, state and federal regulations.

**SECTION 14. TRANSPORT INFORMATION****IATA**

**UN number** : 3077  
**Proper shipping name** : Environmentally hazardous substance, solid, n.o.s.  
(Calcium hypochlorite)  
**Transport hazard class** : 9  
**Packing group** : III  
**Labels** : 9MI  
**Environmental hazards** : yes

**IMDG**

**UN number** : 3077  
**Proper shipping name** : Environmentally hazardous substance, solid, n.o.s.  
(Calcium hypochlorite)  
**Transport hazard class** : 9  
**Packing group** : III  
**Labels** : 9  
**EmS Number 1** : F-A  
**EmS Number 2** : S-F  
**Environmental hazards** : Marine pollutant: yes

**ADR**

**UN number** : 3077  
**Proper shipping name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
SOLID, N.O.S.  
(Calcium hypochlorite)  
**Transport hazard class** : 9  
**Packing group** : III  
**Classification Code** : M7  
**Hazard Identification Number** : 90  
**Labels** : 9  
**Environmental hazards** : yes

## HTH CHLORINATING GRANULES

Version 1.0

MSDS Number: 000000022366

Revision Date: 04/22/2015

## RID

**UN number** : 3077  
**Proper shipping name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
SOLID, N.O.S.  
(Calcium hypochlorite)  
**Transport hazard class** : 9  
**Packing group** : III  
Classification Code : M7  
Hazard Identification Number : 90  
Labels : 9  
**Environmental hazards** : yes

## DOT

**UN number** : NA 3077  
**Proper shipping name** : Other regulated substances, solid, n.o.s.  
(Calcium hypochlorite)  
**Transport hazard class** : 9  
**Packing group** : III  
Labels : 9  
Emergency Response Guidebook : 171  
Number  
**Environmental hazards** : yes

## TDG

**UN number** : 3077  
**Proper shipping name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
SOLID, N.O.S.  
(Calcium hypochlorite)  
**Transport hazard class** : 9  
**Packing group** : III  
Labels : 9  
**Environmental hazards** : yes

**Special precautions for user** : none

**Transport in bulk according to Annex 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.

**Signal word** : DANGER!  
**Hazard statements** : Harmful if swallowed.  
Harmful if absorbed through skin.  
Corrosive. Causes skin burns.

## HTH CHLORINATING GRANULES

Version 1.0

MSDS Number: 000000022366

Revision Date: 04/22/2015

Corrosive. Causes irreversible eye damage.  
This pesticide is toxic to fish.

**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Calcium hypochlorite	7778-54-3	10	18

**SARA 302**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**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 does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (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 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**

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

Calcium hypochlorite 7778-54-3

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

Calcium hypochlorite 7778-54-3

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**

Calcium hypochlorite 7778-54-3  
Calcium dihydroxide 1305-62-0  
Calcium carbonate 471-34-1

**HTH CHLORINATING GRANULES**

Version 1.0

MSDS Number: 000000022366

Revision Date: 04/22/2015

**Pennsylvania Right To Know**

Calcium chlorate	10137-74-3
Calcium hypochlorite	7778-54-3
magnesium sulphate heptahydrate	10034-99-8
Water	7732-18-5
Sodium chloride	7647-14-5
Calcium dihydroxide	1305-62-0
Calcium carbonate	471-34-1
Calcium chlorate	10137-74-3
Calcium chloride	10043-52-4

**New Jersey Right To Know**

Calcium hypochlorite	7778-54-3
magnesium sulphate heptahydrate	10034-99-8
Water	7732-18-5
Sodium chloride	7647-14-5
Calcium dihydroxide	1305-62-0
Calcium carbonate	471-34-1
Calcium chlorate	10137-74-3

**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.

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

TSCA	This is an EPA registered pesticide.
EPA Pesticide Registration Number	1258-1237

**Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

## HTH CHLORINATING GRANULES

Version 1.0

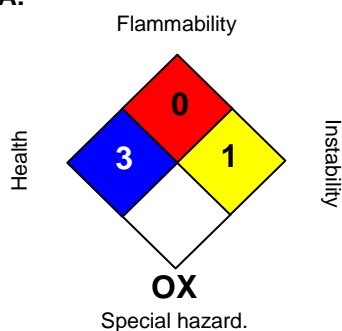
MSDS Number: 000000022366

Revision Date: 04/22/2015

## SECTION 16. OTHER INFORMATION

## Further information

## NFPA:



## HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	1

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

1

Revision Date : 0000/00/00

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.