



FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL: 1-800-654-6911 (OUTSIDE  
USA: 1-423-780-2970)  
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®: 1-800-424-9300 (OUTSIDE  
USA: 1-703-527-3887)  
FOR ALL SDS QUESTIONS & REQUESTS, CALL: 1-800-511-MSDS (OUTSIDE  
USA: 1-423-780-2347)

**PRODUCT NAME: HTH 3" Chlorinating Tablets**

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION


<b>Arch Chemicals, Inc.</b> 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States of America (USA)	REVISION DATE:	08/08/2017
	SUPERCEDES:	03/20/2017
	MSDS Number:	000000025303
	SYNONYMS:	none
	CHEMICAL FAMILY:	Chloroisocyanurates
	DESCRIPTION / USE	Swimming pool water treatment
FORMULA:	NOT APPLICABLE/MIXTURE	

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Acute toxicity (Oral) : Category 4  
Skin irritation : Category 2  
Serious eye damage : Category 1  
Specific target organ toxicity -  
single exposure : Category 3

### GHS label elements

Hazard pictograms :  

Signal word : Danger

Hazard statements : H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H335 May cause respiratory irritation.



Precautionary statements

: **Prevention:**

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.

**Response:**

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P302 + P352 IF ON SKIN: Wash with plenty of water.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
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.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P362 Take off contaminated clothing.  
P363 Wash contaminated clothing before reuse.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

**Disposal:**

P501 Dispose of contents/container in accordance with local regulation.

**Other hazards**

None known.

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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
1,3,5-Triazine, 2,4,6(1H,3H,5H)-trione, 1,3,5-trichloro-	87-90-1	88 - 98
ALUMINUM SULFATE, ANHYDROUS	10043-01-3	1 - 11



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## 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.
Inhalation:	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.
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.
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.
Ingestion:	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

Flammability Summary (OSHA): Product is not known to be flammable, combustible or pyrophoric.,  
NFPA Oxidizer Class: Meets the criteria of an NFPA Class 1  
Oxidizer

### Flammable Properties

Flash Point:	Not applicable
Autoignition Temperature:	Not applicable
Fire / Explosion Hazards:	During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Closed containers may explode (due to the build up of steam pressure) when exposed to extreme heat.
Extinguishing Media:	Water only.
Fire Fighting Instructions:	Use water to cool containers exposed to fire. On small fires, use water spray or fog. On large fires, use heavy deluge or fog streams. Flooding amounts of water may be required before extinguishment can be accomplished. Do not use dry extinguishers containing ammonium compounds.
Upper Flammable / Explosive Limit, % in air:	Not applicable Not applicable
Lower Flammable / Explosive Limit, % in air:	Not applicable Not applicable



## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations: 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. Compatible materials for response to this material are: neoprene. Protection concerns must also address the following: If this material becomes damp/wet or contaminated in a container, the formation of nitrogen trichloride gas may occur and an explosive condition may exist.

### Spill Mitigation Procedures

Air Release:

Vapors may be suppressed by the use of water fog.

Water Release:

This material is heavier than water. This material is soluble in water. Stop water flow or divert water flow around spill if possible and safe to do so. Begin monitoring for available chlorine and pH immediately.

Land Release:

Do not contaminate spill material with any organic materials, ammonia, ammonium salts or urea. Clean up all spill material with clean, dry dedicated equipment and place in a clean dry container.

Additional Spill Information :

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC: 1-800-424-9300 REPORTABLE QUANTITY: Not Applicable (Per 40 CFR 302.4) Hazardous concentrations in air may be found in local spill area and immediately downwind. If spill material is still dry, do not put water directly on this product as a gas evolution may occur. If material is wet, contact 1-800-654-6911 for proper stabilization procedures. Dispose of spill residues per guidelines under Section 13, Disposal Consideration. This material may be neutralized for disposal; you are requested to contact Arch Chemicals at 1-800-654-6911 before beginning any such procedure.

## SECTION 7. HANDLING AND STORAGE

Handling: Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid breathing dust, mist, vapor or gas.

Storage: Store in a cool dry ventilated location, away from sources of ignition or other incompatible conditions and chemicals. Keep container(s) closed. Avoid creating dusts.

Shelf Life Limitations: Indefinite. Available chlorine loss can be as little as 0.1% per year at ambient temperatures.

Incompatible Materials for Storage: Organic materials, Reducing agents, nitrogen containing materials, Oxidizing, Acids, Bases, (Incompatible materials for packaging: paper, cardboard)

Do Not Store At temperatures Above: 60 °C



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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: 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.

### Protective Equipment for Routine Use of Product

Respiratory Protection : Wear a NIOSH approved respirator if levels above the exposure limits are possible.  
Respirator Type : 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.

Skin Protection : 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.  
Protective Clothing Type: Nitrile, Natural Rubber, Neoprene (This includes: gloves, boots, apron, protective suit)

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

### **Components with workplace control parameters**

no data available

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: solid  
Form: tablet  
Color: white  
Odor: Sharp, chlorine-like, bleach odor  
Molecular Weight: Not applicable/Mixture  
Relative density: no data available

pH : 2.4 - 2.7  
( )

Boiling Point: Not applicable  
Melting point/freezing point: Not applicable

Density: 2.1000 g/cm<sup>3</sup>  
Vapor Pressure: Not applicable  
Vapor Density: Not applicable  
Viscosity: Not applicable  
Fat Solubility: no data available  
Solubility in Water: 12 g/l  
77 °F (25 °C)

Partition coefficient n-octanol/water: no data available



Evaporation Rate:	Not applicable
Oxidizing:	Oxidizing
Volatiles, % by vol.:	Not applicable
VOC Content	This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCOMI 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.
HAP Content	Not applicable

## SECTION 10. STABILITY AND REACTIVITY

Stability and Reactivity Summary:	May be unstable at temperatures above 225 Deg. C (437 Deg. F) Not sensitive to mechanical shock. Not sensitive to static discharge. Product will not undergo hazardous polymerization. Considered to be an OSHA oxidizer per 29 CFR 1910.1200. Not an oxidizer according to the criteria established by the 49 CFR DOT regulations. NFPA Oxidizer Class: Meets the criteria of an NFPA Class 1 Oxidizer
Conditions to Avoid:	Sparks, open flame, other ignition sources, and elevated temperatures., Contact with small amounts of water may result in an exothermic reaction with the liberation of toxic fumes., Damp or slightly wet product (will evolve nitrogen trichloride), May be unstable at temperatures above 225 Deg. C (437 Deg. F)
Chemical Incompatibility:	Organic materials, Oils, Grease, Sawdust, nitrogen-containing compounds, Oxidizing, Acids, Bases, Dry fire extinguishers containing ammonium compounds
Hazardous Decomposition Products:	Nitrogen trichloride, Chlorine, nitrous oxides, cyanates, Carbon monoxide, Carbon dioxide
Decomposition Temperature:	225 °C - , 437 °F-

## SECTION 11. TOXICOLOGICAL INFORMATION

### Component Animal Toxicology

#### Oral LD50 value:

1,3,5-Triazine, 2,4,6(1H,3H,5H)-trione, 1,3,5-trichloro-	LD50	490 mg/kg	Rat
ALUMINUM SULFATE, ANHYDROUS	LD50	= 1,930 mg/kg	Rat
	LD50	= 6,207 mg/kg	Mouse

### Component Animal Toxicology

#### Dermal LD50 value:

1,3,5-Triazine, 2,4,6(1H,3H,5H)-trione, 1,3,5-trichloro-	LD50	> 2,000 mg/kg	Rabbit
ALUMINUM SULFATE,	LD50	no data available	



ANHYDROUS

Component Animal Toxicology

Inhalation LC50 value:

ALUMINUM SULFATE, Inhalation LC50 no data available  
ANHYDROUS

Product Animal Toxicity

Oral LD50 value: LD50 Believed to be > 500 but < 5,000 mg/kg. Rat

Dermal LD50 value: LD50 > 5,000 mg/kg Rabbit

Inhalation LC50 no data available

value:

Skin Irritation: DRY MATERIAL CAUSES MODERATE SKIN IRRITATION., WET MATERIAL CAUSES SKIN BURNS.

Eye Irritation: Corrosive to eyes.

Skin Sensitization: Negative skin sensitizer, guinea pig - Buehler Method

Acute Toxicity: This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and respiratory tract. The dry material is irritating to the skin. However when wet, it will produce burns to the skin.

Subchronic / Chronic Toxicity: There are no known or reported effects from repeated exposure., Toxicological investigation indicates it does not produce significant effects from chronic exposure.

Reproductive and Developmental Toxicity: Not known or reported to cause reproductive or developmental toxicity.

Mutagenicity: Not known or reported to be mutagenic.

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.

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## SECTION 12. ECOLOGICAL INFORMATION

Overview: Highly toxic to fish and other aquatic organisms.

Ecological Toxicity Values - Product:

Rainbow trout ( <i>Salmo gairdneri</i> ),	-	96 h LC50 0.32 mg/l
Bluegill sunfish	-	96 h LC50 0.30 mg/l
Daphnia magna,	-	48 h LC50 0.21 mg/l
Anas platyrhynchos (Mallard duck)	-	8 d Dietary LC50 > 10,000 ppm
Anas platyrhynchos (Mallard duck)	-	Acute Oral LD50 1,600 mg/kg
Colinus virginianus (Bobwhite quail)	-	8 d Dietary LC50 7,422 ppm

Ecological Toxicity Values for: 1,3,5-Triazine, 2,4,6(1H,3H,5H)-trione, 1,3,5-trichloro-



- Oncorhynchus mykiss (rainbow trout) - Acute toxicity 96 h LC50 0.32 mg/l
- Lepomis macrochirus (Bluegill sunfish) - Acute toxicity 96 h LC50 0.3 mg/l
- Daphnia magna (Water flea) - static test 48 h EC50 0.21 mg/l
- Daphnia magna (Water flea) - static test 48 h EC50 0.17 mg/l
- Chlorella pyrenoidosa (aglae) - 3 h EC50 0.5 mg/l
- 3 h NOEC < 0.5 mg/l
- Anas platyrhynchos (Mallard duck) - LC50 1,600.00000 mg/kg
- Anas platyrhynchos (Mallard duck) - 8 d LC50 > 10,000.00000 ppm
- Colinus virginianus (Bobwhite quail) - 8 d Dietary LC50 7,422 ppm
- Anas platyrhynchos (Mallard duck) - Acute Oral LD50 1,600 mg/kg
- Anas platyrhynchos (Mallard duck) - 8 d Dietary LC50 > 10,000 ppm

Ecological Toxicity Values for: ALUMINUM SULFATE, ANHYDROUS

- Largemouth bass - 96 h LC50 = 250 mg/l
- Mosquito fish - 96 h LC50 = 235 mg/l

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## SECTION 13. DISPOSAL CONSIDERATIONS

**CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.**

Waste Disposal Summary : 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.

Disposal Methods : As a nonhazardous waste, it should be disposed of in accordance with local, state and federal regulations.

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## SECTION 14. TRANSPORT INFORMATION

**DOT**  
UN number : 3077  
Description of the goods : Environmentally hazardous substance, solid, n.o.s.  
: (Trichloro-s-triazinetrione)  
Class : 9



Packing group : III  
Labels : 9  
Emergency Response : 171  
Guidebook Number

**TDG**

UN number : 3077  
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,  
N.O.S.  
(Trichloro-s-triazinetrione)  
Class : 9  
Packing group : III  
Labels : 9

**IATA**

UN number : 3077  
Description of the goods : Environmentally hazardous substance, solid, n.o.s.  
(Trichloro-s-triazinetrione)  
Class : 9  
Packing group : III  
Labels : 9MI  
Packing instruction (cargo aircraft) : 956  
Packing instruction (passenger aircraft) : 956  
Packing instruction (passenger aircraft) : Y956

**IMDG-CODE**

UN number : 3077  
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,  
N.O.S.  
(Trichloro-s-triazinetrione)  
Class : 9  
Packing group : III  
Labels : 9  
EmS Number 1 : F-A  
EmS Number 2 : S-F  
Marine pollutant : yes

49CFR (DOT) Material is not regulated for ground transportation within the US if shipped in non-bulk packages. Material is not regulated as a marine pollutant for ground transportation within the US if shipped in non-bulk packages (reference 49CFR 171.4(c)).

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## **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.  
 May be fatal if absorbed through skin.  
 May be fatal if inhaled.  
 Corrosive. Causes skin burns.  
 Corrosive. Causes irreversible eye damage.  
 This pesticide is toxic to fish.

EPA No. : 1258-1278

**EPCRA - Emergency Planning and Community Right-to-Know Act**

**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Aluminum sulfate (2:3)	10043-01-3	5000	80645

**SARA 311/312 Hazards**

See above: SECTION 2. Hazard Identification-GHS Classification

**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 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 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

**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)
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
Aluminum sulfate (2:3)	10043-01-3	

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

Components	CAS-No.
1,3,5-Trichloro-1,3,5-triazinane-2,4,6-trione	87-90-1
Aluminum sulfate (2:3)	10043-01-3

#### Pennsylvania Right To Know

Components	CAS-No.
1,3,5-Trichloro-1,3,5-triazinane-2,4,6-trione	87-90-1
Aluminum sulfate (2:3)	10043-01-3

#### New Jersey Right To Know

Components	CAS-No.
1,3,5-Trichloro-1,3,5-triazinane-2,4,6-trione	87-90-1
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.

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## SECTION 16. OTHER INFORMATION

SECTIONS REVISED: 1  
SECTIONS REVISED: Arch is a wholly-owned subsidiary of Lonza and continues to operate as Arch Chemicals, Inc.  
Major References : Available upon request.



**Arch  
Chemicals,  
Inc.**

## SAFETY DATA SHEET

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT. .