

### **SAFETY DATA SHEET**

according to US Regulation 29 CFR 1910.1200 and the Canadian HPA

# **HTH Super 3" Chlorinating Tablets**

Version 1.3 Revision Date 2019.04.16 Print Date 2019.07.12

#### **SECTION 1. IDENTIFICATION**

Product name : HTH Super 3" Chlorinating Tablets

Manufacturer or supplier's details

Company : Arch Chemicals, Inc.

1200 Bluegrass Lakes Parkway

Alpharetta, GA

30004

United States of America (USA)

E-mail address : sds@lonza.com

Emergency telephone number : In case of emergency call CHEMTREC US: 1-800-424-9300,

CHEMTREC WORLD-WIDE: +1-703-527-3887.

Recommended use of the chemical and restrictions on use

Recommended use : Water treatment chemical

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

**GHS Classification** 

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 3

Skin irritation : Category 2

Serious eye damage : Category 1

Reproductive toxicity : Category 1B

Specific target organ toxicity -

single exposure

: Category 3 (Respiratory system)

**GHS** label elements

Hazard pictograms









Signal word : Danger

Hazard statements : H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eve damage.

H331 Toxic if inhaled.

H335 May cause respiratory irritation.

H360 May damage fertility or the unborn child.



Precautionary statements

### Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash 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.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

# Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON

CENTER/doctor if you feel unwell. Rinse mouth.

P302 + P352 IF ON SKIN: Wash with plenty of water.

P304 + P340 + P311 IF INHALED: Remove person to fresh air

and keep comfortable for breathing. Call a POISON

CENTER/doctor.

P305 + P351 + P338 + P310 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.

P308 + P313 IF exposed or concerned: Get medical advice/ atten-

tion.

P332 + P313 If skin irritation occurs: Get medical advice/ attention. P362 + P364 Take off contaminated clothing and wash it before reuse.

#### Storage:

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

P405 Store locked up.

## Disposal:

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

### Other hazards

None known.

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

Chemical nature : Mixture

#### **Hazardous components**

Chemical name / Synonyms	CAS-No.	Concentration (% w/w)
1,3,5-Trichloro-1,3,5-triazinane-2,4,6-trione	87-90-1	90 - 96
zinc sulphate	7446-19-7	2 - 4
Proprietary Filter Aid		1 - 3
Boric acid	10043-35-3	0 - 1

#### **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 con-



trol center or doctor, or going for treatment.

If inhaled : IF INHALED: Move person to fresh air. If person is not breath-

ing, 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.

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 poi-

son control center or doctor for treatment advice.

If swallowed : IF SWALLOWED: Call a poison control center or doctor im-

mediately 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 any-

thing by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

None known.

Notes to physician : Probable mucosal damage may contraindicate the use of gas-

tric lavage.

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

Suitable extinguishing media : Water only.

Specific hazards during firefighting : During a fire, irritating and highly toxic gases may be generat-

ed by thermal decomposition or combustion.

Closed containers may explode (due to the build up of steam

pressure) when exposed to extreme heat.

Further information : 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 com-

pounds.

#### **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 repirator 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: neo-

prene.



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.

FOR ALL TRANSPORTATION ACCIDENTS, CALL

CHEMTREC: 1-800-424-9300

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.

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 : Do not take internally. Avoid contact with skin, eyes and cloth-

ing. Upon contact with skin or eyes, wash off with water.

Avoid breathing dust, mist, vapor or gas.

Conditions for safe 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.

Materials to avoid : Refer to Section 10, "Incompatible Materials."

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Boric acid	10043-35-3	TWA (Inhal- able frac- tion.)	2 mg/m3	ACGIH
		STEL (Inhal- able frac- tion.)	6 mg/m3	ACGIH
		(Inhalable fraction.)		ACGIH

**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 rec-

ommended exposure limit.

Personal protective equipment

Respiratory protection Wear a NIOSH approved respirator if levels above the expo-

sure 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.

Hand protection

Remarks Wear impervious gloves to avoid skin contact. A full impervi-

ous 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)

An eye wash and safety shower should be provided in the Protective measures

immediate work area.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

tablet **Appearance** 

Colour white

Odour Sharp, chlorine-like, bleach odor

Odour Threshold no data available

рΗ

Concentration: 1 %

Melting point/freezing point Not applicable

Boiling point/boiling range no data available

Flash point no data available

Evaporation rate Not applicable

Flammability (solid, gas) Product is not known to be flammable, combustible or pyro-

phoric.

Flammability (liquids) no data available



Upper explosion limit : Not applicable

Lower explosion limit : Not applicable

Vapour pressure : Not applicable

Relative vapour density : no data available

Relative density :  $> 1 (68 \degree F / 20 \degree C)$ 

Water solubility : 12 g/l (77 °F / 25 °C)

Partition coefficient: n-octanol/water : no data available

Auto-ignition temperature : no data available

Decomposition temperature : 437 °F / 225 °C

Viscosity, dynamic : no data available

Viscosity, kinematic : no data available

Oxidizing properties : Oxidizing

Molecular weight : 232.41 g/mol

#### **SECTION 10. STABILITY AND REACTIVITY**

Possibility of hazardous reactions : NFPA Oxidizer Class: Meets the criteria of an NFPA Class 1

Oxidizer

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.

Conditions to avoid : Sparks, open flame, other ignition sources, and elevated tem-

peratures.

Contact with small amounts of water may result in an exo-

thermic 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)

Incompatible materials : Organic materials

Oils Grease Sawdust

Reducing agents

nitrogen-containing compounds

Oxidizing Acids Bases

Dry fire extinguishers containing ammonium compounds

Hazardous decomposition products : Nitrogen trichloride

Chlorine nitrous oxides



cyanates

Carbon dioxide (CO2)

#### **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on likely routes of expo-:

Inhalation, skin, eyes, ingestion

sure

Acute toxicity

Acute oral toxicity : LD50 (Rat): 490 mg/kg

Acute inhalation toxicity : LC50 (Rat): approximately 0.54 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Remarks: (Nose Only)

LC50 (Rat): approximately 2.16 mg/l

Exposure time: 1 h

Test atmosphere: dust/mist Remarks: (Nose Only)

LD50 (Rabbit): > 2,000 mg/kg Acute dermal toxicity

#### 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: Negative skin sensitizer, guinea pig - Buehler Method

## 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.

### Repeated dose toxicity

Remarks: There are no known or reported effects from repeated exposure.

Toxicological investigation indicates it does not produce significant effects from chronic exposure.



#### **SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity** 

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.32 mg/l

Exposure time: 96 h

LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.30 mg/l

Exposure time: 96 h

Toxicity to daphnia and other aquat-

ic invertebrates

LC50 (Daphnia magna (Water flea)): 0.21 mg/l

Exposure time: 48 h

Toxicity to terrestrial organisms : Dietary LC50 (Anas platyrhynchos (Mallard duck)): > 10,000

ppm

Exposure time: 8 d

Acute Oral LD50 (Anas platyrhynchos (Mallard duck)): 1,600

mg/kg

Dietary LC50 (Colinus virginianus (Bobwhite quail)): 7,422

ppm

Exposure time: 8 d

Persistence and degradability

no data available

Bioaccumulative potential

Components:

1,3,5-Trichloro-1,3,5-triazinane-2,4,6-trione:

Partition coefficient: n-octanol/water : log Pow: 0.94

Method: Calculation method

Boric acid:

Partition coefficient: n-octanol/water : log Pow: -0.757 (25 °C)

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.

### **SECTION 13. DISPOSAL CONSIDERATIONS**



## **Disposal methods**

Waste from residues : If this product becomes a waste, it will be a nonhazardous

waste.

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

#### **SECTION 14. TRANSPORT INFORMATION**

DOT

UN number : 3077

Proper shipping name : Environmentally hazardous substance, solid, n.o.s.

(Trichloro-s-triazinetrione, zinc sulphate)

Transport hazard class: 9Packing group: IIILabels: 9Emergency Response Guidebook: 171

Number

Environmental hazards : yes

**TDG** 

UN number : 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

SOLID, N.O.S.

(Trichloro-s-triazinetrione, zinc sulphate)

Transport hazard class : 9
Packing group : III
Labels : 9
Environmental hazards : yes

IATA

UN number : 3077

**Proper shipping name** : Environmentally hazardous substance, solid, n.o.s.

(Trichloro-s-triazinetrione, zinc sulphate)

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.

(Trichloro-s-triazinetrione, zinc sulphate)

Transport hazard class: 9Packing group: IIILabels: 9EmS Number 1: F-AEmS Number 2: S-F

**Environmental hazards** : Marine pollutant: yes



#### **ADR**

UN number : 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

SOLID, N.O.S.

(Trichloro-s-triazinetrione, zinc sulphate)

Transport hazard class9Packing group: IIIClassification Code: M7Hazard Identification Number: 90Labels: 9Environmental hazards: yes

**RID** 

UN number : 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

SOLID, N.O.S.

(Trichloro-s-triazinetrione, zinc sulphate)

Transport hazard class : 9
Packing group : III
Classification Code : M7
Hazard Identification Number : 90
Labels : 9
Environmental hazards : yes

Special precautions for user

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)).

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.

EPA Registration number : 1258-1338 Signal word : DANGER!

Hazard statements : Corrosive. Causes skin burns.

Corrosive - causes irreversible eye damage.

Harmful if swallowed.

May be fatal if absorbed through skin.

May be fatal if inhaled. This pesticide is toxic to fish.

### **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)
zinc sulphate	7446-19-7	1000	28571

## 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**

Components	CAS-No.	Concentration
zinc sulphate	7446-19-7	2 - 4 %

#### 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)
zinc sulphate	7446-19-7	1000
Proprietary Filter Aid	Not As-	5000
	signed	

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

Components	CAS-No.	Concentration
zinc sulphate	7446-19-7	2 - 4 %
Proprietary Filter Aid	Not As-	1 - 3 %
	signed	

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.
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1,3,5-Trichloro-1,3,5-triazinane-2,4,6-trione	87-90-1
zinc sulphate	7446-19-7
Proprietary Filter Aid	Not Assigned

## Pennsylvania Right To Know

Components	CAS-No.
1,3,5-Trichloro-1,3,5-triazinane-2,4,6-trione	87-90-1
zinc sulphate	7446-19-7

#### **New Jersey Right To Know**

Components	CAS-No.
1,3,5-Trichloro-1,3,5-triazinane-2,4,6-trione	87-90-1
zinc sulphate	7446-19-7
Proprietary Filter Aid	Not Assigned

#### 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**

Components	CAS-No.
zinc sulphate	7446-19-7

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

TSCA : This is an EPA registered pesticide.

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

### Full text of other abbreviations

ACGIH : US. ACGIH Threshold Limit Values

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

1

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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

Date format : yyyy/mm/dd

US / EN