

SAFETY DATA SHEET

according to US Regulation 29 CFR 1910.1200 and the Canadian HPA

HTH® EXTRA® STARTUP CHLORINATOR AND ALGAEICIDE

Version 1.0

Revision Date 2019.03.15

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SECTION 1. IDENTIFICATION

Product name : HTH® EXTRA® STARTUP CHLORINATOR AND ALGAEICIDE

PMRA Registration number : 32237, 30474, 30592, 30594

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 4

Skin irritation : Category 2

Serious eye damage : Category 1

Specific target organ toxicity -
single exposure : Category 3 (Respiratory system)

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H302 + H332 Harmful if swallowed or if inhaled.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

Precautionary statements : **Prevention:**
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

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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 eye protection/ face protection.
 P280 Wear protective gloves.

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 soap and water.
 P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
 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.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.
 P362 Take off contaminated clothing and wash 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 to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture

Hazardous components

Chemical name / Synonyms	CAS-No.	Concentration (% w/w)
sodium dichloroisocyanurate, dihydrate	51580-86-0	30 - 40
Copper(II) sulfate pentahydrate	7758-99-8	5 - 10

SECTION 4. FIRST AID MEASURES

Most important symptoms and effects, both acute and delayed : None known.

Notes to physician : Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water only.
 Do not use dry extinguishers containing ammonium compounds.

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- Specific hazards during firefighting : May intensify fire; oxidizer.
- 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 compounds.
Response to this material requires the use of a full encapsulated suit and full-face (NIOSH approved) self-contained breathing apparatus (SCBA).
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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.
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.
Stop source of spill as soon as possible and notify appropriate personnel.
Utilize emergency response personal protection equipment prior to the start of any response.
Evacuate all non-essential personnel.
Dispose of spill residues per guidelines under Section 13, Disposal Consideration.
- Environmental precautions : If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment 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.
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SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid inhalation of dust and fumes.
- 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.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Copper(II) sulfate pentahydrate	7758-99-8	REL (Dust and mist.)	1 mg/m3 (as Cu)	NIOSH/GUIDE
		TWA (Dust and mist.)	1 mg/m3 (as Cu)	ACGIH
		(Dust and mist.)		ACGIH
		TWA (Fume.)	0.2 mg/m3 (as Cu)	ACGIH
		(Fume.)		ACGIH
		REL (Fume.)	0.1 mg/m3 (as Cu)	NIOSH/GUIDE

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.

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 : Neoprene, Nitrile, Natural rubber (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

Colour : white

Odour : Mild chlorine-like

Odour Threshold : no data available

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pH	:	7.0 - 7.5
Melting point/freezing point	:	no data available
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, pyrophoric or explosive.
Flammability (liquids)	:	no data available
Upper explosion limit	:	no data available
Lower explosion limit	:	no data available
Vapour pressure	:	no data available
Relative vapour density	:	no data available
Relative density	:	1.029
Density	:	no data available
Water solubility	:	partly soluble
Partition coefficient: n-octanol/water	:	no data available
Auto-ignition temperature	:	no data available
Decomposition temperature	:	no data available
Viscosity, dynamic	:	no data available
Viscosity, kinematic	:	no data available
Oxidizing properties	:	Product has oxidizing properties.

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	:	Sparks, open flame, other ignition sources, and elevated temperatures. Contact with incompatible substances
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.
Hazardous decomposition products	:	Chlorine Nitrogen trichloride Carbon monoxide

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SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, skin, eyes, ingestion
sure

Acute toxicity

Acute oral toxicity : LD50 (Rat): Believed to be approximately 1,200 mg/kg

Acute inhalation toxicity : LC50: 1.3 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

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

Skin corrosion/irritation

Assessment: Corrosive

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. The active ingredient in this product tested negative for skin sensitization in laboratory animals.

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 carcinogen 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 carcinogen by ACGIH.

Further information

Remarks: no data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

no data available

Persistence and degradability

no data available

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Bioaccumulative potential

Components:

sodium dichloroisocyanurate, dihydrate:

Partition coefficient: n-octanol/water : Remarks: 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.

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.
(Sodium dichloro-s-triazine trionedihydrate, Copper(II) sulfate pentahydrate)
Transport hazard class : 9
Packing group : III
Labels : 9
Emergency Response Guidebook : 171
Number
Environmental hazards : yes

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TDG

UN number : 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
 SOLID, N.O.S.
 (Sodium dichloro-s-triazine trionedihydrate, Copper(II)
 sulfate pentahydrate)
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.
 (Sodium dichloro-s-triazine trionedihydrate, Copper(II)
 sulfate pentahydrate)
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.
 (Sodium dichloro-s-triazine trionedihydrate, Copper(II)
 sulfate pentahydrate)
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.
 (Sodium dichloro-s-triazine trionedihydrate, Copper(II)
 sulfate pentahydrate)
Transport hazard class : 9
Packing group : III
 Classification Code : M7
 Hazard Identification Number : 90
 Labels : 9
Environmental hazards : yes

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RID

UN number	: 3077
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Sodium dichloro-s-triazine trionedihydrate, Copper(II) sulfate pentahydrate)
Transport hazard class	: 9
Packing group	: III
Classification Code	: M7
Hazard Identification Number	: 90
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 pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain label.

Read the approved label, authorized under the Pest Control Products Act, prior to using or handling the pest control product.

PMRA Registration number : 32237, 30474, 30592, 30594
 Hazard pictograms :



Signal word : DANGER!
 Hazard statements : Corrosive - causes irreversible eye damage.
 Causes skin irritation.
 May be fatal if swallowed.
 Harmful if inhaled.
 Pesticide is toxic to aquatic organisms.

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Copper(II) sulfate pentahydrate	7758-99-8		111
Copper(II) sulfate pentahydrate	7758-99-8	10	111

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards

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See above: SECTION 2. Hazard Identification-GHS Classification

SARA 313

Components	CAS-No.	Concentration
Copper(II) sulfate pentahydrate	7758-99-8	5 - 10 %

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 SOCM 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)
Copper(II) sulfate pentahydrate	7758-99-8	10

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

Components	CAS-No.	Concentration
Copper(II) sulfate pentahydrate	7758-99-8	5 - 10 %

This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307

Components	CAS-No.	Concentration
Copper(II) sulfate pentahydrate	7758-99-8	5 - 10 %

US State Regulations

Massachusetts Right To Know

Components	CAS-No.
sodium dichloroisocyanurate, dihydrate	51580-86-0
Copper(II) sulfate pentahydrate	7758-99-8

Pennsylvania Right To Know

Components	CAS-No.
Sodium hydrogencarbonate	144-55-8
sodium dichloroisocyanurate, dihydrate	51580-86-0
Copper(II) sulfate pentahydrate	7758-99-8
Trisodium citrate dihydrate	6132-04-3

New Jersey Right To Know

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Components	CAS-No.
Sodium hydrogencarbonate	144-55-8
sodium dichloroisocyanurate, dihydrate	51580-86-0
Copper(II) sulfate pentahydrate	7758-99-8
Trisodium citrate dihydrate	6132-04-3

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

Components	CAS-No.
Copper(II) sulfate pentahydrate	7758-99-8

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

TSCA : This chemical is for export only and thus, is not subject to TSCA regulations.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH : US. ACGIH Threshold Limit Values
 NIOSH/GUIDE : US. NIOSH: Pocket Guide to Chemical Hazards

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-

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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 : 2019.03.15

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