

FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL:

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:

FOR ALL SDS QUESTIONS & REQUESTS, CALL:

1-800-654-6911 (OUTSIDE

USA: 1-423-780-2970) 1-800-424-9300 (OUTSIDE

USA: 1-703-527-3887) 1-949-474-7707

Product name FRESH & CLEAN ® 1" TABLETS CHLORINATING TABLETS

Product id

Revision date May 16, 2015

## 1. Identification of the substance & the company

Chemical name Trichloro-s-triazinetrione

Synonym(s) Trichloroisocyanuric Acid; TCCA; Trichlor; Trichloro-s-triazinetrione; Symclosene

Chemical formula

C 3 Cl 3 N 3 O 3

Chemical family

Chloroisocyanurate

Molecular weight 232.41

**Type of product and use** For formulation into end-use products intended for disinfectants, sanitizers,

fungicides, bactericides and algaecides for pools, spas, hot tubs industrial recirculating water cooling towers, air washers and evaporative condensers,

sewage treatment, food contact surfaces, laundry and egg sanitizing

**Supplier** AQUA TRI®

17872 Mitchell N.. Irvine, CA. 92614-6034

(949)474-7707

WWW.ALLCLEAR.COM

**Emergency Telephone** 1-800-654-6911, 24 Hours/Day, Seven days a week.

Other times, call the poison control center 1-800-222-1222.

## 2. Hazards identification

GHS classification Ox. Sol. 2 H272, May intensify fire; oxidizer

Acute Tox. 4, H302 Harmful if swallowed Eye Irrit. 2, H319 Causes serious eye irritation USA: Eye Irrit. 2A, Causes serious eye irritation STOT SE 3, H335 May cause respiratory irritation Aquatic Acute 1, H400 - Very toxic to aquatic life

Aquatic Chronic 1, H410 - Very toxic to aquatic life with long lasting effects

### Symbol(s)





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**Hazard statements** H272 - May intensify fire; oxidizer

H302 - Harmful if swallowed

H319 - Causes serious eye irritation H335 - May cause respiratory irritation

H410 - Very toxic to aquatic life with long lasting effects

EUH031 - Contact with acids liberates toxic gas

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

P221 - Take any precaution to avoid mixing with combustibles/other chemicals

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

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

P273 - Avoid release to the environment

P391 - Collect spillage

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if

you feel unwell

P330 - Rinse mouth

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/attention.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for

breathing

P312 - Call a POISON CENTER or doctor/physician if you feel unwell

P220 - Keep/Store away from clothing/ combustible materials

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 P370 + P378 - In case of fire: Use water for extinction

P405 - Store locked up

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

P501 - Dispose of contents/container in accordance with national and international

regulations

Potential environmental effects Very toxic to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

NFPA Ratings (Scale 0-4) Health = 3, Fire = 0, Reactivity = 2. Special Hazard Warning: OXIDIZER.

**HMIS Ratings (Scale 0-4)** Health = 3, Fire = 0, Reactivity = 2



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## 3. Composition / information on ingredients

Components	CAS No.	Weight %
Trichloroisocyanuric Acid	87-90-1	99

### 4. First-aid measures

**Eye contact** 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.

**Skin contact**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.

**Inhalation** Move person to fresh air. If person is not breathing, call 911 or an ambulance,

then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a

poison control center or doctor for further treatment advice.

**Ingestion**Call 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 the poison control center or doctor. Do not give anything by mouth to

an unconscious person.

### Most important symptoms and effects, acute or delayed

- Eye Contact Severe irritation and/or burns can occur following eye exposure. Contact may

cause impairment of vision and corneal damage.

- Skin contact Dermal exposure can cause severe irritation and/or burns characterized by

redness, swelling and scab formation.

Repeated skin exposure may cause tissue destruction due to the corrosive nature

of the product.

Inhalation Irritating to the nose, mouth, throat and lungs.

It may also cause burns to the respiratory tract with the production of lung edema

that can result in shortness of breath, wheezing, choking, chest pain, and

impairment of lung function.

Inhalation of high concentrations can result in permanent lung damage from the

corrosive action of the lung.



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- Ingestion Irritation and/or burns can occur to the entire gastrointestinal tract, including the

stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal

pain, bleeding and/or tissue ulceration.

Ingestion causes severe damage to the gastrointestinal tract with the potential to

cause perforation.

**Note to physician** Probable mucosal damage may contraindicate the use of gastric lavage.

Corrosive. No specific antidote.

In case of ingestion DO NOT induce vomiting. Treat symptomatically and supportively.

Medical conditions aggravated by exposure

Asthma, respiratory and cardiovascular diseases.

### 5. Fire - fighting measures

Suitable extinguishing media

Water. Large amounts of water may be needed and the flow of water should not

be stopped until the fire/reaction has stopped.

Extinguishing media not to be used

Do not use dry chemical extinguisher containing ammonia compounds.

Unusual fire and explosion hazards

When heated to decomposition, may release poisonous and corrosive fumes of

nitrogen trichloride, chlorine, nitrous oxides, cyanates, carbon monoxide and

carbon dioxide.

Fire fighting procedure Cool containers with water spray. Fire fighters should wear full protective clothing

and self-contained breathing apparatus (SCBA) in positive pressure mode. 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.



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Product name Product id Revision date Supersedes

May 16, 2015

### 6. Accidental release measures

Personal precautions For small spills in a well-ventilated areas, wear a NIOSH approved half-face or full

face tight fitting respirator or a loose fitting powered air purifying respirator equipped with chlorine cartridges. Chemical goggles should be worn when using a half-face respirator. In addition to respiratory protection, wear coveralls, chemical resistant gloves, chemical resistant footwear; and chemical resistant headgear for overhead exposure. For clean-up of large spills, or small dry spills in confined areas, wear full-face respirator with chlorine cartridges or a positive pressure supplied air respirator. Additionally, body protection should be impervious clothing covering entire body to prevent personal contact with material. CAUTION - 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.

**Environmental precautions** Prevent entry into sewers and watercourses

Methods for cleaning up 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.

- Soil 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.

- Water This material is heavier than and soluble in water. Stop flow of material into water

as soon as possible. Begin monitoring for available chlorine and pH immediately.

- Air Vapors may be suppressed by the use of water fog.

## 7. Handling and storage

Handling Avoid bodily contact. Do not take internally. Upon contact with skin or eyes, wash

off with water.

Storage Store in a dry, cool, well-ventilated area away from incompatible materials (see

"materials to avoid"). Product has an indefinite shelf-life limitation. Do not store at temperatures above 60°C/140°F. Available chlorine loss can be as little as 0.1%

per year at ambient temperatures.



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Product name Product id

Revision date May 16, 2015

# 8. Exposure controls / personal protection

### **Exposure Limits:**

Components	ACGIH-TLV Data	OSHA (PEL) Data
Trichloroisocyanuric Acid 87-90-1	Not determined	Not determined

Ventilation requirements

Use local exhaust ventilation to minimize dust and chlorine levels where industrial

use occurs. Otherwise, ensure good general ventilation.

Personal protective equipment:

- Respiratory protection When dusty conditions are encountered, wear a NIOSH/OSHA full-face respirator

with chlorine cartridges for protection against chlorine gas and dust/mist pre-filter.

- Hand protection Neoprene gloves

chemical goggles may be required.

- Skin and body protection Body covering clothes and boots

**Hygiene measures** Do not eat, smoke or drink where material is handled, processed or stored. Wash

hands thoroughly after handling and before eating or smoking. Safety shower and

eye bath should be provided.

## 9. Physical and chemical properties

Appearance White granules or tablet-form product Odor Sharp, chlorine-like bleach odor

Odor Sharp, chlorine-like bleach odo
Odor threshold Not determined

pH 2.7-2.9 (1% solution)

Melting point/range 225-230°C (decomposes)

Boiling point/range Not applicable (decomposes)

Flash point Not applicable

Evaporation rate (ether=1)
Vapor pressure
Vapor density

Not applicable under standard conditions
Not applicable under standard conditions
Not applicable under standard conditions

Solubility:

- Solubility in water 1.2 g/100ml at 25°C

- Solubility in other solvents

Decomposition temperature

Viscosity

Not available
225 °C (437°F)
Not viscous



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Bulk density Granulest - 1.16-1.9

g/cc

Specific gravity >1

**Explosive properties**Not available
Oxidizing properties
Oxidizer

## 10. Stability and reactivity

**Reactivity**Contact with small amounts of water may result in an exothermic reaction with the

liberation of toxic fumes.

Stability Stable under normal conditions

Possibility of hazardous

reactions

Decomposes when heated, releasing poisonous and corrosive fumes.

**Conditions to avoid** Heating above 225°C (437°F).

Materials to avoid Do not package in paper or cardboard. Organic materials, reducing agents,

nitrogen containing materials, other oxidizers, acids, bases, oils, grease, sawdust,

dry fire extinguishers containing mono-ammonium compounds.

**Hazardous decomposition** 

products

Nitrogen trichloride, chlorine, nitrous oxides, cyanates, carbon monoxide, carbon

dioxide.

## 11. Toxicological information

Likely Routes of Exposure Skin

Inhalation Eye contact Ingestion

Acute toxicity:

Rat oral LD50
 Rabbit dermal LD50
 Eye irritation (rabbit)
 Dermal irritation (rabbit)
 809 mg/kg
 >2000 mg/kg
 Corrosive
 Corrosive

**Dermal sensitization** Not a sensitizer

**Chronic toxicity** Prolonged exposure may cause damage to the respiratory system. Chronic

inhalation exposure may cause impairment of lung function and permanent lung

damage.

Mutagenicity Not mutagenic in five Salmonella strains and one E.coli strain with or without

mammalian microsomal activation.



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Carcinogenicity Not classified by IARC, OSHA, EPA.

Not included in NTP 12th Report on Carcinogens

Reproductive toxicity

There are no known or reported effects on reproductive function or fetal

development. Toxicological investigation indicates it does not affect reproductive

function or fetal development.

## 12. Ecological information

**Aquatic toxicity:** 

- 96 Hour-LC50, Fish 0.32 mg/l (Rainbow trout)

0.30 mg/l (bluegill sunfish)

- 48 hour-LC50, Daphnia magna 0.21 mg/l

Avian toxicity:

Oral LD50, Mallard duck
 Dietary LC50, Mallard duck
 Dietary LC50, Bobwhite quail
 7422 ppm

Persistence and degradability Expected to biodegradable (Lit.)

Bioaccumulative potential Not expected to bioaccumulate (Lit.)

**Mobility in soil** Expected to be highly mobile in soil (Lit.)

## 13. Disposal considerations

Waste disposal Observe all federal, state and local environmental regulations when disposing of

this material.

If this product becomes waste, it will be a hazardous waste that is subject to the Land Disposal Restrictions under 40 CFR 268 and must be managed accordingly. Care must be taken to prevent environmental contamination from the use of this

material.

**Disposal of Packaging** Empty containers should be disposed of in accordance with all applicable laws

and regulations



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## 14. Transportation information

**UN No.** 2468

**DOT** Proper shipping name: Trichloroisocyanuric Acid Dry

Class: 5.1 - Oxidizing substances Label: Oxidizing substances (5.1)

Packing Group: II

Emergency Guide No.140

Note: Certain shipping modes or package sizes may have exceptions from the transport regulations and may be classified as Consumer Commodity and Limited Quantity. The classification provided may not reflect those exceptions and may not

apply to all shipping modes or package sizes.

IMDG Proper shipping name: Trichloroisocyanuric Acid Dry

Class: 5.1 - Oxidizing substances Label: Oxidizing substances (5.1)

Packing Group: II

Mark: MARINE POLLUTANT

ICAO/IATA Proper shipping name: Trichloroisocyanuric Acid Dry

Label: Oxidizing substances (5.1)

Class: 5.1

Packing group: II

Marking: Environmentally hazardous substance

## 15. Regulatory information

**USA** Reported in the EPA TSCA Inventory.

This product is registered under FIFRA.

EPA Registration no. 87966-2

Emergency overview in accordance to EPA

Master Label

**DANGER** 

Hazards to humans and domestic animals

Highly corrosive Causes irreversible eve damage or

skin burns May be fatal if inhaled May be fatal if absorbed through skin

Strong oxidizing agent

This pesticide is toxic to fish and aquatic organisms.



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- SARA (311, 312) This product is categorized as an immediate health hazard, and fire and reactivity

physical hazard. This product does not contain a chemical listed at or above de

minimis concentrations.

- Massachusetts Right-to-Know

Hazardous Substances list

Listed

- New Jersey Right-to-Know Hazardous Substances list

Listed

- Pennsylvania Right-to-Know

**Hazardous Substances list** 

Listed

- Waste Classifications If this product becomes a waste, it meets the criteria of a hazardous waste as

defined under 40 CFR 261 and would have the following EPA hazardous waste

number:D001.

- Workplace Classification This product is considered hazardous under the OSHA Hazard Communication

Standard (29CFR 1910.1200).

Canada Listed in DSL

**-WHMIS hazard class** C oxidizing materials

D1B Toxic material causing immediate and serious toxic effects

D2B Toxic materials causing other toxic effects

EU Reported in EINECS

**EC No.** 201-782-8

Japan ENCS no. 5-1044

ISHL no. 5-1044

Australia Listed in AICS

New Zealand Inventory Listed in NZIoC

China

- China inventory Listed in IECSC

Mexico Listed in the National Inventory of Chemical Substances (INSQ).

Korea Listed in the Korea Existing Chemicals Inventory (KECI), number KE-34101

Philippines Listed in PICCS



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### 16. Other information

### This data sheet contains changes from the previous version

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE, ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH THE INFORMATION REFERS.

In an event of discrepancy between the contents of this SDS and the English version of it, the English version shall prevail.

Prepared For: AQUA TRI®

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