

**SAFETY DATA SHEET**

<b>Product Name:</b>	Aquatabs In-Line	
<b>Revision date:</b>	02/11/2018	
<b>Distributed by:</b>	Assist Natural Products and Services LLC	
<b>Supersedes:</b>		<b>Revision: 0</b>

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

**1.1 Identification of the substance/preparation**

<b>Product Name</b>	: Aquatabs In-Line
<b>Synonyms</b>	: None.
<b>Product identifier</b>	: Trichloro-s-triazinetrione
<b>Synonym(s)</b>	: Trichloroisocyanuric Acid; TCCA; Trichlor; Trichloro-s-triazinetrione; Symclosene
<b>Chemical formula</b>	: C <sub>3</sub> Cl <sub>3</sub> N <sub>3</sub> O <sub>3</sub>
<b>EC No.</b>	: 201-782-8
<b>REACH Registration No.:</b>	The transition time according to REACH Regulation, Article 23 is still not expired
<b>Molecular weight</b>	: 232.41
<b>Chemical family</b>	: Chloroisocyanurate

**1.2 Use of the substance/preparation**

Tablets used in Aquatabs In-Line are slow dissolving tablets for continuous chlorination of drinking water.

**1.3 Company/undertaking identification**

<b>Manufacturer</b>	:	Medentech, Clonard Road, Wexford, Ireland Tel: +353 53 9117900 Fax: +353 53 9141271 e-mail: msds@medentech.com
<b>Distributor</b>	:	Assist Natural Products and Services LLC - Lena, IL USA Tel: 815.369.2195 E-mail: office@assist-nps.com

Ireland: Poisons Information for medical professionals: Telephone 01 809 2566 (8.00am – 10.00pm).

**2. HAZARDOUS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

<b>Classification in accordance with Regulation (EC) No 1272/2008 [CLP/GHS]</b>	Ox. Sol. 2 H272, May intensify fire; oxidiser. Acute Tox. 4, H302 Harmful if swallowed Eye Irrit. 2 H319 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
<b>Additional information</b>	EUH031- Contact with acids liberates toxic gas
<b>Classification in accordance with Directive 67/548/EEC</b>	O; R8: Contact with combustible material may cause fire. R31: Contact with acids liberates toxic gas. R 36/37: Irritating to eyes and respiratory system. Harmful (Xn), R22: Harmful if swallowed Dangerous for the Environment; (N) R 50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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**2.2 Label elements** Labelling in accordance with the CLP Regulation EC (No) 1272/2008



**Signal word**

Danger

**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.  
P221 - Take any precaution to avoid mixing with combustibles, acids, ammonia, bases, floor sweeping compounds, calcium hypochlorite, reducing agents, organic solvents and compounds  
P280 - Wear protective gloves.  
P273 - Avoid release to the environment.  
P312 - Call a POISON CENTER or doctor/physician if you feel unwell  
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.  
P403 + P233 - Store in a well-ventilated place; Keep container tightly closed  
P501 - Dispose of contents/container in accordance with applicable local, regional, national and/or international regulations.

**2.3 Other hazards** None

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

Components	Weight %	Index No.	EC No.	EU Classification
Trichloroisocyanuric Acid CAS No. 87-90-1	98-100%	# 613-031-00-5	201-782-8	Ox. Sol. 2 H272 Acute Tox. 4 H302 Eye Irrit. 2 H319 STOT SE 3 H335 Aquatic Acute 1 H400 Aquatic Chronic 1 H410 EUH031 (In accordance with CLP 1272/2008) ----- O; R8 R31 Xi; R36/37 Xn; R22 N; R50/53 (In accordance with DSD 67/548/EEC)

**4. FIRST AID MEASURES.**

**4.1 Description of first aid measures**

**Eye contact:** Holding the eyelids apart, flush eyes promptly with copious flowing water for at least 20 minutes.  
Get medical attention immediately.

**Skin contact:** Remove contaminated clothing. Wash skin thoroughly with mild soap and plenty of water for at least 15 minutes. Wash clothing before re-use.  
Get medical attention immediately.

**Inhalation:** In case of dust inhalation or breathing fumes released from heated material, remove person to fresh air. Keep him quiet and warm. Apply artificial respiration if necessary and get medical attention immediately.

**Ingestion:** If swallowed, wash mouth thoroughly with plenty of water and give water to drink.  
Get medical attention immediately.

\*\*\*\*\*  
 NOTE: Never give an unconscious person anything to drink.  
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**4.2 Most important symptoms and effects, both acute and delayed**

- **Ocular:** Severe irritation and/or burns can occur following eye exposure. Contact may cause impairment of vision and corneal damage.
- **Dermal:** Dermal exposure can cause severe irritation and/or burns characterized by redness, swelling and scab formation.



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- 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 to the lung.
  - **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.

- 4.3 Indication of immediate medical attention and special treatment needed**  
Corrosive. In case of ingestion DO NOT induce vomiting. No specific antidote. Treat symptomatically and supportively.  
**Medical conditions aggravated by exposure** Asthma, respiratory and cardiovascular disease.

**5. FIRE-FIGHTING MEASURES.**

- 5.1 Extinguishing media**  
Water. Do not use dry chemical extinguisher containing ammonia compounds.
- 5.2 Special hazards arising from the substance or mixture**  
When heated to decomposition, may release poisonous and corrosive fumes of nitrogen trichloride, chlorine, nitrous oxides, cyanates, carbon monoxide and carbon dioxide.
- 5.3 Advice for fire-fighters**  
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.

**6. ACCIDENTAL RELEASE MEASURES.**

- 6.1 Personal precautions, protective equipment and emergency procedures**  
For small spills in a well-ventilated area, 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.  
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.
- 6.2 Environmental precautions**  
Prevent entry into sewers and watercourses.
- 6.3 Methods and material for containment and cleaning up**

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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.
- **In air** Vapors may be suppressed by the use of water fog.

**6.4 Reference to other sections**  
None.

**7. HANDLING AND STORAGE.**

- 7.1 Precautions for safe handling**  
Avoid bodily contact. Upon contact with skin or eyes, wash off with water.
- 7.2 Conditions for safe storage, including any incompatibilities**  
Store in a dry, cool, well-ventilated area 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.
- 7.3 Specific end use(s)**  
Provided in sections 7.1, 7.2

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION.**

**8.1 Control parameters**

Components	Weight %	ACGIH-TLV Data	UK (WEL) - TWA	Netherlands national MAC data
Trichloroisocyanuric Acid 87-90-1	98-100	Not determined	Not determined	Not determined

- 8.2 Exposure controls**
  - 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
    - **Eye protection**  
Use chemical safety glasses to avoid eye contact.  
Where industrial use occurs, 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 carefully before eating or smoking.  
Safety shower and eye bath should be provided.

**9. Physical and Chemical Properties.**

**9.1 Information on basic physical and chemical properties**  
**Appearance** White granules or tablet-form product



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<b>Odour</b>	Sharp, chlorine-like bleach odor
<b>Odour threshold</b>	Not determined
<b>pH</b>	2.7-2.9 (1% solution)
<b>Melting point/range</b>	225-230°C (decomposes)
<b>Boiling point/range</b>	Not applicable (decomposes)
<b>Evaporation rate (ether=1)</b>	Not applicable under standard conditions
<b>Vapour pressure</b>	Not applicable under standard conditions
<b>Vapor density</b>	Not applicable under standard conditions
<b>Flash point</b>	Not applicable
<b>Specific gravity</b>	>1
<b>Bulk density</b>	Granular - 0.89-1.1 g/cc Tablet - 1.16-1.9 g/cc
<b>Solubility:</b>	
- Solubility in water	1.2 g/100ml at 25°C
- Solubility in other solvents	Not available
<b>Auto-ignition temperature</b>	Not applicable
<b>Decomposition temperature</b>	225 °C (437°F)
<b>Viscosity</b>	No data available
<b>Explosive properties</b>	Not available
<b>Oxidising properties</b>	Oxidizer
<b>Particle size:</b>	Not available

**10. STABILITY AND REACTIVITY.**

- 10.1 Reactivity**  
Contact with small amounts of water may result in an exothermic reaction with the liberation of toxic fumes.
- 10.2 Chemical stability**  
Stable under normal conditions
- 10.3 Possibility of hazardous reactions**  
Hazardous polymerisation will not occur
- 10.4 Conditions to avoid**  
Heating above 225 °C
- 10.5 Incompatible materials**  
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 monoammonium compounds.

**11. TOXICOLOGICAL INFORMATION.**

- 11.1 Information on toxicological effects**
- Acute toxicity:**
- Rat oral LD50 809 mg/kg
  - Rabbit dermal LD50 >2000 mg/kg
- Serious eye damage/ irritation** Corrosive
- Skin corrosion/irritation** Corrosive
- Respiratory or skin sensitisation** Not a sensitizer

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**Mutagenicity** Not mutagenic in five Salmonella strains and one E.coli strain with or without mammalian microsomal activation.  
**Carcinogenicity** Not classified by IARC, OSHA, EPA.  
 Not included in NTP 11th 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.  
**Specific Target Organ Toxicity (STOT) - Single exposure**  
 No effects on specific target organs have been identified  
**Specific Target Organ Toxicity (STOT) - Repeat exposure**  
 Prolonged exposure may cause damage to the respiratory system.  
 Chronic inhalation exposure may cause impairment of lung function and permanent lung damage.  
**Aspiration hazard** Not expected to occur  
**Medical conditions aggravated by exposure**  
 Asthma, respiratory and cardiovascular disease.

**12. ECOLOGICAL INFORMATION.**

**12.1 Toxicity**  
**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 1600 mg/kg  
 - Dietary LC50, Mallard duck >10,000 ppm  
 - Dietary LC50, Bobwhite quail 7422 ppm  
**12.2 Persistence and degradability** No data  
**12.3 Bioaccumulative potential** No data  
**12.4 Mobility in soil** No data  
**12.5 Results of PBT and vPvB assessment** No data  
**12.6 Other adverse effects** Germany, water endangering classes (WGK) 3

**13. DISPOSAL CONSIDERATIONS.**

**13.1 Waste treatment methods/Waste disposal**  
 Dispose of in a safe manner in accordance with local/national regulations.

**14. TRANSPORT INFORMATION.**

**14.1 UN No.** 2468  
**14.2 UN Proper Shipping Name** Trichloroisocyanuric Acid Dry  
**14.3 Hazard Class** 5.1 - Oxidizing substances  
**14.4 Packing group** II  
**14.5 Environmental hazards** Environmentally Hazardous Substance/Marine Pollutant  
**14.6 Special precautions for user** None

**15. REGULATORY INFORMATION.**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**EU** Aquatabs In-Line active ingredient reported in EINECS  
**EU DIRECTIVES** Aquatabs In-Line active ingredient is supported by ICL-IP Europe B.V./Clearon under the Biocidal Products Directive (98/8/EC).

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<b>USA</b>	Aquatabs In-Line active ingredient reported in the EPA TSCA Inventory. This product is registered under FIFRA.
<b>Australia</b>	Aquatabs In-Line active ingredient listed in AICS
<b>Canada</b>	Aquatabs In-Line active ingredient listed in DSL
<b>China inventory</b>	Aquatabs In-Line active ingredient listed
<b>Japan</b>	Aquatabs In-Line active ingredient ENCS No. 5-1044, 5-1041
<b>Korea</b>	Aquatabs In-Line active ingredient KE-34101
<b>New Zealand Inventory</b>	Aquatabs In-Line active ingredient listed in NZIoC
<b>Philippines</b>	Aquatabs In-Line active ingredient listed in PICCS

**15.2 Chemical Safety Assessment**  
 A Chemical Safety Assessment for Aquatabs In-Line active ingredient has not yet been carried out under the REACH Regulation.

**16. OTHER INFORMATION.**

The above information is intended to give general guidance as to health and safety. Whilst it is correct to the best of our knowledge and belief, no warranty can be given or implied that it will be adequate or applicable for all cases nor that the product will be suitable for any particular purpose since conditions of use are outside our control.

REVISION NO: 0	DATE 02/11/2018
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**REVISION HISTORY:**  
 Revision No. 0 - Created due to request for individual SDS.