



# SAFETY DATA SHEET

According to OSHA Hazard Communication Standard 29 CFR 1910.1200 (GHS)

Product name **New Wave Granular 90**  
Product id AS\_9716G\_NW  
Revision date 12/12/2016 Revision: 0

## 1. Identification of the substance & the company

**Chemical name** Trichloro-s-triazinetrione  
**Synonym(s)** Trichloroisocyanuric Acid; TCCA; Trichlor; Trichloro-s-triazinetrione; Symclosene  
**Chemical formula**  $C_3Cl_3N_3O_3$   
**Chemical family** Chloroisocyanurate  
**Molecular weight** 232.41  
**Type of product and use** Disinfectant, sanitizer, fungicide, bactericide, and algacide for pools, spas, hot tubs.  
**Supplier** NAVA Water Products  
95 MacCorkle Ave. SW,  
South Charleston, WV 25303,  
USA  
Toll Free Number: 1-800-811-2327  
**Emergency Telephone** Chemtrec: (800) 424-9300  
Medical: (800) 420-9236

## 2. Hazards identification

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

### Labels and other form of warning

#### Symbol(s)



**Signal Word** DANGER



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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

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

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

### 3. Composition / information on ingredients

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



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## 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**                              Causes serious eye irritation
- **Inhalation**                                May cause respiratory tract irritation
- **Ingestion**                                Harmful if swallowed.

**Note to physician**                        Probable mucosal damage may contraindicate the use of gastric lavage. No specific antidote. Treat symptomatically and supportively.

## 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.



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<b>Fire fighting procedure</b>	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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## 6. Accidental release measures

<b>Personal precautions</b>	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.
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<b>Methods for cleaning up</b>	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.
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<b>Environmental precautions</b>	Prevent entry into sewers and watercourses
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- **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.



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## 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.

## 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
- **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 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 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)** Not applicable under standard conditions



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Vapor pressure Not applicable under standard conditions  
Vapor density Not applicable under standard conditions  
Solubility:  
- Solubility in water 1.2 g/100ml at 25°C  
- Solubility in other solvents Not available  
Auto-ignition temperature Not applicable  
Decomposition temperature 225 °C (437°F)  
Viscosity No data available  
Bulk density Granular - 0.89-1.1 g/cc  
Tablet - 1.16-1.9 g/cc  
Specific gravity >1  
Explosive properties Not available  
Oxidizing properties Oxidizer  
Particle size Not available

## 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 monoammonium 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 809 mg/kg  
- Rabbit dermal LD50 >2000 mg/kg  
- Dermal irritation (rabbit) Corrosive







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## 15. Regulatory information

**USA** Reported in the EPA TSCA Inventory.  
This product is registered under FIFRA

- EPA Registration no. 69470-28-75217

- Emergency overview in accordance to EPA Master Label **DANGER**  
Hazards to humans and domestic animals  
Corrosive  
Causes irreversible eye damage  
May be fatal if inhaled  
Harmful if swallowed or absorbed through skin  
Strong oxidizing agent  
This pesticide is toxic to fish and aquatic organisms.

- 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

**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

