Section 1 - Identification of the Substance/Mixture and of the Company/Undertaking

Product Name: Trichloroisocyanuric Acid
(20g/200g Multifunction talbet)

Synonym(s): 1,3,5-Trichloro-1-triazine-2,4,6(1H,3H,5H)-trione

Molecular Formula: C3Cl3N 3O3 **Molecular W eight:** 232.41

Details of the supplier of the safety data sheet:

Supplier(Importer): Wilton Bradley Europe B.V.
Address: Barbara Strozzilaan 201, 1083HN, Amsterdam, Netherlands
Contact person (E-mail): sales@wiltonbradley.co.uk
Telephone: +44 (0)1626 835400
Fax: +44 (0)1626 836656
Emergency telephone number
+44 (0)333 301 0644
Available outside office hours? YES ☐ NO ☒

Section 2 - Hazards Identification

Emergency Over view :

NFP A Ratings (Scale 0-4) :

Health : 2

Fir e: 0

Reactivity : 2

Special notice : OX

Hazard Symbols : XN O

GHS Classification:

Classification of the substance: Acute toxicity (oral) - Category 4

Serious eye damage/eye irritation :

Category 2 **Long-term aquatic hazard**: Category

1 **Label elements**:

Hazard statement(s):

H272 : May intensify fire; oxidiser.

H302 : Harmful if swallowed.

H319 : Causes serious eye irritation.

H335 : May cause respiratory irritation.

H400 : Very toxic to aquatic life.

H410 : Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

Prevention :

P210 : Keep away from heat.

P220 : Keep/Store away from clothing, other chemicals, acids, and combustible materials.

P221 : Take any precaution to avoid mixing with combustibles, acids and other chemicals.

P261 : Do not breathe dust.

P264 : Wash face and 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.

P273 : Avoid release to the environment.

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

Response :

P301 + P312 + P330 + P331 : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician if you feel unwell.

P304 + P340: If INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P310 + P351 + P338 : 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 or doctor/physician.

P370 + P378 : In case of fire: Use water for extinction. **P391** : Collect spillage.

Storage :

P403 + P233 : Store in a well-ventilated place. Keep container tightly closed. **P405** : Store locked up. **Disposal** :

P501 : Dispose of contents / container in accordance with local regulations.

Hazar d symbol(s): DANGER

Section 3 - Composition/Information on Ingredients

CHEMICAL NAME	CAS NO.	W T%
Trichloroisocyanuric acid	87-90-1	96.6 MIN
Copper Sulfate	7758-99-8	1.0 MAX
Boric Acid	10043-35-3	0.5 MAX
Aluminium Sulfate	10043-01-3	1.4 MAX

Section 4 - First Aid Measures

Description of first aid measures :

Immediately remove contaminated clothing. If danger of loss of consciousness, place patient in recovery position and transport accordingly. Apply artificial respiration if necessary. First aid personnel should pay attention to their own safety.

In case of eyes contact : Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apar t and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

In case of skin contact : Immediately remove all contaminated clothing, including footwear. Flush skin with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

In case of inhalation : Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If irritation or discomfort persists seek medical attention.

In case of ingestion : Rinse mouth out with plenty of water. Seek medical attention immediately. Call a poison control centre or doctor for treatment advice. Do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (headdown position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Avoid alcohol.

Most important symptoms and effects, both acute and delayed : Symptoms: Skin irritation, eye irritation, further symptoms are possible.

Indication of any immediate medical attention and special treatment needed : Treatment: Symptomatic treatment (decontamination, vital functions).

Section 5 - Firefighting Measures

Fire and Explosion Hazards : Negligible fire hazard. May intensify fire; strong oxidizer.

Physical Hazards : If heated, this product will undergo self-sustaining decomposition with the evolution of heat and dense noxious gases but no visible flame. When wet material meets ammonia/ammonium/amines or other nitrogen-containing compounds, it may generate nitrogen trichloride, an explosion hazard.

Autoignition Temperature: N/A

Flash Point : N/A

Explosion Limits, Lower : N/A

Explosion Limits, Upper: N/A

Sensitivity to Mechanical Impact : Not sensitive

Sensitivity to Static Discharge : Not sensitive

Hazardous Combustion Products : Thermal decomposition products or combustion: chlorine, nitrogen, nitrogen trichloride, cyanogen chloride, oxides of carbon, phosgene.

Fire Extinguishing Media : Flood with water. Do not use dry chemicals containing ammonia/ammonium/amin es or other nitrogen-containing compounds, carbon dioxide or halogenated extinguishing agents.

Fire Fighting : Consider evacuation of personnel located downwind. Keep unnecessary people away, isolate hazard area and deny entry. Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Wear NIOSH approved positive-pressure self-contained breathing apparatus. Material which appears undamaged except for being damp on the outside, should be opened and inspected immediately. DO NOT attempt to reseal contaminated drums. Damp material should be neutralized to a non-oxidizing state.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel :

Protective equipment : Use extreme caution in handling spilled material. Ventilate the area before entry. Use spark proof tools and explosion proof equipment. Do not walk through spilled material. Do not mix this product with any other chemicals, including any other pool chemicals of any kind, such as other disinfection or "shock" pool products. Contamination with moisture, acids, organic matter, other chemicals (including, but not limited to cleaning chemicals and other pool chemicals), petroleum or paint products or other easily combustible materials may start a chemical reaction with generation of heat, liberation of hazardous gases and possible violent reaction leading to fire or explosion. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures : Do not put water directly on this product as a gas evolution may occur.

For emergency responders: Wea r relevant protective equipment (NIOS H/MSHA approved respirator, protective clothing, gloves and tightly fitting goggles).

Environmental precautions : This material is heavier than and soluble in water. Stop flow of material into water as soon a possible. Begin monitoring for available chlorine and pH immediately.

Methods and material for containment and cleaning up :

Containment Measures : Do not contaminate spill material with any organic materials, ammonia/ammonium/amines, urea, or other nitrogen-containing compounds.

Clean up Measures : Clean up spills immediately. Sweep up, the n place into a suitable container for disposal. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. 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. Clean up all spill material with clean, dry dedicated equipment and place in a clean dry container.

Section 7 - Handling and Storage

Storage : Store and handle in accordance with all current regulations and standards. (NFPA Oxidizer Classification 1.) Do not allow water to get in container. If liner is present, tie after each use. Keep container tightly closed and properly labelled. Store containers on pallets. Keep away from food, drink and animal feed. Keep separated from incompatible substances. Keep away from ignition sources, heat and flame.

Storage Incompatibility : Segregate from strong reducing agents, ammonia, ammonium salts, amines, nitrogen containing compounds, acids, strong bases, moist air or water.

Handling : Do not get in eyes, on skin, or on clothing. Avoid breathing vapours or dust when opening container. Avoid creation of dust. Wash thoroughly after handling. Neve r add water to this product. Always add product to large quantities of water. Use clean, dry utensils. Do not add the product to any dispensing device containing residuals of other products.

Section 8 - Exposure Controls/Personal Protection

Control Parameters:

OSHA Vacated PELs: No OSHA Vacated PELs are listed for this chemical.

Exposure controls :

Appropriate Engineering Controls :

Engineering Measures/Controls : Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

Personal Protective Equipment :

Eye and face protection : Wear safety glasses or goggles.

Skin protection : Personal protective equipment for the bod y should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. HANDS: Chemical resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. GLOVE S: Nitrile, neoprene, and butyl rubber.

Respiratory protection : If workers are expose d to concentrations above the exposure limit, they must use appropriate, certified respirators. Us e a properly fitted, air purifying or air fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Thermal hazards : Not available.

Environmental Exposure Controls : Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

Appearance : white tablets, powder, or granular solid

Odor : chlorine odor

pH : 2.7 - 3.3 (25, 1% solution)

Vapor Pressure (kP a) : N/A

Vapor Density: N/A

Evaporation Rate: N/A

Viscosity: N/A

Boiling Point : N/A

Freezing/Melting Point : N/A

Decomposition Temp. : 225

Solubility: 1.2 g/100ml (25)

Density: N/A

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid : Incompatible materials, strong light, high temperature and moisture.

Hazardous Decomposition Products : Hydrogen chloride, nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, nitrogen.

Hazardous Polymerization : Has not been reported.

Section 11 - Toxicological Information

Toxicity Data:

LD50 (rat, oral) : 809 mg/kg

LD50 (rabbit, der mal) : 7600 mg/kg

Primary Skin Irritation : Slightly Corrosive (rabbit, 24 hr)

Primary Eye Irritation : Corrosive (rabbit, 24 hr)

Dot Skin Corrosion : Not Corrosive (rabbit, 4 hr)

Local Effects : Corrosive: inhalation, skin, eye, ingestion

Acute Toxicity Level:

Ingestion: moderately toxic

Der mal Absorption: slightly toxic

Health Effects :

Inhalation :

Acute Exposure: This material in the form as sold is not expected to produce respiratory effects. If ground or otherwise in a powdered form, effects similar to a corrosive substance may occur. May cause severe irritation of the respiratory tract with coughing, choking, pain and possibly burns of the mucous membranes. In some cases, pulmonary edema may develop, either immediately or more often within a period of 5-72 hours. The symptoms may include tightness in the chest, dyspnea, frothy sputum, cyanosis, and dizziness. Physical findings may include moist rales, low blood pressure and high pulse pressure. Severe cases may be fatal.

Chronic Exposure: Depending on the concentration and duration of exposure, repeated or prolonged exposure may cause inflammatory and ulcerative changes in the upper respiratory tract.

Skin Contact :

Acute Exposure: Direct contact with wet material or moist skin may cause severe irritation, pain, and possibly burns. This material is not considered to be skin sensitizer based on studies with guinea pigs.

Chronic Exposure: Effects depend on concentration and duration of exposure. Repeated or prolonged contact may result in dermatitis or effects similar to acute exposure.

Eye Contact :

Acute Exposure: Direct contact may cause severe irritation, pain and burns, possibly severe, and permanent damage including blindness. The degree of injury depends on the concentration and duration of contact.

Chronic Exposure: Effects depend on concentration and duration of exposure. Repeated or prolonged contact may result in conjunctivitis or effects as in acute exposure.

Ingestion :

Acute Exposure: May cause immediate pain and severe burns of the mucous membranes. There may be discoloration of the tissues. Swallowing and speech may be difficult at first and then almost impossible. The effects on the esophagus and gastrointestinal tract may range from irritation to severe corrosion. Edema of the epiglottis and shock may occur.

Chronic Exposure: Depending on the concentration, repeated ingestion may cause effects as with acute ingestion.

Section 12 - Ecological Information

Fish toxicity :

This material is believed to be highly toxic to aquatic life.

LC50 (Bluegill Sunfish, 96 hr) : 0.20-0.40 mg/L

LC50 (Rainbow T rout, 96 hr) : 0.08-0.37 mg/L

Invertebrate toxicity :

LC50 (Water flea, 48hr): 0.17-0.80 mg/L

Algal toxicity :

LC50 (Green algae, 3hr): <0.5 mg/L

Biodegradation: This material is subject to hydrolysis. Cyanuric acid produced by hydrolysis is biodegradable.

Persistence : This material is believed not to persist in the environment. Hydrolysis reaction occur s in minutes. None of the hydrolysis products are bioaccumulative or persistent. Photoreactivity of free available chlorine is 30 minutes at 30 (pH 7). Half-life increases to as much as 8 hours in the presence of Cyanuric acid.

Bioconcentration: This material is believed not to bioaccumulate.

Other Ecological Information :

LD50 (oral, Mallard duck) : 1021-1891 mg/kg **LD50 (oral, N. Bobwhite)** : 1674-2254 mg/kg

LC50 (inhalation, Mallard duck) : >10,000 ppm

LC50 (inhalation, N. Bobwhite) : 7253-10,000 ppm

Section 13 - Disposal Considerations

Use or reuse if possible. This material is a registered pesticide. Dispose in accordance with all applicable regulations. Do not put product, spilled product, or filled or partially filled containers into the trash or waste compactor. Contact with incompatible materials could cause a reaction and fire. DO NOT transport wet or damp material. Dam p material should be neutralized to a non-oxidizing state. Contact the supplier for instructions for handling and disposal of damp material. See product label for container disposal information.

May be subject to disposal regulations: Hazardous Waste Number(s): D003.

Section 14 - Transport Information

IA TA:

Proper Shipping Name: TRICHLOROISOCYANURIC ACID

UN Number: UN 2468

Hazar d Class/Division : 5.1

Packing Category: Oxidizing solid.

Packing Group : II

IMDG/IMO:

Proper Shipping Name: TRICHLOROISOCYANURIC ACID

UN Number: UN 2468

Hazar d Class : 5.1

Packing Category: Oxidizing solid.

Packing Group : II

RID/ADR: UN 2468 5.1/PG 2

Section 15 - Regulatory Information

US FEDERAL:

TSCA : CAS# 87-90-1 is listed on the TSCA inventory.

Health & Safety Reporting List: None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules: None of the chemicals in this product are under a Chemical Test Rule.

Section 12b: None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

SARA :

Section 302 (RQ) : None of the chemicals in this material have an RQ.

Section 302 (TPQ) : None of the chemicals in this product have a TPQ. **Section 313** : No chemicals are reportable under Section 313.

Clean Air Act :

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Wat er Act :

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA : None of the chemicals in this product are considered highly hazardous by OSHA.

Hazard Symbols : XN O

Risk Phrases :

R22 : Harmful if swallowed.

R31 : Contact with acids liberates toxic gas.

R36/37: Irritating to eyes and respiratory system.

R8 : Contact with combustible material may cause fire.

Safety Phrases :

S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. **S41** : In case of fire and/or explosion do not breathe fumes.

S8 : Keep container dry.

WGK (Water Danger/Protection) : CAS# 87-90-1: No information available.

Canada :

CAS# 87-90-1 is listed on Canada's DSL/NDSL List.

WHMIS: N/A.

CAS# 87-90-1 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

ALWAYS COMPLY WI TH ALL APPLICABLE INTERNATIONAL, FEDERAL, STATE AND LO CAL REGULATIONS REGARDING THE TRANSPORTATION, STORAGE, USE AND DISPOSAL OF THIS CHEMICAL.

Due to the changing nature of regulatory requirements, the REGULATORY INFORMATION listed in Section 15 of this document should NOT be considered all-inclusive or authoritative. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

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