

# שירות-אספקה-אחזקה-ייעוץ לבריכות שחיה ומערכות מים

כימיקלים- רובוטים – בקרה ממוחשבת – מכשירי מדידה ובקרה- -חלקי חילוף – אביזרי PVC – משאבות

# TRICHLOROISOCYANURIC ACID

### MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE MATERIAL

**Product Name:** 

TRICHLOROISOCYANURIC ACID

Other name(s): TICA, Stabilised pool chlorine tablets, Trichloroisocyanuric acid tablets, Trichlor,

Trichloro-s-triazine trione, Trichloro-1,3,5-triazine trione Recommended Use: Bleaching, sanitising, pool chemical.

#### 2. HAZARDS IDENTIFICATION

Transport by Road and Rail; DANGEROUS GOODS.

Risk Phrases: Contact with combustible material may cause fire. Harmful if swallowed. Contact with acids liberates toxic gas. Irritating to eyes and respiratory system. Very toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment. Safety Phrases: Keep out of the reach of children. Keep container dry. Do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of fire and/or explosion do not breathe fumes. This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions safety data sheets.

Poisons Schedule: S6 Poison.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product Description: 90% available chlorine.

Components CAS Number Proportion Risk Phrases Trichloroisocyanuric acid 87-90-1 >99% R8, R22, R31, R36/37, R50/53

### 4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor at once.

#### Inhalation:

Remove victim from area of exposure -avoid becoming a casualty. Remove contaminated clothing and loosen remaining

clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds

breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood -cyanosis).

ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial

respiration if patient is not breathing. Seek immediate medical advice.

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### Skin Contact:

If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running

water. If swelling, redness, blistering or irritation occurs seek medical assistance. Launder contaminated clothing before

# reuse. Eye Contact:

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a

Poisons Information Centre or a doctor, or for at least 15 minutes.

## Ingestion:

Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Get to a doctor or hospital quickly.

Medical attention and special treatment:

Treat symptomatically.

### 5. FIRE FIGHTING MEASURES

Hazards from combustion products:

Oxidizing substance. Non combustible, but will support combustion of other materials. Decomposes on heating emitting

toxic fumes including those of chlorine, oxides of carbon and oxides of nitrogen.

Precautions for fire fighters and special protective equipment:

Non-combustible material. Keep containers cool with water spray. Heating can cause expansion or decomposition of the

material, which can lead to the containers exploding. If safe to do so, remove containers from the path of fire. Fire fighters to

wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

Avoid breathing products of combustion.

Suitable Extinguishing Media:

Not combustible, however, if material is involved in a fire use: Water spray (large quantities).

Hazchem Code: 1W

# 6. ACCIDENTAL RELEASE MEASURES

Emergency procedures:

Clear area of all unprotected personnel. Evacuate personnel from downwind areas. Shut off all possible sources of ignition.

Avoid breathing in vapours or dust. Work up wind or increase ventilation. Wear protective equipment to prevent skin and eye

contact and inhalation of vapours/dusts. For large spills notify the Emergency Services.

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Methods and materials for containment and clean up:

Contain -prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in

properly labelled containers or drums for disposal. DO NOT return spilled material to original container. Airsupplied masks

are recommended to avoid inhalation of toxic material. If appropriate: DO NOT add small amounts of water to trichloroisocyanuric acid. Collect and transfer to large volume of water -do NOT use a metal container.

### 7. HANDLING AND STORAGE

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

Conditions for safe storage:

Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from sources of heat or ignition. Store away

from foodstuffs. Keep away from children and animals. Store away from incompatible materials described in Section 10.

Keep dry -reacts with water, may lead to drum rupture. Calcium hypochlorite (dry or hydrated) and its mixtures are

incompatible with, and must be stored away from, dichloroisocyanuric acid, ammonium nitrate, trichloroisocyanuric acid, or

any chloroisocyanurate, strong acids, aluminium, iron, lead, magnesium, and zinc. Ensure pallets are clean and free of oil.

Keep containers closed when not in use -check regularly for spills.

Precautions for safe handling:

Keep out of reach of children. Avoid skin and eye contact and breathing in dust. Avoid handling which leads to dust

formation.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits: No value assigned for this specific material by the National Occupational Health and

Safety Commission. However, Exposure Standard(s) for decomposition product(s):

Chlorine: Peak Limitation = 3 mg/m3 (1 ppm)

As published by the National Occupational Health and Safety Commission.

Peak Limitation -a ceiling concentration which should not be exceeded over a measurement period which should be as short as possible but not exceeding 15 minutes.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

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# Engineering controls:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Exposure Standards.

Avoid generating and breathing in dusts. Use with local exhaust ventilation or while wearing dust mask. Keep containers

closed when not in use.

#### Personal Protective Equipment:

The selection of PPE is dependant on a detailed risk assessment. The risk assessment should consider the work situation,

the physical form of the chemical, the handling methods, and environmental factors.

Wear overalls, chemical goggles and impervious gloves. Avoid generating and inhaling dusts. If dust exists, wear dust

mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating,

drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Crystalline Powder, Granular, Tablets

Colour: White Odour: Chlorine

Odour Threshold: Not available Molecular Formula: C3Cl3N3O3 Solubility: Sparingly soluble in water. Specific Gravity: 2.07 @20°C

Relative Vapour Density (air=1): Not available Vapour Pressure (20 °C): Not available Flash Point (°C): Not applicable Solubility in water (g/L): 12 @25°C

Solubility in water (g/L): 12 @25°C Melting Point/Range (°C): Not available Boiling Point/Range (°C): Not available

Decomposition Point (°C): 225 pH: 2.8 (1% aqueous solution) Viscosity: Not applicable

Partition Coefficient: Not available

# 10. STABILITY AND REACTIVITY

Chemical stability:

Stable if stored and handled under recommended conditions.

### Conditions to avoid:

Avoid contact with combustible substances. Avoid contact with other chemicals. Avoid contact with foodstuffs. Avoid exposure to heat, sources of ignition, and open flame. Avoid exposure to moisture.

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### Incompatible materials:

Incompatible with combustible materials, acids, water, alkalis, calcium hypochlorite (dry or hydrated), nitrogen compounds, sodium hypochlorite, reducing agents, ammonium compounds and oils and greases. Incompatible with heat and hot surfaces. Calcium hypochlorite (dry or hydrated) and its mixtures are incompatible with dichloroisocyanuric acid, ammonium nitrate, trichloroisocyanuric acid, or any chloroisocyanurate, strong acids, aluminium, iron, lead, magnesium, and zinc.

Hazardous decomposition Chlorine. Oxides of carbon. Oxides of nitrogen. products:

#### Hazardous reactions:

Oxidising agent. Supports combustion of other materials and increases intensity of a fire. Reacts vigorously with acids liberating toxic chlorine gas. Heating can cause expansion or decomposition of the material, which can lead to the containers exploding. Hazardous polymerisation will not occur.

#### 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product

label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

### Ingestion:

Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.

Eye contact:

Skin contact:

Inhalation:

Long Term Effects:

An eye irritant. May cause watering of eyes and blurred vision.

Contact with skin may result in irritation.

Material is irritant to the mucous membranes of the respiratory tract (airways).

No information available for the product.

Toxicological Data:

Oral LD50 (rat): 406 mg/kg.

SKIN: Moderate irritant (rabbit). Std Draize test. 500 mg/24 hr EYES: Severe irritant (rabbit). (Standard Draize test) 500mg/24H

## 12. ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways.

Aquatic toxicity: Very toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment.

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# 13. DISPOSAL CONSIDERATIONS Disposal methods:

Refer to Waste Management Authority. Dispose of material through a licensed waste contractor.

14. TRANSPORT INFORMATION Road and Rail Transport

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

OXIDIZING AGENT 5.1

UN No: 2468

Class-primary 5.1 Oxidizing Agent

Packing Group: II

Proper Shipping Name: TRICHLOROISOCYANURIC ACID, DRY

Hazchem Code: 1W

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