



## MATERIAL SAFETY DATA SHEET

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product Name:** TRICHLOROISOCYANURIC ACID DRY (MULTI TABS)  
**Trade Name:** MULTI TABS  
**Synonym(s):**  
**Product Use:** For the control of algae and bacteria in swimming pools  
**Supplier Name:** Argo International Ltd  
**Address:** 9 St Benedict's St, Eden Terrace, Auckland  
**Telephone:** +64 9 377 5061  
**Fax:** +64 9 309 1992  
**Email:** argo@argoint.co.nz  
**Website:** Argoint.co.nz  
**Emergency Number(s):** **For advice, contact the National Poisons Centre (New Zealand: Phone 0800 764 766) or a doctor**

### SECTION 2: HAZARDS IDENTIFICATION

**This product is classified as:** Xn, Harmful. Xi, Irritating. N, Dangerous to the environment.

Hazardous according to the criteria of SWA.

Dangerous according to the Australian Dangerous Goods (ADG) Code.

**Risk Phrases:** R8, R22, R36/37/38, R50/53.

Contact with combustible material may cause fire.

Harmful if swallowed.

Contact with acids releases toxic gas.

Irritating to eyes, respiratory system and skin.

Very toxic to aquatic organisms.

May cause long-term adverse effects to the aquatic environment.

**Safety Phrases:** S2, S8, S14, S20, S22, S26, S38, S41, S60, S61, S24/25

Keep out of reach of children.

Keep container dry.

Keep away from acids, combustibles, flammable and readily oxidised materials.

When using, do not eat or drink.

Do not breathe dust.

In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or the National Poisons Centre.

In case of insufficient ventilation, wear suitable respiratory equipment.

In case of fire and/or explosion, do not breathe fumes.

Avoid contact with skin and eyes.

**Disposal:** This material and its container must be disposed of as hazardous waste.

**Environment:** Avoid release into the environment.

**HSNO Classifications:** 5.1.1B, 6.1D, 6.3A, 8.3A, 9.1A, 9.2D, 9.3B.

#### Potential Health Effects

##### Inhalation:

**Short Term Exposure:** Available data indicates that this product is an inhalation irritant. Symptoms may include headache, irritation of nose and throat and increased secretion of mucous in the nose and throat. Other symptoms may also become evident, but they should disappear once exposure has ceased.

**Long Term Exposure:** No data for health effects associated with long term inhalation.

##### Skin Contact:



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<b>Short Term Exposure:</b>	Available data indicates that this product is a skin irritant. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but should disappear once exposure has ceased.
<b>Long Term Exposure:</b>	No data for health effects associated with long term skin exposure.
<b>Eye Contact:</b>	
<b>Short Term Exposure:</b>	This product is an eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.
<b>Long Term Exposure:</b>	No data for health effects associated with long term eye exposure.
<b>Ingestion:</b>	
<b>Short Term Exposure:</b>	Significant oral exposure is considered to be unlikely. Available data shows that this product is harmful, but symptoms are not available. However, this product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but they should disappear once exposure has ceased.
<b>Long Term Exposure:</b>	No data for health effects associated with long term ingestion.
<b>Carcinogen Status:</b>	
<b>SWA:</b>	No significant ingredient is classified as carcinogenic by SWA.
<b>NTP:</b>	No significant ingredient is classified as carcinogenic by NTP.
<b>IARC:</b>	No significant ingredient is classified as carcinogenic by IARC.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<b>Chemical Nature:</b>	Trichloroisocyanuric Acid and Copper Sulphate Blend.
<b>Physical Description:</b>	Granules or Tablets.
<b>Colour:</b>	White.
<b>APVMA Code:</b>	53548.
<b>Hazardous Nature:</b>	Classified as Xn, Harmful. Xi, Irritating. N, Dangerous to the environment.
<b>SUSMP Classification:</b>	S6.
<b>ADG Classification:</b>	Class 5.1: Oxidising substance.
<b>UN Number:</b>	2468.
<b>Name:</b>	Trichloroisocyanuric Acid, Dry.

Ingredients:	CAS No	Conc%	TWA(mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Chlorine as Trichloroisocyanuric Acid	87-90-1	800g/kg	Not set	Not set
Copper as Copper Sulphate Pentahydrate	7758-98-7	7.5g/kg	Not set	Not set
Other non-hazardous ingredients	Secret	To 100	Not set	Not set

**Notes:** This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 6 hour working day for a 5 day working week. The STEL (Short time exposure Limit) is an exposure value that may be equaled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.



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### SECTION 4: FIRST AID MEASURES

<b>General Information:</b>	Contact a doctor or poisons Information Centre ( <b>Phone New Zealand 0800 764 766</b> ) This is a 24 hour number. Have this MSDS with you when you make the phone call.
<b>Eyes:</b>	Quickly and gently brush particles from eyes. Immediately flush the contaminated eye(s) with luke-warm water for 20 minutes or until the product is removed whilst holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if the exposed person is wearing contact lenses.
<b>Inhalation:</b>	If irritation occurs, contact the poisons information centre, or call a doctor. Remove source of contamination. Remove victim to fresh air. IF breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably under a doctor's advice. In severe cases, symptoms of pulmonary oedema can be displayed up to 48 hours after exposure.
<b>Skin:</b>	Quickly and gently brush away excess solids. Wash gently and thoroughly with warm water (using non-abrasive soap) for 10-20 minutes or until the product is removed. Under running water, remove contaminated clothing, shoes and leather goods (eg watchbands and belts) and completely decontaminate them before reuse or discard them. If irritation persists, repeat flushing and seek medical attention.
<b>Swallowing:</b>	If swallowed DO-NOT induce vomiting. Wash mouth with water and contact the Poisons Information Centre or call a doctor.

### SECTION 5: FIRE FIGHTING MEASURES

<b>Fire and Explosion Hazards:</b>	Moderate risk of an explosion if commercial quantities are involved in a fire. Fire fighters should take care and appropriate precautions. The presence of this product in a fire is likely to intensify the fire due to its oxidising properties. Decomposition products may be toxic if inhaled. Take appropriate protective measures.
<b>Extinguishing Media:</b>	Coarse water spray is the preferred medium for large fires. Try to contain spills. Minimise spillage from entering drains or water courses.
<b>Fire Fighting:</b>	If a significant quantity of this product is involved in a fire, call the fire brigade. There is a danger of a violent reaction or explosion if significant quantities of the product are involved in a fire. Recommended PPE is liquid-tight chemical protective clothing and breathing apparatus.
<b>Flash Point:</b>	Does not burn.
<b>Upper Flammability Limit:</b>	Does not burn.
<b>Lower Flammability Limit:</b>	Does not burn.
<b>Autoignition Temperature:</b>	Not applicable - Does not burn.
<b>Flammability Class:</b>	Does not burn.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>Accidental Release:</b>	In the event of a major spill, prevent spillage from entering drains and water courses.
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<b>Skin:</b>	Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Wear full protecting clothing including eye/face protection. All skin areas should be covered. Suitable materials for protective clothing include rubber, PVC.
<b>Eyes:</b>	Protective goggles.
<b>Inhalation:</b>	If there is a significant chance that dusts are likely to build up in clean up area, use a suitable dust mask.
<b>Directions:</b>	Stop leak if safe to do so, and contain spill. <b>DO-NOT</b> use sawdust or other combustible material to contain spill. Sweep up with a shovel or collect recoverable product into labelled containers for recycling or salvage and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing run-off from entering drains. If significant quantity of material enters drains, advise emergency services. Contaminated area may be neutralised by washing with weak or diluted reducing agent. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

### SECTION 7: HANDLING AND STORAGE

<b>Handling:</b>	Keep exposure to the product to a minimum. Minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures and ensure they are followed. To minimise risks, the measures detailed below under storage should be followed during handling. Avoid contact or contamination of product with incompatible materials listed in Section 10 below.
<b>Storage:</b>	This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in a cool, well ventilated area. Check containers periodically for corrosion and leaks. Keep containers closed to minimise contamination especially from combustible or reducing materials. Ensure product does not come into contact with substances listed under "incompatibilities" in Section 10 below. If more than 50 kg is kept you are probably required to license the premises or notify the Dangerous Goods Authority. If in doubt, contact the Dangerous Goods Authority in order to clarify your obligations. Check packaging for further storage instructions on the label. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.



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### SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

- SWA TWA:** The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 6 hour working day for a 5 day working week.
- STEL:** The STEL (Short time exposure Limit) is an exposure value that may be equaled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day.

The following Australian Standards will provide general advice regarding safety clothing and equipment:

- Respiratory Equipment:** AS/NZS 1715.  
**Protective Gloves:** AS 2161.  
**Occupational PPE:** AS/NS 4501 set 2008.  
**Industrial Eye Protection:** AS 1336 and AS/NZS 1337  
**Occupational Protective Footwear:** AS/NZS 2210.

**SWA Exposure Limits:** TWA ( $\text{mg}/\text{m}^3$ ) STEL ( $\text{mg}/\text{m}^3$ ).

Exposure Limits have not been established by SWA for any of the significant ingredients in this product.

No special equipment is usually needed when occasionally handling small quantities.

The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems:

- Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.
- Eye Protection:** Protective glasses or goggles should be worn when this product is being used. Failure to protect eyes may cause them harm. Emergency eye facilities are recommended close to where product is being used.
- Skin Protection:** Prevent skin contact by wearing impervious gloves, clothes and preferably apron. Make sure all skin areas are covered.
- Protective Material Types:** Rubber and PVC.
- Respirator:** If there is chance that dusts are likely to build up in the area where the product is being used, use a suitable dust mask.
- Eye Baths and Showers:** Eyebaths or eyewash station and safety deluge showers should be provided near to where this product is being used.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- Physical Description & Colour:** White granules or tablets.
- Odour:** Sharp Chlorine-bleach odour.
- Boiling Point:** Not applicable.
- Freezing/Melting Point:** Decomposes about 225°C before melting.
- Volatiles:** Nil at 100°.
- Vapour Pressure:** Negligible at normal ambient temperatures.
- Vapour Density:** No data.
- Specific Gravity:** 1.0%.
- Water Solubility:** 1.2% at 25°C.
- pH:** 2.7-2.9 (1% in water).
- Volatility:** Negligible at normal ambient temperatures.
- Odour Threshold:** No data.
- Evaporation Rate:** No data.
- Coeff Oil/Water Distribution:** No data.
- Autoignition temp:** Not applicable – does not burn.



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### SECTION 10: STABILITY AND REACTIVITY

<b>Reactivity:</b>	Unlikely to react or decompose under normal storage conditions. Contact supplier for advice on shelf life properties. Check the Safety Directions on the product label for further details of incompatibilities.
<b>Conditions to avoid:</b>	Keep in a cool place preferably below 30°C. Keep containers tightly closed. Keep containers dry. Keep containers and surrounding areas well ventilated. Keep isolated from combustible materials.
<b>Incompatibilities:</b>	Reducing agents, zinc, tin, aluminium and their alloys, combustible materials.
<b>Fire Decomposition:</b>	Combustion forms Carbon Dioxide, and if incomplete, Carbon Monoxide and smoke. Water is also formed. May form Nitrogen and its compounds, and under some circumstances, Oxides of Nitrogen. Occasionally produces Hydrogen Cyanide gas in reducing atmospheres. May form Oxides of Sulphur (Sulphur Dioxide is a respiratory hazard) and other sulphur compounds. Most will have a foul odour. May form Hydrogen Chloride gas, and other compounds of Chlorine. Copper compounds. Carbon Monoxide poisoning produces headaches, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgement and unconsciousness, followed by coma and death.
<b>Polymerisation:</b>	This product will not undergo polymerisation reactions.

### SECTION 11: TOXICOLOGICAL INFORMATION

<b>Local Effects:</b>	
<b>Target Organs:</b>	There is no data indicating any particular target organs.

### SECTION 12: ECOLOGICAL INFORMATION

<b>Toxicity:</b>	Very Toxic to aquatic organisms. May cause long term adverse effects to the aquatic environment. Salts, acids and bases are typically diluted and neutralised when released to the environment in small quantities. <b>HOWEVER</b> , until diluted or neutralised it will kill all aquatic organisms it contacts due to extreme toxicity to them.
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### SECTION 13: DISPOSAL CONSIDERATIONS

<b>Disposal:</b>	May be recycled if unused or free from contamination. If contaminated it may be possible to separate the contamination. When neither of these options is suitable, consider landfill, but it is recommended that the product be neutralised in a controlled manner prior to disposal.
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### SECTION 14: TRANSPORT INFORMATION

<b>ADG Code:</b>	2468 Trichloroisocyanuric Acid Dry.
<b>Hazchem Code:</b>	1WE.
<b>Special provisions:</b>	None allocated.
<b>Limited Quantities:</b>	ADG 7 specifies a limited quantity value of 1kg for this product.



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<b>Dangerous Goods Class:</b>	Class 5.1: Oxidising Agent.
<b>Packing Group:</b>	II.
<b>Packaging Method:</b>	P002; IBC08.
<b>Isolation: DO NOT's:</b>	Class 5.1 Oxidising Agents shall not be loaded in the same vehicle or packed in the same freight container with: Class 1 Explosives. Class 2.1 Flammable Gasses. Class 2.3 Toxic Gasses. Class 3 Flammable Liquids. Class 4.1 Flammable Solids. Class 4.2 Spontaneously Combustible Substances. Class 4.3 Dangerous when wet. Class 5.2 Organic Peroxides. Class 6 Toxic Substances, where toxic substance is a fire risk substance. Class 7 Radioactive Substances. Class 8 Corrosive Substances. Class 9 Misc Dangerous Goods, where the substance is a fire risk substance. Fire risk substances other than Dangerous Goods.
<b>Isolation May Load With:</b>	Class 2.2 Non Flammable Non-Toxic Gases. Class 6 Toxic Substances (except where the substances are fire risky.) Class 9 Misc Dangerous Goods, except where the goods are fire risk substances. Foodstuffs and foodstuff empties.

### SECTION 15: REGULATORY INFORMATION

**AIC:** All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredients: Chlorinating compounds, Copper compounds, are mentioned in the SUSMP.

**New Zealand:** This substance is classified as a hazardous substance in accordance with the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

**Approval Number:** Water Treatment Chemicals (Oxidising [5.1.1] Group Standard 2006 HSR002683.

### SECTION 16: OTHER INFORMATION

#### Disclaimer

The modifications to this Safety Data Sheet made by M J Nankivell HazTec Ltd have been restricted to adding New Zealand specific information only as required under the HSNO Act 1996 and associated regulations and no changes have been made to the technical content.

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