



**Company Details:**

**Waterwell Projects (PTY) LTD**

*Reg No. 2001/018862/07*

Waterwell Projects (PTY) LTD

Unit 4 Megazone Park

Hertford Junction R512

Lanseria 1748

Tel: 011 300 9917/8 or 073 077 0973

Fax: 086 605 9360

Poison Centre: +27 21 689 5227

## MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

#### a) Identification of the substance or preparation :

- 1.1 Trade / Commercial Name: Waterwell Ultra-Chlor (packed 2.5kg / 4kg / 5kg / 10kg / 25kg)
- 1.2 Chemical Name: Sodium dichloro-s-triazinetrione
- 1.3 Formula:  $C_3N_3O_3Cl_2$
- 1.4 Chemical Family: Sodium salt of inorganic salt
- 1.5 Synonyms: Dichlor, Sodium dichloroisocyanurate
- 1.6 Un No. 2465 Hazchem Code 2WE
- 1.7 CAS No. 2893-78-9

#### b) Information of Distributor :

Waterwell Projects (PTY) LTD  
Unit 4 Megazone Park  
Hertford Junction R512  
Lanseria 1748  
Tel: 011 300 9917/8 or 073 077 0973  
Fax: 086 605 9360

#### Alternate suppliers:

CJP Chemicals (Pty) Ltd	<b>or:</b>	Crossmill Chemicals CC
P. O. Box 1353		P O Box 1272
Cresta 2118		Lonehill 2062
32 Tiger Moth ave		34 Renico Crescent Lea Glen,
Aeroton 2190		Roodepoort, Gauteng 2195
Tel: 011 494 6700		Tel: 011 472 4986
Fax: 011 494-6701		Fax: 011 472 0730

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Dangerous ingredient	% w/w
Dichloroisocyanuric acid	min. 99%

### 3. HAZARDS IDENTIFICATION

**Health Effects:** Human systemic effects by ingestion include ulceration or bleeding of stomach. Other effects: gastrointestinal irritation, salivation, watering of eyes, shortness of breath, weakness, emaciation, lethargy, diarrhea, coma and (following very high dosage), death after 1-8 days, with autopsy showing irritation of stomach and gastrointestinal tract, liver dysfunction and lung congestion.

**Acute Effects:** Swallowed: Data indicates the product should be considered as harmful by ingestion

Eye: Data indicates that this product should be classified as a severe eye irritant.

Skin: Data indicates that the product presents medium hazard via skin contact when moisture is present.

Inhalation: Inhalation may cause irritation of the nose and throat and cause coughing and chest discomfort.

Primary route of exposure is inhalation and skin and eye contact.

#### 4. FIRST AID MEASURES

<b>Swallowed</b>	Do not induce vomiting. Give a glass of water. Contact the doctor or Poisons Information Centre if symptoms of poisoning develop.
<b>Eye</b>	Hold eyes open and wash continuously for 15 minutes with running water. Ease irritation under eyelids by occasionally lifting eyelids. Do not attempt to remove contact lenses unless trained. Transport to hospital or doctor immediately.
<b>Skin</b>	If this product comes in contact with the skin, wash skin with soap and water for 15 minutes. Remove contaminated clothing and footwear. Ensure contaminated clothing is thoroughly washed before using again. Transport to hospital or doctor immediately.
<b>Inhalation</b>	If fumes or combustion products are inhaled, remove to fresh air. Lay victim down and keep warm and rested. If breathing is shallow, or has stopped, ensure clear airway and apply resuscitation. Transport to hospital or doctor immediately.

Eye wash stations or baths and deluge showers should be available where product is being used.

Advice to doctor: Treat symptomatically. Note the nature of this product.

#### 5. FIRE FIGHTING MEASURES

There is no explosion hazard for this material under normal circumstances.

Flashpoint: Does not burn

Extinguishing Media: Use media suited to burning materials.

Special Fire Fighting Procedures: Firefighters should wear full protective clothing and self contained breathing apparatus when fighting fires involving this product.

Unusual Fire and Explosion Hazards: None

Stability: Stable

Polymerisation: Will not polymerise.

Decomposition Products: Oxides of nitrogen, chlorine, sodium

Materials to avoid: Water, organic/combustible materials, ammonium salts, nitrogenous materials, alkalis, urea and amines

#### 6. ACCIDENTAL RELEASE MEASURES

##### ***Spills and disposals:***

In event of a major spill, clear area of personnel. Alert fire brigade and advise nature & location of spill. Wear full protective clothing and self contained breathing apparatus, especially in confined spaces. Prevent spillage from entering drains or water courses. Stop leak if safe to do so, and contain spill. Absorb onto vermiculite, sand, sawdust or other absorbent material. Sweep up and shovel or collect recoverable product into labeled containers for recycling or salvage.

Recycle containers wherever possible. After spills, wash area, preventing runoff from entering drains. If material enters drains, advise emergency services. This material may be suitable for landfill. Dispose of only in compliance with local, state and federal regulations. Launder all contaminated clothing before re-use.

## 7. HANDLING AND STORAGE

UN number is 2465 and Hazchem code is 2WE. It is classed as "Class 5.1 (Oxidising Agent)" Being a scheduled poison, the product must be stored, maintained and used in accord with relevant state poisons act.

Not to be transported with Classes 1 (Explosives), 2.1 (Flammable Gases), 2.3 (Poisonous Gases), 3 (Flammable Liquids), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.2 (Organic Peroxides), 6 (Toxic Substances) (Nb. when substance is capable of being ignited and burning), 7 (Radioactive Substances), 8 (Corrosives), and 9 (Miscellaneous Dangerous Substances) (Nb. when substance is capable of being ignited and burning). Observe all regulations associated with this classification when carrying by road or rail. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames, and make sure the material does not come into contact with water or acids.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Risk Phrases are: R8, R22, R31. Combination Risk Phrases are: R36/37. Contact with combustible material may cause fire. Harmful if swallowed. Contact with acids liberates toxic gas. Irritating to eyes and respiratory system.

### ***Exposure Standards:***

There is a blanket limit of 10mg/m<sup>3</sup> for dusts or mists when limits have not otherwise been established. The nature of this product makes it unlikely that this level will be approached in normal use. See ingredients section on page 1 of this data sheet.

### ***Engineering Controls:***

Ventilation must be adequate to ensure that the working environment is below the TWA value. Otherwise, use respiratory protection. Some materials should only be used when respiratory protection is being worn. For information on respiratory protection, consult AS1716. See below for further information.

### ***Personal Protection:***

Respiratory Protection: A face mask or respirator should be used when this material is being used. For help in selecting suitable equipment consult AS/NZS 1715.

Protective Gloves: Rubber or PVC gloves are advised. For help in selecting suitable gloves consult AS 2161.

Eye Protection: Full face mask, safety glasses or goggles should be worn. Consult AS 1336 and AS/NZS 1337 for information about eye protection.

Clothing: Clean overalls should to be worn, preferably with an apron. All skin areas should be covered. Consult AS 2919 for advice on Industrial Clothing.

Safety Boots: Wearing safety boots would be advisory. Consult AS/NZS 2210 for advice on Occupational Protective Footwear.

Flammability Limits: Does not burn

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odour: White, slightly hygroscopic granules or crystalline powder. Chlorine odour.

Melting/softening point: 230-250°C

Boiling point and vapour pressure: Not applicable.

Volatile materials: Nil

Flashpoint: Does not burn.

Specific gravity: 0.9

Solubility in water: 30% w/w at 25°C

Corrosiveness: Not corrosive.

pH value: 5.8 to 7.0 (1% solution)

## 10. STABILITY AND REACTIVITY

### CONDITIONS CONTRIBUTING TO INSTABILITY:

Presence of incompatible materials.

Product is considered stable.

Hazardous polymerisation will not occur.

### STORAGE INCOMPATIBILITY

Contact with acids produces toxic fumes

Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous

Avoid storage of dichloroisocyanurates with ammonia, urea or similar nitrogen containing compounds, inorganic reducing compounds, calcium hypochlorite, alkalis and water.

Corrosive to most metals in the presence of moisture.

Many compounds containing more than one N-halogen bond are unstable and exhibit explosive properties.

Avoid strong bases.

Avoid reaction with oxidising agents

## 11. TOXICOLOGICAL INFORMATION

### IRRITATION DATA:

500 mg/24 hour(s) skin-rabbit mild; 500 mg skin-rabbit severe; 10 mg/24 hour(s) rinsed eyes-rabbit moderate; 100 mg/24 hour(s) eyes-rabbit mild

### TOXICITY DATA:

>50 mg/l inhalation-unreported LC50 (Refco); 2000 mg/kg skin-rabbit LD50 (Refco); 735 mg/kg oral-rat LD50 (Refco); 400 mg/kg oral-guinea pig LD50 (Refco); 3570 mg/kg oral-human LDLo; 1420 mg/kg oral-rat LD50; 2500 mg/kg oral-rabbit LDLo; 3160 mg/kg skin-rabbit LDLo; 1670 mg/kg oral-mammal LD50

### LOCAL EFFECTS:

Irritant: inhalation, skin, eye

### ACUTE TOXICITY LEVEL:

Moderately Toxic: dermal absorption, ingestion

**REPRODUCTIVE EFFECTS DATA:** Not Available.

### 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:**

Ingestion 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.

## 12. ECOLOGICAL INFORMATION

**FISH TOXICITY:** This material is believed to be highly toxic to aquatic life. 0.28-2.4 mg/L 96 hour(s) LC50 Bluegill Sunfish; 0.22-0.65 mg/L 96 hour(s) LC50 Rainbow Trout

**INVERTEBRATE TOXICITY:** 0.11-0.28 mg/L 48 hour(s) LC50 Water flea

**FATE AND TRANSPORT:**

**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 occurs in minutes. None of the hydrolysis products are bioaccumulative or persistent. Photoreactivity of free available chlorine is 30 minutes at 30 C (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:** 1,916 mg/kg oral-Mallard duck LD50; 1,766 mg/kg oral-N.

Bobwhite LD50; >10,000 ppm inhalation-Mallard duck LC50; 7253 - >10,000 ppm inhalation-N. Bobwhite LC50

## 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. Damp material should be neutralized to a non-oxidizing state. Handling and disposal of damp material. See product label for container disposal information. May be subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D003.

#### 14. TRANSPORT INFORMATION

<b>U.S. DOT 49 CFR 172.101:</b>	
<b>PROPER SHIPPING NAME:</b>	Dichloroisocyanuric acid salts
<b>ID NUMBER:</b>	UN2465
<b>HAZARD CLASS OR DIVISION:</b>	5.1
<b>PACKING GROUP:</b>	II
<b>LABELING REQUIREMENTS:</b>	5.1

#### 15. REGULATORY INFORMATION

U.S. REGULATIONS:  
CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not regulated.  
SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30): Not regulated.  
SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):  
ACUTE: Yes  
CHRONIC: No  
FIRE: Yes  
REACTIVE: Yes  
SUDDEN RELEASE: No  
SARA TITLE III SECTION 313 (40 CFR 372.65): Not regulated.

#### 16. ANY OTHER RELEVANT INFORMATION;

*The information herein is given in good faith and to the best of our knowledge at the current date. The accomplishment of the instructions herein does not exempt the user from following the legal and administrative regulations relative to product, environmental safety and hygiene, which are user's own responsibility. In case of mixture with other substances, ensure that other risks are not generated.*

*Date of Revision: 21 August 2014 (general revision)*