

Stabilised Trichlor Chlorine Tablets 200gm, 150gm, 20gm POPS Group (The POPS Group Pty Ltd as Trustee for The Pool Shops Trust. Klorman Industries Pty Ltd) Chemwatch: 5278-22

Chemwatch Hazard Alert Code: 2

Issue Date: 26/10/2022 Print Date: 27/10/2022 L.GHS.AUS.EN.E

Version No: 5.1 Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier	
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Product name	Stabilised Trichlor Chlorine Tablets
Chemical Name	Not Applicable
Synonyms	Not Available
Proper shipping name	TRICHLOROISOCYANURIC ACID, DRY
Chemical formula	Not Applicable
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses Sanitising water in swimming pools. Use according to manufacturer's directions.

Details of the manufacturer or supplier of the safety data sheet

Registered company name	POPS Group (The POPS Group Pty Ltd as Trustee for The Pool Shops Trust. Klorman Industries Pty Ltd)
Address	10-12 Cairns Street Loganholme QLD 4129 Australia
Telephone	+61 7 3209 7884
Fax	+61 7 3209 8635
Website	http://www.poolpro.com.au/ https://klorman-industries.com/
Email	office@poolpro.com.au

Emergency telephone number

Association / Organisation	ІХОМ
Emergency telephone numbers	+61 3 9663 2130 (International) (24 hours)
Other emergency telephone numbers	+61 1800 033 111

SECTION 2 Hazards identification

classification of the substance or mixture	
Poisons Schedule	S6
Classification ^[1]	Oxidizing Solids Category 2, Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2A, Acute Toxicity (Inhalation) Category 4, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Hazardous to the Aquatic Environment Long-Term Hazard Category 1, Hazardous to the Ozone Layer Category 1
Legend:	1. Classified by Chernwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

Label elements

Hazard pictogram(s)	

Signal word Danger

Hazard statement(s)

AUH031	Contact with acid liberates toxic gas.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

H410	Very toxic to aquatic life with long lasting effects.
H420	Harms public health and the environment by destroying ozone in the upper atmosphere.

Precautionary statement(s) Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	
Use only outdoors or in a well-ventilated area.	
Keep away from clothing and other combustible materials.	
Avoid breathing dust/fumes.	
Wash all exposed external body areas thoroughly after handling.	
Do not eat, drink or smoke when using this product.	
Avoid release to the environment.	
Wear protective gloves, protective clothing, eye protection and face protection.	

Precautionary statement(s) Response

P370+P378	In case of fire: Use water jets to extinguish.
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.
P391	Collect spillage.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider if you feel unwell.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P330	Rinse mouth.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

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

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
P502	Refer to manufacturer or supplier for information on recovery or recycling.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
87-90-1	>60	N'.N'.N'- trichloroisocyanuric acid
Legend:	 Classified by Chernwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available 	

SECTION 4 First aid measures

	If this product comes in contact with the eyes: • Wash out immediately with fresh running water.
Eye Contact	Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
	Seek medical attention without delay; if pain persists or recurs seek medical attention.
	Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
	If skin contact occurs:
Skin Contact	Immediately remove all contaminated clothing, including footwear.
	Flush skin and hair with running water (and soap if available).
	Seek medical attention in event of irritation.
	If fumes or combustion products are inhaled remove from contaminated area.
	Lay patient down. Keep warm and rested.
	Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
	Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
Inhalation	Transport to hospital, or doctor, without delay.
	Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema.
	Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs).
	As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested.
	Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be

	considered. This must definitely be left to a doctor or person authorised by him/her. (ICSC13719)
Ingestion	 IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. For advice, contact a Poisons Information Centre or a doctor. Urgent hospital treatment is likely to be needed. In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided. Further action will be the responsibility of the medical specialist. If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS. Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise: INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. NOTE: Wear a protective glove when inducing vomiting by mechanical means.

Indication of any immediate medical attention and special treatment needed

Depending on the degree of exposure, periodic medical examination is indicated. The symptoms of lung oedema often do not manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation is therefore essential. Immediate administration of an appropriate spray, by a doctor or a person authorised by him/her should be considered.

(ICSC24419/24421 5a

SECTION 5 Firefighting measures

Extinguishing media

FOR SMALL FIRE:

▶ USE FLOODING QUANTITIES OF WATER.

• DO NOT use dry chemical, CO2, foam or halogenated-type extinguishers.

FOR LARGE FIRE

Flood fire area with water from a protected position

Special hazards arising from the substrate or mixture

Fire Incompatibility	 Avoid storage with reducing agents. Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous

Advice for firefighters

Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water courses. Fight fire from a safe distance, with adequate cover. Extinguishers should be used only by trained personnel. Use water delivered as a fine spray to control fire and cool adjacent area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. If fire gets out of control withdraw personnel and warn against entry. Equipment should be thoroughly decontaminated after use. Solid which exhibits difficult combustion or is difficult to ignite.
Fire/Explosion Hazard	 Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited; once initiated larger particles up to 1400 microns diameter will contribute to the propagation of an explosion. A dust explosion may release large quantities of gaseous products; this in turn creates a subsequent pressure rise of explosive force capable of damaging plant and buildings and injuring people. Usually the initial or primary explosion takes place in a confined space such as plant or machinery, and can be of sufficient force to damage or rupture the plant. If the shock wave from the primary explosion enters the surrounding area, it will disturb any settled dust layers, forming a second dust cloud, and often initiate a much larger secondary explosion. All large scale explosions have resulted from chain reactions of this type. Dry dust can also be charged electrostatically by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport. Build-up of electrostatic charge may be prevented by bonding and grounding. Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting. All movable parts coming in contact with this material should have a speed of less than 1-metre/sec. Combustion products include: carbon dioxide (CO2) hydrogen chloride phosgene nitrogen oxides (NOX) other pyrolysis products typical of burning organic material.
HAZCHEM	1W

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Minor Spills	 Environmental hazard - contain spillage. Clean up all spills immediately. No smoking, naked lights, ignition sources. Avoid all contact with any organic matter including fuel, solvents, sawdust, paper or cloth and other incompatible materials, as ignition may result. Avoid breathing dust or vapours and all contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Control personal contact with thy sand, earth, inert material or vermiculite. DO NOT use sawdust as fire may result. Scoop up solid residues and seal in labelled drums for disposal. Neutralise/decontaminate area.
Major Spills	 Environmental hazard - contain spillage. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water courses. No smoking, flames or ignition sources. Increase ventilation. Contain spill with sand, earth or other clean, inert materials. NEVER USE organic absorbents such as sawdust, paper or cloth. Use spark-free and explosion-proof equipment. Collect any recoverable product into labelled containers for possible recycling. Avoid contamination with organic matter to prevent subsequent fire and explosion. DO NOT mix fresh with recovered material. Collect residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. Decontaminate equipment and launder all protective clothing before storage and re-use. If contamination of drains or waterways occurs advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling

Precautions for safe handling	
Safe handling	 For oxidisers, including peroxides. Avoid personal contact and inhalation of dust, mist or vapours. Provide adequate ventilation. Newsy wear protective equipment and wash off any spillage from clothing. Keep cond, dry and away from light, heat, flammables or combustbles. Keep cond, dry and away from incompatible materials. Void physical damage to containers. OD NOT repack or return unsued portions to original containers. Withdraw only sufficient amounts for immediate use. Jes only minimum quantity required. Avoid using solutions of peroxides in volatile solvents. Solvent evaporation should be controlled to avoid dangerous concentration of the peroxide. Do NOT repack or return unsued portions to original containers. Withdraw only sufficient amounts for immediate use. Do NOT use glass containers with screw cap lids or glass stoppers. Store peroxides at the lowest possible temperature, consistent with their solubility and freezing point. Othord to use glass containers with screw cap lids or glass stoppers. The hazards and consequences of fires and explosions during synthesis and use of oxidisers freezes or precipitates. Peroxides, in particular, in this form are extremely shock and heat-sensitive. Refrigerated storage of peroxides must ONLY be in explosion-proof units. The hazards and consequences of fires and explosions during synthesis and use of oxidisers is widely recognised; spontaneous or induced decomposition may cultinate in a variety of ways, ranging from moderate gassing to spontaneous ginthure will fire auril heats to decomposition. The most effective means for conversing portice controlled and the area should be evacuated. Interstein a strely as high as 1% in the reaction mixture of polymerisation or other free-radical reactions, and wild good agitation. Original percukides stre to hyper sensitive to containination (especially heavy

	 layers 1/32 in.(0.8 mm) thick can be sufficient to warrant immediate cleaning of the area. Do not use air hoses for cleaning. Minimise dry sweeping to avoid generation of dust clouds. Vacuum dust-accumulating surfaces and remove to a chemical disposal area. Vacuums with explosion-proof motors should be used. Control sources of static electricity. Dusts or their packages may accumulate static charges, and static discharge can be a source of ignition Solids handling systems must be designed in accordance with applicable standards (e.g. NFPA including 654 and 77) and other national guidance. Do not empty directly into flammable solvents or in the presence of flammable vapors. The operator, the packaging container and all equipment must be grounded with electrical bonding and grounding systems. Plastic bags and plastics cannot be grounded, and antistatic bags do not completely protect against development of static charges. Empty containers may contain residual dust which has the potential to accumulate following settling. Such dusts may explode in the presence of an appropriate ignition source. Do NOT cut, drill, grind or weld such containers. In addition ensure such activity is not performed near full, partially empty or empty containers without appropriate workplace safety authorisation or permit.
Other information	Consider storage under inert gas. Store in original containers. Keep containers securely sealed as supplied. Store in a cool, well ventilated area. Keep dry. Store under cover and away from sunlight. Store away from flammable or combustible materials, debris and waste. Contact may cause fire or violent reaction. Store away from incompatible materials and foodstuff containers. DO NOT stack on wooden floors or pallets. Protect containers from physical damage. Check regularly for leaks. Check regularly for leaks. Store anufacturer's storage and handling recommendations contained within this SDS. In addition, Goods of Class 5.1, packing group II should be: stored in piles so that the height of the pile does not exceed 1 metre the maximum quantity in a pile or building does not exceed 1000 tonnes unless the area is provided with automatic fire extinguishers or 3 meters if not. the minimum distance between piles is not less than 1 metre. Material is hygroscopic, i.e. absorbs moisture from the air. Keep containers well sealed in storage.
Suitable container	cluding any incompatibilities 1kg, 2kg, 10kg, 25kg • Glass container is suitable for laboratory quantities • DO NOT repack. Use containers supplied by manufacturer only. For low viscosity materials • Drums and jerricans must be of the non-removable head type. • Where a can is to be used as an inner package, the can must have a screwed enclosure. For materials with a viscosity of at least 2680 cSt. (23 deg. C) and solids: • Removable head packaging and • cans with friction closures may be used. - Where combination packages are used, and the inner packages are of glass, there must be sufficient inert cushioning material in contact with inner and outer packages *. - In addition, where inner packagings are glass and contain liquids of packing group I and II there must be sufficient inert absorbent to absorb any spillage *. - *
Storage incompatibility	 Trichloroisocyanuric acid: is a powerful oxidiser and reacts violently with reducing agents reacts with acrolein, antimony trisulfide, antimony tritelluride, arsenic pentasulfide, calcium hypochlorite and other bleaching agents, 1,1-dichloro-1-nitroethane, 1,3-dichloropropene, diethylamine, mineral oils and other combustible substance, s-trioxane is incompatible with m-bis(trichloromethyl)benzene reacts with nitrogen-containing compounds such as ammonia, amines, urea, forming the unstable explosive nitrogen trichloride may ignite combustible materials on contact NOTE: If mixed with a small amount of water, the concentrated solution (with pH around 2) may explode, owning to the evolution of nitrogen trichloride. It is thought that hydrolysis leads to the formation of hypochlorous acid and dichloro-s-triazinetrione, and the protonated acid then attacks the C=N bonds in the triazine ring lading to the formation of chloramine and nitrogen trichloride. The dichloro compound is stable to acid in the absence of hypochlorous acid

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2		TEEL-3
N',N',N'- trichloroisocyanuric acid	1.2 mg/m3	13 mg/m3		80 mg/m3
Ingredient	Original IDLH		Revised IDLH	
N',N',N'- trichloroisocyanuric acid	Not Available		Not Available	

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
N',N',N'- trichloroisocyanuric acid	E	≤ 0.01 mg/m³
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.	

MATERIAL DATA

Exposed individuals are NOT reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class C, D or E.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm

Classification into classes follows:

ClassOSF Description

- A 550 Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV-TWA for example) is being reached, even when distracted by working activities
- B 26-550 As "A" for 50-90% of persons being distracted
- C 1-26 As "A" for less than 50% of persons being distracted
- D 0.18-1 10-50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached
- E ~~ <0.18 $\,$ As "D" for less than 10% of persons aware of being tested $\,$
- for chlorine:

Odour Threshold Value: 0.08 ppm (detection) - olfactory fatigue may develop

NOTE: Detector tubes for chlorine, measuring in excess of 0.2 ppm, are commercially available. Long-term measurements (8 hrs) may be conducted to detect concentrations exceeding 0.13 ppm.

Smell is not a good indicator of severity of exposure in the range 0.5 to 2 ppm. In this range subjects found exposure unpleasant with itching and burning of the throat reported and occasionally an urge to cough. Significant differences in the responses of males and females were also recorded with females often reporting headache and drowsiness. Exposure at 1 ppm chlorine for 8 hours produced significant changes in pulmonary function and increased subjective irritation. Similar 8 hour exposures at 0.5 ppm produced no significant pulmonary function changes and less severe subjective irritation. Exposures at 2 ppm chlorine produced no significant changes in pulmonary form the nose and increased mucous in the hypopharynx. Exposure at 0.5 ppm produced increased mucous secretion from the nose and increased mucous in the hypopharynx. Exposure at or below the TLV-TWA and STEL is thought to protect the worker against annoying symptoms in nose, throat and conjunctiva and declines in pulmonary function.

Odour Safety Factor(OSF)

OSF=1.6 (CHLORINE)

Exposure controls

	Engineering controls are used to remove a hazard or place a be highly effective in protecting workers and will typically be i The basic types of engineering controls are: Process controls which involve changing the way a job activit Enclosure and/or isolation of emission source which keeps a "adds" and "removes" air in the work environment. Ventilation ventilation system must match the particular process and che Employers may need to use multiple types of controls to prev Local exhaust ventilation usually required. If risk of overexpore protection. Supplied-air type respirator may be required in sp An approved self contained breathing apparatus (SCBA) may Provide adequate ventilation in warehouse or closed storage velocities which, in turn, determine the "capture velocities" of	ndependent of worker interactions to provide this high level ty or process is done to reduce the risk. selected hazard "physically" away from the worker and ven a can remove or dilute an air contaminant if designed proper smical or contaminant in use. vent employee overexposure. sure exists, wear approved respirator. Correct fit is essentia ecial circumstances. Correct fit is essential to ensure adequ y be required in some situations. area. Air contaminants generated in the workplace possess	of protection. tilation that strategically dy. The design of a I to obtain adequate late protection.		
	Type of Contaminant:		Air Speed:		
	solvent, vapours, degreasing etc., evaporating from tank (in	0.25-0.5 m/s (50-100 f/min.)			
Appropriate engineering	aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)		0.5-1 m/s (100-200 f/min.)		
controls	direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion) 1-2.				
	grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).		2.5-10 m/s (500-2000 f/min.)		
	Within each range the appropriate value depends on:				
	Lower end of the range	Upper end of the range			
	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents			
	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity			
	3: Intermittent, low production.	3: High production, heavy use			
	4: Large hood or large air mass in motion	4: Small hood-local control only			
	Simple theory shows that air velocity falls rapidly with distance with the square of distance from the extraction point (in simpl accordingly, after reference to distance from the contaminatir 1-2 m/s (200-400 f/min) for extraction of solvents generated i producing performance deficits within the extraction apparatu more when extraction systems are installed or used.	le cases). Therefore the air speed at the extraction point sho ng source. The air velocity at the extraction fan, for example n a tank 2 meters distant from the extraction point. Other mo	buld be adjusted, , should be a minimum of echanical considerations,		

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Stabilised Trichlor Tablets

Personal protection	
Eye and face protection	 Chemical goggles. Full face shield may be required for supplementary but never for primary protection of eyes. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]
Skin protection	See Hand protection below
Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber DO NOT wear cotton or cotton-backed gloves. DO NOT wear leather gloves. Promptly hose all spills off leather shoes or boots or ensure that such footwear is protected with PVC over-shoes.
Body protection	See Other protection below
Other protection	 Overalls. PVC Apron. PVC protective suit may be required if exposure severe. Eyewash unit. Ensure there is ready access to a safety shower. Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity. For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets). Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot an shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds. Electrical resistance must range between 0 to 500,000 ohms. Conductive shoes should be stored in lockers close to the room in which they are worn. Personnel who have been issued conductive footwear should not wear them from their place of work to their homes and return.

Respiratory protection

Type AB-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	AB P1 Air-line*	-	AB PAPR-P1 -
up to 50 x ES	Air-line**	AB P2	AB PAPR-P2
up to 100 x ES	-	AB P3	-
		Air-line*	-
100+ x ES	-	Air-line**	AB PAPR-P3

* - Negative pressure demand ** - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

· Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.

• The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).

Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.

Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
 Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under

appropriate government standards such as NIOSH (US) or CEN (EU) · Use approved positive flow mask if significant quantities of dust becomes airborne.

Try to avoid creating dust conditions.

Where significant concentrations of the material are likely to enter the breathing zone, a Class P3 respirator may be required.

Class P3 particulate filters are used for protection against highly toxic or highly irritant particulates.

Filtration rate: Filters at least 99.95% of airborne particles

Suitable for:

· Relatively small particles generated by mechanical processes eg. grinding, cutting, sanding, drilling, sawing.

· Sub-micron thermally generated particles e.g. welding fumes, fertilizer and bushfire smoke.

· Biologically active airborne particles under specified infection control applications e.g. viruses, bacteria, COVID-19, SARS

· Highly toxic particles e.g. Organophosphate Insecticides, Radionuclides, Asbestos

Note: P3 Rating can only be achieved when used with a Full Face Respirator or Powered Air-Purifying Respirator (PAPR). If used with any other respirator, it will only provide filtration protection up to a P2 rating.

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SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

 Appearance
 White to off white tablets with possible blue spots with chlorine odour; miscible with water. White

 Physical state
 Solid

 Relative density (Water = 1)
 Not Available

Odour	Characteristic	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	5-7 (1 tablet in 10mL)	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	225	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Applicable	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Applicable	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Applicable
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Miscible	pH as a solution (Not Available%)	Not Available
Vapour density (Air = 1)	Not Applicable	VOC g/L	Not Applicable

SECTION 10 Stability and reactivity

See section 7
 Unstable in the presence of incompatible materials. Product is considered stable under normal handling conditions. Prolonged exposure to heat. Hazardous polymerisation will not occur. Extremely high temperatures.
See section 7
See section 7
See section 7
See section 5

SECTION 11 Toxicological information

Information on toxicological effects

Chronic	Limited evidence suggests that repeated or long-term occubiochemical systems.	upational exposure may produce cumulative health effects involving organs or	
		isease of the airways involving difficult breathing and related systemic problems.	
Eye	Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.		
Skin Contact	 The material produces moderate skin irritation; evidence exists, or practical experience predicts, that the material either produces moderate inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant, but moderate, inflammation when applied to the healthy intact skin of animals (for up to four hours), such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the sping of the epidermis. Open cuts, abraded or irritated skin should not be exposed to this material Solution of material in moisture on the skin, or perspiration, may markedly increase skin corrosion and accelerate tissue destruction Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. 		
Ingestion	Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.		
Inhaled	Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system, in a substantial number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system. Inhalation of dusts, generated by the material during the course of normal handling, may produce severe damage to the health of the individual. Relatively small amounts absorbed from the lungs may prove fatal. Inhalation of dusts, generated by the material, during the course of normal handling, may be harmful.		

	ΤΟΧΙCΙΤΥ	IRRITATION	
	Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye (rabbit): 3125 mg - moderate	
	Inhalation(Rat) LC50: >0.09<0.29 mg/l4h ^[1]	Eye (rabbit): 50 ug/24h SEVERE	
	Oral (Rat) LD50; 406 mg/kg ^[2]	Eye: adverse effect observed (irritating) ^[1]	
N',N',N'- trichloroisocyanuric acid		Eye: no adverse effect observed (not irritating) ^[1]	
		Skin (rabbit): 500 mg - SEVERE	
		Skin (rabbit): 500 mg/24h-moderate	
		Skin: adverse effect observed (corrosive) ^[1]	
		Skin: no adverse effect observed (not irritating) ^[1]	
Legend:	: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances		
N',N',N'- TRICHLOROISOCYANURIC ACID	result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The		

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	×	STOT - Single Exposure	×
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×

Legend: X – Data either not available or does not fill the criteria for classification - Data available to make classification

SECTION 12 Ecological information

	Endpoint	Test Duration (hr)	Species	Value	Source
Stabilised Trichlor Tablets	Not Available	Not Available	Not Available	Not Available	Not Available
N',N',N'- trichloroisocyanuric acid	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1008h	Fish	<0.1	7
	NOEC(ECx)	96h	Fish	0.056mg/l	2
	EC50	72h	Algae or other aquatic plants	>100mg/l	2
	EC50	48h	Crustacea	0.16-0.18mg/L	4
	LC50	96h	Fish	0.06-0.11mg/L	4
	EC50	96h	Algae or other aquatic plants	655mg/l	2

- Bioconcentration Data 8. Vendor Data
On the basis of the available evidence concerning properties and predicted or observed environmental fate and behavior, the material may present a danger to the structure and/ or

functioning of the stratospheric ozone layer. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
N',N',N'- trichloroisocyanuric acid	HIGH	HIGH

Continued...

Stabilised Trichlor Tablets

Ingredient	Bioaccumulation
N',N',N'- trichloroisocyanuric acid	LOW (BCF = 0.5)
Mobility in soil	
Ingredient	Mobility
N',N',N'- trichloroisocyanuric acid	LOW (KOC = 48.36)

SECTION 13 Disposal considerations

Waste treatment methods	
Product / Packaging disposal	 Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Where possible retain label warnings and SDS and observe all notices pertaining to the product. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. For small quantities of oxidising agent: Cautiously acidify a 3% solution to pH 2 with sulfuric acid. Gradually add a 50% excess of sodium bisulfite solution with stirring. Add a further 10% sodium bisulfite. If no further reaction occurs (as indicated by a rise in temperature) cautiously add more acid.

SECTION 14 Transport information

Labels Required	
Marine Pollutant	
HAZCHEM	1W

Land transport (ADG)

UN number	2468		
UN proper shipping name	TRICHLOROISOCYANURIC ACID, DRY		
Transport hazard class(es)	Class 5.1 Subrisk Not App	blicable	
Packing group	I		
Environmental hazard	Environmentally hazardous		
Special precautions for user	Special provisions	Not Applicable	

Air transport (ICAO-IATA / DGR)

	-,		
UN number	2468		
UN proper shipping name	Trichloroisocyanuric acid, dry		
Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subrisk ERG Code	5.1 Not Applicable 5L	
Packing group	11		
Environmental hazard	Environmentally hazardo	us	
Special provisions Special provisions Cargo Only Packing In		Not Applicable structions 562	
	Cargo Only Maximum	Qty / Pack 25 kg	

	Passenger and Cargo Packing Instructions	558
	Passenger and Cargo Maximum Qty / Pack	5 kg
	Passenger and Cargo Limited Quantity Packing Instructions	Y544
	Passenger and Cargo Limited Maximum Qty / Pack	2.5 kg

Sea transport (IMDG-Code / GGVSee)

UN number	2468		
UN proper shipping name	TRICHLOROISOCYANURIC ACID, DRY		
Transport hazard class(es)	IMDG Class 5.1 IMDG Subrisk Not Applicable		
Packing group	11		
Environmental hazard	Marine Pollutant		
Special precautions for user	EMS Number Special provisions Limited Quantities	F-A, S-Q Not Applicable 1 kg	

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
N',N',N'- trichloroisocyanuric acid	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
N',N',N'- trichloroisocyanuric acid	Not Available

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

N',N',N'- trichloroisocyanuric acid is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -Schedule 5 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -Schedule 6 Australian Inventory of Industrial Chemicals (AIIC)

National Inventory Status

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (N',N',N'- trichloroisocyanuric acid)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	Yes	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	Yes	
Vietnam - NCI	Yes	
Russia - FBEPH	Yes	
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.	

SECTION 16 Other information

Revision Date	26/10/2022
Initial Date	27/10/2017

Version	Date of Update	Sections Updated
4.1	07/03/2020	Classification change due to full database hazard calculation/update.
5.1	26/10/2022	Acute Health (eye), Acute Health (inhaled), Advice to Doctor, Appearance, Chronic Health, Classification, Environmental, Exposure Standard, Fire Fighter (fire/explosion hazard), First Aid (inhaled), Personal Protection (Respirator), Personal Protection (hands/feet), Spills (major), Spills (minor), Storage (storage incompatibility), Storage (storage requirement), Storage (suitable container), Use

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average PC-STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit. IDLH: Immediately Dangerous to Life or Health Concentrations ES: Exposure Standard OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value **BCF: BioConcentration Factors** BEI: Biological Exposure Index AIIC: Australian Inventory of Industrial Chemicals DSL: Domestic Substances List NDSL: Non-Domestic Substances List IECSC: Inventory of Existing Chemical Substance in China EINECS: European INventory of Existing Commercial chemical Substances ELINCS: European List of Notified Chemical Substances NLP: No-Longer Polymers ENCS: Existing and New Chemical Substances Inventory KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals PICCS: Philippine Inventory of Chemicals and Chemical Substances TSCA: Toxic Substances Control Act TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas NCI: National Chemical Inventory FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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