

Clark Rubber

Chemwatch: 5688-15 Version No: 2.1

Safety Data Sheet according to Work Health and Safety Regulations (Hazardous Chemicals) 2023 and ADG requirements

Chemwatch Hazard Alert Code: 2 Issue Date: 01/07/2024

Print Date: 31/01/2025 S.GHS.AUS.EN.E

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

Product Identifier

Product name	006 FILTRITE STABILISED TRICHLOR GRANULES	
Chemical Name	lot 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	Bleach or sanitising chemical.
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Details of the manufacturer or supplier of the safety data sheet

Registered company name	Clark Rubber	
Address	National Support Office, 1/12 Elizabeth Street, Hawthorn VIC 3122 Australia	
Telephone	+61 3 8727 9914	
Fax	+61 3 9729 3266	
Website	https://www.clarkrubber.com.au	
Email	reception@clarkrubber.com.au	

Emergency telephone number

Association / Organisation	CHEMWATCH EMERGENCY RESPONSE (24/7)	
Emergency telephone number(s)	+61 1800 951 288	
Other emergency telephone number(s)	+61 3 9573 3188	

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 Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272 Annex VI			



Signal word Danger

Hazard statement(s)

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.
AUH031	Contact with acid liberates toxic gas.

Precautionary statement(s) Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	
P271	Use only outdoors or in a well-ventilated area.	
P220	Keep away from clothing and other combustible materials.	
P261	Avoid breathing dust/fumes.	
P264	Wash all exposed external body areas thoroughly after handling.	
P270	Do not eat, drink or smoke when using this product.	
P273	Avoid release to the environment.	
P280	Wear protective gloves, protective clothing, eye protection and face protection.	

Precautionary statement(s) Response

In case of fire: Use water jets to extinguish.	
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
If eye irritation persists: Get medical advice/attention.	
Collect spillage.	
IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider if you feel unwell.	
IF ON SKIN: Wash with plenty of water.	
IF INHALED: Remove person to fresh air and keep comfortable for breathing.	
Rinse mouth.	
If skin irritation occurs: Get medical advice/attention.	
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:	1. Classified by Chemwatch; 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:
	 Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally
Eye Contact	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.
	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.
	Seek medical attention in even of mation. 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.
	Transport to hospital, or doctor, without delay.
Inhalation	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)
	For advice, contact a Poisons Information Centre or a doctor at once.
	Urgent hospital treatment is likely to be needed.
	If swallowed do NOT induce vomiting.
Ingestion	If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and provide an arrivation
	prevent aspiration. • Observe the patient carefully.
	 Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
	 Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
	 Transport to hospital or doctor without delay.

Indication of any immediate medical attention and special treatment needed

Excellent warning properties force rapid escape of personnel from chlorine vapour thus most inhalations are mild to moderate. If escape is not possible, exposure to high concentrations for a very short time can result in dyspnea, haemophysis and cyanosis with later complications being tracheobroncho-pneumonitis and pulmonary oedema. Oxygen, intermittent positive pressure breathing apparatus and aerosolysed bronchodilators are of therapeutic value where chlorine inhalation has been light to moderate. Severe inhalation should result in hospitalisation and treatment for a respiratory emergency. Any chlorine inhalation in an individual with compromised pulmonary function (COPD) should be regarded as a severe inhalation and a respiratory emergency.

Any chlorine inhalation in an individual with compromised pulmonary function (COPD) should be regarded as a severe inhalation and a respiratory emergency. [CCINFO, Dow 1988]

Effects from exposure to chlorine gas include pulmonary oedema which may be delayed. Observation in hospital for 48 hours is recommended Diagnosed asthmatics and those people suffering from certain types of chronic bronchitis should receive medical approval before being employed in occupations involving chlorine exposure.

If burn is present, treat as any thermal burn, after decontamination.

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

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

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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
dvice 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.
Fire/Explosion Hazard	 Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and <i>i</i> or dust explosions. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions). 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 ginited - particles exceeding this timit will generating up ont form fimmable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion. In the same way as gases and vapours, dusts in the form of a cloud are only ignitable over a range of concentrations; in principle, the concepts of lower explosive limit (LEL) and upper explosible Concentration, MEC). When processed with flammable liquid/vapors/mists ignitable (hybrid) mixtures may be formed with combustible dusts. Ignitable mixtures will increase the rate of explosion pressure rise and the Minimum Typositolic limit (UEL) are applicable to dust clouds but only the vapour/dust mixture will be lower than the individual LELs for the vapors/mists or dusts. A dust explosion may release of large quantities of gaseous products; this in turn creates a subsequent pressure rise of explosion foresease place acoustice and and inviring people. Usually the initial or primary explosion takes place in a confined
HAZCHEM	1W

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

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Methods and material for containment and cleaning up

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. Contain and absorb spill with dry 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

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Safe handling	For oxidisers, including peroxides.
	· Avoid personal contact and inhalation of dust, mist or vapours.
	· Provide adequate ventilation.
	· Always wear protective equipment and wash off any spillage from clothing.
	· Keep material away from light, heat, flammables or combustibles.
	· Keep cool, dry and away from incompatible materials.
	· Avoid physical damage to containers.
	• DO NOT repack or return unused portions to original containers. Withdraw only sufficient amounts for immediate use.
	· Use 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 allow oxidisers to contact iron or compounds of iron, cobalt, or copper, metal oxide salts, acids or bases.
	Do NOT use metal spatulas to handle oxidisers
	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.
	• CAUTION: Do NOT store liquids or solutions of peroxides at a temperature below that at which the oxidiser 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 culminate in a variety of ways, ranging from moderate gassing to spontaneous
	ignition or explosion. The heat released from spontaneous decomposition of an energy-rich compound causes a rise in the
	surrounding temperature; the temperature will rise until thermal balance is established or until the material heats to
	decomposition,
	• The most effective means for minimising the consequences of an accident is to limit quantities to a practical minimum. Even
	gram-scale explosions can be serious. Once ignited the burning of peroxides cannot be controlled and the area should be
	evacuated.
	· Unless there is compelling reason to do otherwise, peroxide concentration should be limited to 10% (or less with vigorous
	reactants). Peroxide concentration is rarely as high as 1% in the reaction mixture of polymerisation or other free-radical
	reactions,
	Oxidisers should be added slowly and cautiously to the reaction medium. This should be completed prior to heating and with
	good agitation.
	· Addition oxidisers to the hot monomer is extremely dangerous. A violent reaction (e.g., fire or explosion) can result from
	inadvertent mixing of promoters (frequently used with peroxides in polymerisation systems) with full-strength oxidisers
	· Organic peroxides are very sensitive to contamination (especially heavy-metal compounds, metal oxide salts, alkaline materials
	including amines, strong acids, and many varieties of dust and dirt). This can initiate rapid, uncontrolled decomposition of
	peroxides and possible generation of intense heat, fire or explosion The consequences of accidental contamination from
	returning withdrawn material to the storage container can be disastrous.
	· When handling NEVER smoke, eat or drink.

	 Always wash hands with soap and water after handling. Use only good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions) Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame. Establish good housekeeping practices. Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds. Use continuous suction at points of dust generation to capture and minimise the accumulation of dusts. Particular attention should be given to overhead and hidden horizontal surfaces to minimise the probability of a "secondary" explosion. According to NFPA Standard 654, dust 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.
Other information	 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. Observe manufacturer'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 the maximum distance between piles is not less than 2 metres where the room is provided with automatic fire extinguishers or 3 meters if not. the minimum distance to walls is not less than 1 metre. Material is hygroscopic, i.e. absorbs moisture from the air. Keep containers well sealed in storage.

Conditions for safe storage, including any incompatibilities

Suitable container	 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 *. * unless the outer packaging is a close fitting moulded plastic box and the substances are not incompatible with the plastic.
Storage incompatibility	strong acids strong alkalis

SECTION 8 Exposure controls / personal protection

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Not Available

Ingredient	Original IDLH	Revised IDLH
N',N',N'- trichloroisocyanuric acid	Not Available	Not Available

Exposure controls Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. An approved self contained breathing apparatus (SCBA) may be required in some situations. Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant. Type of Contaminant: Air Speed: 0.25-0.5 m/s (50solvent, vapours, degreasing etc., evaporating from tank (in still air). 100 f/min.) Appropriate engineering aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, 0.5-1 m/s (100controls 200 f/min.) welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation) direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas 1-2.5 m/s (200discharge (active generation into zone of rapid air motion) 500 f/min.) grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity 2 5-10 m/s (500-2000 f/min.) into zone of very high rapid air motion). 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 away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used Individual protection measures, such as personal protective equipment 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 Eye and face protection 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

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material

can not be calculated in advance and has therefore to be checked prior to the application.

	The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: I requency and duration of contact, glove thickness and destinty Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. Compared to PI 374, AS/NZS 2161.10.1 or national equivalent) is recommended. Compared to PI 374, AS/NZS 2161.10.1 or national equivalent) is recommended. Commanded gloves should be replaced. Commaniated gloves with a thickness typically greater than 0.35 mm, are recommended. Commaniated glove should be replaced. Commaniated glove should be replaced. Commaniated glove should be thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permention efficiency of the glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permention efficiency of the glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permention efficiency of the glove mith a thickness typically greater than 0.35 mm, are recommended. Contain efficiency of the glove will be dependent on the exact composition of the glove model. Therefore
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)

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Required minimum protection factor	Maximum gas/vapour concentration present in air p.p.m. (by volume)	Half-face Respirator	Full-Face Respirator
up to 10	1000	AB-AUS / Class1 P2	-
up to 50	1000	-	AB-AUS / Class 1 P2
up to 50	5000	Airline *	-
up to 100	5000	-	AB-2 P2
up to 100	10000	-	AB-3 P2
100+			Airline**

* - Continuous Flow ** - Continuous-flow or positive pressure demand

A(AII 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)

 \cdot 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 solid with chlorine like odour; soluble in water.

Physical state	Manufactured	Relative density (Water = 1)	2.07
Odour	Not Available	Partition coefficient n- octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable
pH (as supplied)	Not Available	Decomposition temperature (°C)	225
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Applicable
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Available	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 Available
Vapour pressure (kPa)	Not Applicable	Gas group	Not Available
Solubility in water	Partly miscible	pH as a solution (1%)	2.8
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available
Heat of Combustion (kJ/g)	Not Available	Ignition Distance (cm)	Not Available
Flame Height (cm)	Not Available	Flame Duration (s)	Not Available
Enclosed Space Ignition Time Equivalent (s/m3)	Not Available	Enclosed Space Ignition Deflagration Density (g/m3)	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7	
Chemical stability	 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. 	

Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

a) Acute Toxicity	There is sufficient evidence to classify this material as acutely toxic.	
b) Skin Irritation/Corrosion	There is sufficient evidence to classify this material as skin corrosive or irritating.	
c) Serious Eye Damage/Irritation	There is sufficient evidence to classify this material as eye damaging or irritating	
d) Respiratory or Skin sensitisation	Based on available data, the classification criteria are not met.	
e) Mutagenicity	Based on available data, the classification criteria are not met.	
f) Carcinogenicity	Based on available data, the classification criteria are not met.	
g) Reproductivity	Based on available data, the classification criteria are not met.	
h) STOT - Single Exposure	There is sufficient evidence to classify this material as toxic to specific organs through single exposure	
i) STOT - Repeated Exposure	Based on available data, the classification criteria are not met.	
j) Aspiration Hazard	Based on available data, the classification criteria are not met.	
inhaled	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled. If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures. Inhalation of dusts, generated by the material, during the course of normal handling, may be harmful.	
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.	
Skin Contact	The material may cause moderate inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions 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.	
Eye	If applied to the eyes, this material causes severe eye damage.	
Chronic	Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems. Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis, caused by particles less than 0.5 micron penetrating and remaining in the lung. Reduced breathing capacity may result from chronic low level exposure to chlorine gas. Chronic poisoning may result in cough, severe chest pains, sore throat and blood in the phlegm. Moderate to severe exposures over 3 years produced decreased lung capacity in a number of workers. Delayed effects can include shortness of breath, violent headaches, lung swelling and pneumonia. Chloralkali workers exposed over many years showed fatigue, and a modest increase in anxiety and dizziness. There may be an increase in white blood cell and decrease in red blood cell count. Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue.	

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TRICHLOR GRANULES

N',N',N'trichloroisocyanuric acid

TOXICITY	IRRITATION
Not Available	Not Available
TOXICITY	IRRITATION
Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye (Rodent - rabbit): 0.1gm - Severe
Inhalation (Rat) LC50: >0.09<0.29 mg/l4h ^[1]	Eye (Rodent - rabbit): 0.1gm - Severe
Oral (Rat) LD50: 406 mg/kg ^[2]	Eye: adverse effect observed (irritating) ^[1]
	Eye: no adverse effect observed (not irritating) ^[1]
	Skin (Rodent - rabbit): 0.5gm - Mild
	Skin (Rodent - rabbit): 500mg/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 - A Unless otherwise specified data extracted from RTECS - Regist	•	

N',N',N'- TRICHLOROISOCYANURIC ACID	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non- allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production. 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 on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.				
Acute Toxicity	*	Carcinogenicity	×		
Skin Irritation/Corrosion	×	Reproductivity	×		
Serious Eye Damage/Irritation	✓ STOT - Single Exposure				
Respiratory or Skin sensitisation	× STOT - Repeated Exposure				
Sensitisation					

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

SECTION 12 Ecological information

Toxicity

	Endpoint	Test Duration (hr)	Species	Value	Source
006 FILTRITE STABILISED TRICHLOR GRANULES	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1008h	Fish	<0.1	7
N',N',N'- trichloroisocyanuric acid	EC50	72h	Algae or other aquatic plants	>100mg/l	2
	EC50	96h	Algae or other aquatic plants	655mg/l	2
	EC50	48h	Crustacea	0.16- 0.18mg/L	4
	NOEC(ECx)	96h	Fish	0.056mg/l	2
	LC50	96h	Fish	0.06- 0.11mg/L	4
Legend:	4. US EPA, Eco	• •	CHA Registered Substances - Ecotoxicologica 5. ECETOC Aquatic Hazard Assessment Dat	•	

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. DO NOT discharge into sewer or waterways.

Persistence and degradability

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

Bioaccumulative potential

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Continued...

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

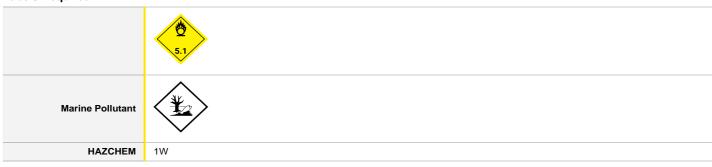
SECTION 13 Disposal considerations

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.
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SECTION 14 Transport information

Labels Required



Land transport (ADG)

14.1. UN number or ID number	2468			
14.2. UN proper shipping name	TRICHLOROISOCYAI	TRICHLOROISOCYANURIC ACID, DRY		
14.3. Transport hazard class(es)	Class Subsidiary Hazard	5.1 Not Applicable		
14.4. Packing group	II			
14.5. Environmental hazard	Environmentally hazardous			
14.6. Special precautions for user	Special provisions Limited quantity	Not Applicable 1 kg		

Air transport (ICAO-IATA / DGR)

14.1. UN number	2468		
14.2. UN proper shipping name	Trichloroisocyanuric acid, dry		
14.3. Transport hazard class(es)	ICAO/IATA Class 5.1		

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	ICAO / IATA Subsidiary Hazard	Not Applicable		
	ERG Code	5L		
14.4. Packing group	II			
14.5. Environmental hazard	Environmentally hazardous			
	Special provisions	Not Applicable		
	Cargo Only Packing Instructions	562		
	Cargo Only Maximum Qty / Pack	25 kg		
14.6. Special precautions for user	Passenger and Cargo Packing Ir	558		
	Passenger and Cargo Maximum	5 kg		
	Passenger and Cargo Limited Qu	uantity Packing Instructions	Y544	
	Passenger and Cargo Limited Maximum Qty / Pack		2.5 kg	

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	2468		
14.2. UN proper shipping name	TRICHLOROISOCYANURIC ACID, DRY		
14.3. Transport hazard class(es)	IMDG Class5.1IMDG Subsidiary HazardNot Applicable		
14.4. Packing group	II		
14.5 Environmental hazard	Marine Pollutant		
14.6. Special precautions for user	EMS Number Special provisions Limited Quantities	F-A , S-Q Not Applicable 1 kg	

14.7. Maritime transport in bulk according to IMO instruments

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

Not Applicable

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

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

14.7.3. Transport in bulk in accordance with the IGC 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)

Additional Regulatory Information

Not Applicable

National Inventory Status

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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	All chemical substances in this product have been designated as TSCA Inventory 'Active'
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	01/07/2024
Initial Date	01/07/2024

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
- DNEL: Derived No-Effect Level
- PNEC: Predicted no-effect concentration
- MARPOL: International Convention for the Prevention of Pollution from Ships
- IMSBC: International Maritime Solid Bulk Cargoes Code
- IGC: International Gas Carrier Code
- IBC: International Bulk Chemical Code
- 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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