SUPER ACTIVE CHLOR TABLETS

MATERIAL SAFETY DATA SHEET (MSDS)

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

1.1. Product identifier

Product name	: SUPER ACTIVE CHLOR TABLETS
Product code	: NXSC05
Other names	: Sodium dichloroisocyanurate; Dichloroisocyanuric acid, sodium salt; Sodium dichlorocyanurate; Sodium dichloro-s-triazinetrione
Product type	: Solid
Chemical family	: Chlorinated isocyanurate (sodium salt)

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

1.2.1. Disinfection of drinking water and water storage tanks; general water treatment; pool and spa water; household dry bleaches, dishwashing compounds, scouring powders and detergent sanitisers; replacement for calcium hypochlorite.

1.3. Details of the supplier of the safety data sheet

ZYAX CHEM PVT LTD
3rd Floor, Kamer Building,
38 Cawasji Patel Street, Fort,
Mumbai - 400001, India.
Contact No: +91 8779240420
info@zyax.in - www.zyax.in

1.4. Emergency telephone number

Emergency number : +91 22 2757 3899

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

Oxidizing solids	Category 2 (H272)

Health hazards

Acute oral toxicity	Category 4 (H302)
Serious Eye Damage/Eye Irritation	Category 2 (H319)
Specific target organ toxicity - (single exposure)	Category 3 (H335)

Environmental hazards

Acute aquatic toxicity	Category 1 (H400)
Chronic aquatic toxicity	Category 1 (H410)

Full text of Hazard Statements: see section 16

2.2. Label elements



Signal Word Danger

Hazard Statements	H272 - May intensify fire; oxidizer H302 - Harmful if swallowed H319 - Causes serious eye irritation H335 - May cause respiratory irritation H410 - Very toxic to aquatic life with long lasting effects EUH031 - Contact with acids liberates toxic gas
Precautionary Statements	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking P220 - Keep away from clothing and other combustible materials P403 + P233 - Store in a well-ventilated place. Keep container tightly closed P261 - Avoid breathing dust/fume/gas/mist/vapors/spray P273 - Avoid release to the environment P280 - Wear protective gloves/protective clothing/eye protection/face protection P301 + P317 - IF SWALLOWED: Get medical help P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

2.3. Other hazards

Contact with combustible material may cause fire. Contact with acids liberates toxic gas (chlorine). Irritating to eyes and respiratory system. Slightly hygroscopic: keep dry. Classed as a Dangerous Good (Class 5.1, Oxidising Agent).

SECTION 3: Composition/information On Ingredients

Name	CAS No.	EC No.	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sodium dichloroisocyanurate	2893-78-9	220-767-7	95	Ox. Sol. 2 (H272) Acute Tox. 4 (H302) Eye Irrit. 2 (H319) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) [EUH031]
Inert materials	-	-	-	-

Molecular formula : C3Cl2N3NaO3
Molecular weight : 219.95

This is a commercial product, and the exact ratio of components may vary. Trace quantities of impurities are also likely. Full text of H-statements: see section 16

SECTION 4: First Aid Measures

4.1. Description of first aid measures

Ingestion	If swallowed, do NOT induce vomiting. Give a glass of water. Contact a doctor or the Poisons Information Centre if symptoms of poisoning develop.
Eye Contact	Hold eyes open and wash continuously for 15 minutes with running water. Ensure irrigation under eyelids by occasionally lifting eyelids. Do not attempt to remove contact lenses unless trained. Transport to hospital or doctor immediately.
Skin Contact	Wash skin with soap and water for 15 minutes. Remove contaminated clothing and footwear. Ensure contaminated clothing is thoroughly washed before using again. Transport to hospital or doctor immediately.
Inhalation	If fumes or combustion products are inhaled, remove to fresh air. Lay victim down and keep warm and rested. If breathing is shallow, or has stopped, ensure clear airway and apply resuscitation. Transport to hospital or doctor immediately.
First aid facilities	Eye wash stations or baths and deluge showers should be available where product is being used.

4.2. Most important symptoms and effects, both acute and delayed

Primary routes of exposure are inhalation, skin and eye contact. Ingestion may cause ulceration or bleeding of the stomach, gastrointestinal irritation, salivation, watering of eyes, shortness of breath, weakness, emaciation, lethargy and diarrhoea; very high doses may cause coma and death after 1-8 days, with irritation of stomach and gastrointestinal tract, liver dysfunction and lung congestion. Inhalation may cause irritation of the nose and throat, coughing and chest discomfort.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically. Note the nature of this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use media suited to burning materials.
Flammability : Does not burn. Flashpoint: does not burn.

5.2. Special hazards arising from the substance or mixture

Oxidizer: contact with combustible material may cause fire. There is no explosion hazard from this material under normal circumstances. Unusual fire and explosion hazards: none.

Hazardous Combustion Products

Oxides of nitrogen, chlorine and sodium.

5.3. Advice for firefighters

Firefighters should wear full protective clothing and self contained breathing apparatus when fighting fires involving this product. In case of fire and/or explosion, do not breathe fumes.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

In the event of a major spill, clear area of personnel. Alert fire brigade and advise of nature and location of spill. Wear full protective clothing and self contained breathing apparatus, especially in confined spaces.

6.2. Environmental precautions

Prevent spillage from entering drains or water courses. If material enters drains, advise emergency services.

6.3. Methods and material for containment and cleaning up

Stop leak if safe to do so, and contain spill. Absorb onto vermiculite, sand or other inert absorbent material. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage. After spills, wash area, preventing runoff from entering drains. Launder all contaminated clothing before re-use.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

Section 7: Handling And Storage

7.1. Precautions for safe handling

Keep container dry. Avoid contact with eyes; in case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre. Keep away from combustible materials. In case of fire and/or explosion, do not breathe fumes.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Launder contaminated clothing before re-use. Wash hands after handling.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers closed in order to minimise contamination. Keep from extreme heat and open flames, and make sure the material does not come into contact with water or acids. Store away from organic/combustible materials, ammonium salts, nitrogenous materials, alkalis, urea and amines. Being a scheduled poison, the product must be stored, maintained and used in accordance with the relevant poisons regulations.

7.3. Specific end use(s)

Water disinfection and treatment. Please read all labels carefully before using product.

SECTION 8: Exposure Controls / Personal Protection

8.1. Control parameters

Exposure limits

Chemical entity	CAS No.	Proportion	TWA mg/m3	STEL mg/m3
Sodium dichloroisocyanurate	2893-78-9	95%	Not set	Not set
Inert materials	-	-	-	-

A time weighted average (TWA) concentration for an 8 hour day, and 5 day week has not been established for any of the ingredients in this product. There is a blanket limit of 10 mg/m3 for dusts or mists when limits have not otherwise been established. The nature of this product makes it unlikely that this level will be approached in normal use.

8.2. Exposure controls

Engineering Measures

Ventilation must be adequate to ensure that the working environment is below the TWA value. Otherwise, use respiratory protection. Some materials should only be used when respiratory protection is being worn. Eye wash stations or baths and deluge showers should be available where product is being used.

Personal protective equipment

Respiratory Protection	A face mask or respirator should be used when this material is being used (refer AS/NZS 1715 and AS1716).
Hand Protection	Rubber or PVC gloves are advised (refer AS 2161).
Eye Protection	Full face mask, safety glasses or goggles should be worn (refer AS 1336 and AS/NZS 1337).
Skin and body protection	Clean overalls should be worn, preferably with an apron. All skin areas should be covered (refer AS2919).
Safety Boots	Wearing safety boots is advisable (refer AS/NZS 2210).
Environmental exposure controls	Prevent product from entering drains or water courses.

SECTION 9: Physical And Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State	Solid (tablet)
Appearance	White, slightly hygroscopic
Odour	Chlorine odour
Melting Point/Softening Point	230 - 250 °C
Boiling Point/Range	Not applicable
Vapor Pressure	Not applicable
Flash Point	Does not burn
Flammability (solid, gas)	Does not burn
Volatile materials	Nil
pH	5.8 to 7.0 (1% solution)
Water Solubility	30% w/w at 25 °C
Specific Gravity	0.9
Corrosiveness	Not corrosive

9.2. Other information

Molecular Formula	C3Cl2N3NaO3
Molecular Weight	219.95
Oxidizing Properties	Oxidizer
Evaporation Rate	Not applicable - Solid

SECTION 10: Stability and reactivity

10.1. Reactivity

Oxidizer: contact with combustible material may cause fire. Contact with acids liberates toxic gas.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous Polymerization : Will not polymerise.

10.4. Conditions to avoid

Extreme heat and open flames. Contact with water or acids.

10.5. Incompatible materials

Water, organic/combustible materials, ammonium salts, nitrogenous materials, alkalis, urea and amines.

10.6. Hazardous decomposition products

Oxides of nitrogen, chlorine and sodium.

SECTION 11: Toxicological Information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

(a) acute toxicity; Oral	Category 4. Harmful by ingestion.
(b) skin corrosion/irritation	Medium hazard via skin contact when moisture is present.
(c) serious eye damage/irritation	Category 2. Causes serious eye irritation. Data indicates that this product should be classified as a severe eye irritant.
(d) respiratory or skin sensitization	No data available
(e) germ cell mutagenicity	No data available
(f) carcinogenicity	The ingredients are not listed as carcinogenic in Worksafe's document "Exposure Standards for Atmospheric Contaminants in the Occupational Environment" (May 1995).
(g) reproductive toxicity	No data available
(h) STOT-single exposure	Category 3. Target organs: respiratory system. May cause irritation of the nose and throat, coughing and chest discomfort.
(i) STOT-repeated exposure	No data available
(j) aspiration hazard	Not applicable - Solid

Symptoms / effects, both acute and delayed

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

11.2. Information on other hazards

Endocrine Disrupting Properties	No data available

SECTION 12: Ecological Information

12.1. Toxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Prevent spillage from entering drains or water courses.

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

The product is water soluble (30% w/w at 25 °C) and may spread in water systems.

12.5. Results of PBT and vPvB assessment

No data available

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from Residues/Unused Products	Collect recoverable product into labelled containers for recycling or salvage. This material may be suitable for landfill. Dispose of only in compliance with local, state and federal regulations.
Contaminated Packaging	Recycle containers wherever possible.
Other Information	Do not allow runoff to enter drains. Launder all contaminated clothing before re-use.

SECTION 14: Transport Information

14.1. UN number	UN2465
14.2. UN proper shipping name	DICHLOROISOCYANURIC ACID SALTS
14.3. Transport hazard class(es)	5.1 (Oxidising Agent). No subsidiary risk.
14.4. Packing group	II
Hazchem Code / EPG	2WE / 5A1
14.5. Environmental hazards	Dangerous for the environment
14.6. Special precautions for user	Not to be transported with Classes 1 (Explosives), 2.1 (Flammable Gases), 2.3 (Poisonous Gases), 3 (Flammable Liquids), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.2 (Organic Peroxides), 7 (Radioactive Substances) and 8 (Corrosives); nor with Class 6 (Toxic Substances) or Class 9 (Miscellaneous Dangerous Substances) where the substance is capable of being ignited and burning. Observe all regulations associated with this classification when carrying by road or rail.

SECTION 15: Regulatory Information

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

This product is classed as a Dangerous Good. Consult the applicable Dangerous Goods and poisons regulations to clarify obligations regarding the storage of this product. EC No. (Sodium dichloroisocyanurate): 220-767-7.

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3

H272 - May intensify fire; oxidizer
H302 - Harmful if swallowed
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
EUH031 - Contact with acids liberates toxic gas

Disclaimer

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace, including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact ZYAX CHEM PVT LTD. The responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.