

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: MICROCIDE

1. Product and Company identification	
Product Name	Microcide
Product Description	Powder disinfectant based on organic chlorine compounds
Supplier	Hychem (Pty) Ltd
Physical address	11/13 Silverstone Crescent Kyalami Business Park Midrand
Postal Address	PO Box 5742; Rivonia; 2128
Contact Details	Emergency: 011-4661885

2. Composition/ Information on ingredients	
Chemical Nature	Soluble white Powder
Components contributing to the hazard	Sodium dichloroisocyanurate
Chemical or generic name of components	Sodium dichloroisocyanurate
Concentration range	Sodium dichloroisocyanurate 50% (High)
VHIGH >60%, HIGH 30-60%, MED 10-29%, LOW 1-9%, VLOW >1%	
Classification and hazard labelling	Xn- Harmful (if swallowed) Xi- Irritant (may cause irritation in contact with eyes and skin) N-Dangerous for the environment (toxic to fish)
Major hazard	Environmental hazard (when mishandled)
CAS	(Troclose Sodium) CAS 2893-78-9
UN number	2465
R-Phrases	R22, R31, R36, R37, R50, R53

3. Hazard identification (Summary of most important hazards)	
Hazard category/ classification	Class 9 – Miscellaneous dangerous substance solid (Toxic to fish)
Adverse human health affects	Harmful if swallowed, Irritating to eyes and respiratory system
Environmental effects	Contact with acid liberates toxic gas On contact with moisture, NaDCC readily decomposes to Chlorine, Hypochlorous Acid & Cyanuric Acid
Classification of the chemical product	At concentrations recommended for sanitising purposes, no significant effects occur

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4. First Aid Measures	
Action to be avoided	Do not induce vomiting
Inhalation	Remove patient to fresh air, if irritation persists seek medical attention
Skin contact	Remove and wash contaminated clothing Wash skin with well with water
Eye contact	Keep eyes open and flush with clean water for at least 15 minutes, if irritation persists seek medical attention
Ingestion	Wash out mouth with water and give 200-300ml of water/milk to drink. Seek medical attention

5. Fire fighting measures	
<i>Product is not flammable itself, but contact with combustible material may cause fire Combustible if dehydrated by drying. Decompose above 250°C with release of chlorine & other toxic fumes. A thermal decomposition can be extinguished by flooding with copious amounts of water.</i>	
Extinguishing media	Pressurised water or dry powder
Inappropriate distinguishing media	Do not use dry fire extinguisher that contains ammonium compounds
Specific hazards	Remove the product if it is safe to do so before using water to fight the fire. This will minimise the hazard from release of toxic fumes. It is often safer to let the burn itself out. If it is decided to use water, large quantities must be used, if insufficient water is used there may be an explosion hazard associated with hot damp material. NaDCC may generate nitrogen trichloride when left under damp conditions.
Special equipment for protection	Wear self contained breathing apparatus to prevent inhalation of fumes (if applicable) and goggles

6. Accidental release measures	
Personal precautions	Do not ingest; Breathe in dust; Avoid eye contact
Environmental precautions	Avoid spillage entering waterways – Toxic to fish
Methods for cleaning up recovery	Handle spillage carefully; do not return spilled material to original container. Any spillage should be cleaned up immediately to avoid contamination with foreign materials with which it may react (See section 10 on reactivity)
Neutralisation and disposal of spillage	If powder is dry and uncontaminated , place in dry clearly marked bag, container and use as originally intended If powder becomes damp , place in unclosed bag and dispose as per regulations

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7. Handling and storage	
Observe the usual precautionary measures for handling and storing chemicals	
Handling	Ensure container is properly closed and not leaking Keep away from fire, heat, flame and direct sunlight
Storage	Keep container tightly closed in a cool, dry, well ventilated, secure area. Avoid high humidity levels. Store away from incompatibles and combustibles. Check containers regularly for leakage and possible distension. Material must be stored in accordance with local rules and legislation

8. Exposure controls/ Personal protection	
<u>Control Parameters</u>	
Limit values	To be monitored at the work place
Biological standards	Refer to UN and R-Phrase numbers
Monitoring procedures	Keep container closed when not in use
Personal protective equipment	Refer to the S-Phrase data
Protective clothing	In abnormal conditions use an approved respirator and wear protective eyewear
Personal hygiene measures	Wash contaminated clothing before storage and re-use

9. Physical and chemical properties	
Form	Powder
Colour	White
Odour	Characteristic chlorine odour
PH Value	9-10 (1% Soln)
Melting Temperature °c	Decomposes below melting temp 230°C
Explosive Properties	Explosion risk of fire on contact with strong reducing agents, strong ammonia, urea.
Oxidising Properties	Yes
Vapour density	Not ascertained
Density	1.87g/ml
Solubility	Soluble in water
Viscosity at 20°C	Not applicable

10. Stability and reactivity	
Stability and possible hazardous reactions	
Conditions/ materials to avoid	Avoid light, heat, incompatible materials
Hazardous decomposition	Emits toxic fumes of chlorine.

11. Toxicological information	
LD 50test on animals available on certain raw materials in product	

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Toxicity	Information on NaDCC
Inhalation	Irritating to the nose, mouth, throat, lungs
Skin & eye contact	Can cause severe irritation or burns, characterized redness, swelling and scab formation. May cause impairment of vision and corneal damage
Chronic toxicity/ Carcinogenicity	According to IARC in Category 3

12. Ecological information	
Possible environmental effects	NaDCC is highly toxic to fish
Behaviour and fate	Soluble in water. Avoid large product spillage from entering waterways
Persistence/ Biodegradability	No data available

13. Disposal considerations	
Disposal of chemical product	Do not discharge into lakes, streams, ponds or public water unless in accordance with the permit of official regulations. Disposal: transfer to waste grounds, spread thinly and cover with a thin layer of earth; a smell of chlorine will be noted until the material has degraded
Disposal of contaminated packaging	If material is dry, incineration is recommended

14. Transport regulations	
UN number	UN2465
Packaging group	II
Classification	5.1 Oxidising Agent
Chemical contributing to this hazard	Sodium dichloroisocyanurate, anhydrous

15. Regulatory information	
National legislation	Refer to the below Risk and Safety phrase Data
Hazard and safety information	Take usual good care
EEC hazard classification Risk phrases	R22 – Harmful if swallowed
	R31 – Contact with acids liberates toxic gas
	R36/37 – Irritating to eyes and respiratory system
	R50 – Very toxic to aquatic organisms
	R53 – May cause long term adverse effects in the aquatic environment
EEC hazard classification Safety phrases	S7/8 – Keep container tightly closed and dry
	S13 – Keep away from food, drink and animal feeding stuff
	S26 – In case of contact with eyes, rinse immediately with plenty of water.

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	Seek medical advice
	S41 – In case of fire, do not breathe fumes

16. Additional information (e.g. special training or restrictions on the products use)

Refer to product data sheet

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.