

Infosafe No™ HYD03 Issue Date : May 2008 ISSUED by HYDROCHM CS: 1.4.22

Product Name **BIOSUB**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name BIOSUB

Company Name Hydro-Chem Pty Ltd

Address 27 Viking Court Cheltenham
VIC 3192

Telephone/Fax Number Tel: (03) 9553 1011
Fax: (03) 9553 1387

Recommended Use Biosub aids in the control of bacterial, fungal and algal slimes in open recirculating cooling water systems. Biosub is suitable for industrial or domestic evaporative coolers only. Biosub should be placed in the basin of the coolers. When the container floats, this indicates that the Biosub is depleted. Contact Hydro-Chem for advise on alternatives applications.

2. HAZARDS IDENTIFICATION

Hazard Classification Hazard Category:
T Toxic
Xi Irritant

Risk Phrase(s) R22 Harmful if swallowed.
R23 Toxic by inhalation.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R50 Very toxic to aquatic organisms.

Safety Phrase(s) S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell seek medical advice immediately

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Solid

Information on Composition All ingredient in this product are listed on the Australian Inventory of Chemical Substances (AICS).

Ingredients	Name	CAS	Proportion
	1-bromo-3-chloro-5,5-dimethylhydantoin	16079-88-2	60-100 %
	Inert Ingredients		TO 100%

4. FIRST AID MEASURES

Inhalation Remove victim to fresh air. If irritation persists, contact physician. Never give anything by mouth to and unconscious person.

Ingestion Feed gruel, cooked cereal or bread soaked in milk followed by olive oil. Immediately contact physician. Never give anything by mouth to an unconscious person.

Skin Wash with plenty of soap and water. Seek immediate medical advice.

Eye Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek immediate medical assistance.

5. FIRE FIGHTING MEASURES

Specific Hazards Hazardous decomposition products of heating and/or burning: Hydrogen chloride. Oxides of nitrogen
Hydrogen bromide
Bromide gas

Extinguish fire with the following:
Use carbon dioxide.
Use CO2, dry chemical or foam.
Keep containers cool with water spray.
DO NOT BREATHE FUMES

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Contain run-off.
Oxidizing material. Forms explosive mixtures with combustible, organic or other easily oxidizable materials.

Hazchem Code 3WE

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal If product from containers is released:
Contain - prevent contamination of drains and waterways. Sweep up or collect, but avoid generating dust. Use spark free implements. Re-collect in original container if possible. Normally suitable for disposal at an approved land waste site.

7. HANDLING AND STORAGE

Precautions for Safe Handling Do not open containers, avoid release of chemical.
Always wear gloves when handling this product refer to Section 8.
If chemical is released refer to Section 6.

Conditions for Safe Storage Store in a cool, dry, well ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards Engineering Controls No data supplied.
TLV not established
Use with adequate ventilation. Avoid generating and inhaling dusts.

Personal Protective Equipment Wearing of the following personal protective equipment is recommended. Safety glasses, goggles or faceshield as appropriate. Rubber gloves. Avoid inhaling the vapour, mist or dust.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Solid

Appearance White to off-white tablets.
Faint halogen odour.

Melting Point Not applicable - Decomposes

Boiling Point Not Allocated

Specific Gravity 1.8-2.0 (water = 1)

Vapour Pressure Negligible

Flash Point Not Allocated

Flammability Keep away from heat, sparks or naked flames.
OXIDIZING material. Forms explosive mixtures with combustible, organic or other easily combustible materials.

Flammable Limits - Lower Not Allocated

Other Information Solubility in water.....0.2% @ 25°C/77°F
Solubility in benzene.....2.5% @ 25°C/77°F

10. STABILITY AND REACTIVITY

Hazardous Reactions STRONG OXIDIZING AGENT !!! Mix only with water. Use clean dry utensils. Do not add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion. Contamination with moisture, organic matter, or other chemicals may start a chemical reaction with generation of heat, liberation hazardous gases and possible geration of fire and explosion. In case of contamination or decomposition, do not reseal container. If possible, isolate container in open air or well-ventilated area. Flood with large volumes of water, if necessary.
Hazardous Decomposition Products
Thermal decomposition products may yield the following:
-hydrogen bromide-bromide gas-hydrogen chloride
Hazardous polymerization
Product will not undergo polymerization.

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Incompatibility
 Avoid contact with the following:
 -bases-oxidizing agents-organic chemicals

11. TOXICOLOGICAL INFORMATION

Toxicology Information	Acute Data Oral LD50 - rat: 929 mg/kg Skin irritation - rabbit: severe irritation, may be corrosive.
	Mutagenicity Data Ames mutagenicity: Negative.
	Sensitivity Data Sensitization - human: Possible skin sensitization.
Inhalation	Inhalation of dust may result in respiratory irritation. May cause irritation to the throat and lungs.
Ingestion	May cause -shortness of breath - headache - nausea. Moderately toxic. May cause irritation to mouth, throat and stomach.
Skin	May cause damage to the mucous membranes. Contact with skin may result in irritation. Prolonged or repeated exposure may cause skin sensitization.
Eye	Can cause superficial burns after prolonged contact. Contact with MOIST skin will cause the following; -severe skin burns.
Chronic Effects	A severe eye irritant. Permanent eye damage, including loss of sight, may occur. No data supplied.

12. ECOLOGICAL INFORMATION

Environ. Protection This biocide is toxic to fish. DO NOT discharge into lakes, streams, ponds, public water; unless in accordance with NPDES permit. For guidance, contact your Regional Office of the EPA. DO NOT contaminate water by cleaning of container and equipment or disposal of wastes. Apply this biocide only as specified on this label.

Environmental Toxicity;
 Bobwhite quail, Dietary LC50: >5620ppm
 Bobwhite quail, Oral LD50: 1839mg/kg
 Mallard duck, Dietary LC50: >5620 ppm
 Rainbow trout (Salmo gairdneri), 96 hour LC50 Static: 0.4mg/l
 Bluegill sunfish (Lepomis macrochirus), 96 hour LC50 Static: 0.46mg/l
 Daphnia magna, 48 hour LC50: 0.75mg/l
 All results are based on a nominal concentration of active ingredient.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations Material should be disposed of in accordance with local, state and federal regulations.
 Small quantities can be dissolved in water and flushed to sewer with excess water.

Container Disposal Empty containers can be discarded as general waste.

14. TRANSPORT INFORMATION

U.N. Number	1479
Proper Shipping Name	OXIDIZING SOLID, N.O.S.
DG Class	5.1
Hazchem Code	3WE
Packaging Method	3.8.5.1
Packing Group	III
Storage and Transport EPG Number	Keep containers closed at all times. Store in a cool, dry place. Store away from sources of heat or ignition. 5B1

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IERG Number 31

15. REGULATORY INFORMATION

Poisons Schedule Not Scheduled

Packaging & Labelling As required by the ADG Code and the Standard for the Uniform Scheduling of Drugs and Poisons.

Hazard Category Toxic, Irritant, Dangerous for the environment

16. OTHER INFORMATION

Contact Person/Point Normal Working Hours - Ph: (03) 9553 1011 Fax: (03) 9553 1387
 Ask for the Facilities Manager, Sales Manager or Services Manager.
 After Hours - Ph : 1300 558 788

Further information/advice is available to those persons responsible for the design of safe work practices on their written request to HydroChem. This MSDS summarises to the best of our knowledge at the date of issue, the health and safety hazard information of the selected substance and how to safely handle the selected substance 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.

Hydro-Chem Pty Ltd responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request. If clarification or further information is required, the user should contact Hydro-Chem Pty Ltd using the contact details provided.

Manufacturers Advice DIRECTIONS FOR USE: It is a violation of Federal law to use this product in a manner inconsistent with its labelling.

Other Information ABBREVIATIONS:
 ACGIH - American Conference of Government Industrial Hygienists
 OSHA - Occupational Safety and Health Information
 TLV - Threshold Limit

Hydro-Balance is a range of products developed and manufactured by Hydro-Chem for the preventative maintenance of air conditioning and refrigeration systems.
 ...End Of MSDS...

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