



SETH NANDRAM DAULATRAM BIYANI INDIA PVT. LTD.

BROM-I-CIDE



Brom-i-cide is a high-performance Stabilized Bromine Biocide designed for effective microbial control in water treatment applications. Its advanced formulation ensures long-lasting protection against bacteria, algae, and biofilm formation, making it ideal for industrial cooling systems, swimming pools, and wastewater treatment. With superior stability and efficiency, Brom-i-cide provides a reliable and cost-effective solution for maintaining clean and safe water systems.

DISINFECTANT VS. BIOCIDES:

Understanding the Difference

A disinfectant is a chemical agent used to kill or inhibit the growth of harmful microorganisms, such as bacteria, viruses, and fungi, typically on surfaces or in water. It is commonly used in places like hospitals, food processing facilities, and households to prevent infections and maintain cleanliness. Disinfectants typically target specific types of microorganisms and are effective in short-term applications. They can be affected by environmental factors, such as organic matter and pH levels, which can reduce their effectiveness.

A biocide, on the other hand, is a broader term referring to substances designed to kill, control, or inhibit a wide range of harmful organisms, including bacteria, fungi, viruses, algae, and even pests. Biocides are used in a variety of industries such as water treatment, agriculture, pest control, and material preservation. Unlike disinfectants, biocides can provide longer-lasting protection and can be applied in closed systems like cooling towers and wastewater treatment plants. They are effective in both immediate and long-term applications, depending on the type of biocide used.

While all disinfectants are biocides, not all biocides are disinfectants. Disinfectants are mainly used for surface sterilization or short-term microbial control, whereas biocides offer a more comprehensive solution for controlling harmful microorganisms in various environments. For example, Brom-i-cide, a stabilized bromine-based biocide, is highly effective in water treatment systems, offering long-term microbial control in challenging conditions where chlorine may not be as effective.

DISINFECTANTS OFFER SHORT-TERM CONTROL, WHEREAS BIOCIDES LIKE BROM-I-CIDE PROVIDE LONG-LASTING PROTECTION.



BIOLOGICAL GROWTH ISSUES IN WATER TREATMENT

In cooling water systems, the growth of microorganisms like algae, fungi, and bacteria can cause significant issues such as fouling, blockages, and corrosion. Algae can contribute to metal corrosion and restrict water flow by forming slimy masses, while fungi cause wood rot and surface damage. Bacteria, especially sulfate-reducing types, produce hydrogen sulfide that corrodes metal surfaces. Biofilms formed by these microorganisms not only hinder heat transfer efficiency but also accelerate corrosion. Effective control of biological growth is essential to prevent these problems and ensure optimal system performance.

Growth Type	Examples	Problems Caused
Iron bacteria	Crenothrix, Leptothrix, Gallionella	Produce bulky slime deposits; Precipitate Ferric hydroxide
Sulphate-reducing bacteria (anaerobic)	Desulfovibrio	Grow under aerobic slime, causing corrosion; from hydrogen sulphide.
Sulphur Bacteria (aerobic)	Thiobacillus	Produce sulphuric acid from oxidized sulphur or sulphides
Aerobic spore forming bacteria	Bacillus	Produce bacterial slimes; spores difficult to kill
Aerobic capsulated bacteria	Aerobacter, Flavobacterium, Proteus, Pseudomonas, Serratia	Promote the growth of several bacteria slimes
Mold-type filamentous fungi	Aspergillus, Penicillium, Mucor, Fusarium, Alternaria	Promote surface rot of cooling tower wood; produce bacteria like slimes
Yeast-like fungi	Torula, Saccharomyces	Discolour cooling water and wood
Higher fungi (Basidiomycetes)	Poria, Lenzites	Cause severe internal rot in cooling tower wood
Diatom algae Blue/green algae Green algae	Flagiaria, Cycloteil, Diatoma Anacystis, Phormidium, Oscillatoria Chlorella, Ulothrix, Spirogyra	Heavy growth in spray ponds and cooling towers can interfere with water distribution, plug screens, and restrict flow in pipelines and pumps, algae can accelerate pitting corrosion when they adhere to metal ; massive growths handicap microbiological control by absorbing biocide.

PRODUCT SPECIFICATION

- **Industry Type** : Water Treatment
- **Product Category** : Disinfectant / Biocide
- **Product Name** : Brom-i-cide
- **Technical name of Product** : Stabilized Bromine Biocide

Parameter	Specification
Appearance	Clear yellow liquid
pH	Alkaline
Specific Gravity	1.25 ± 0.05
Available free bromine	20 ± 1%

PRODUCT DOSAGE

Typically, a dose of 0.3 to 2.0 ppm of total residual halogen, Dosage will vary depending on the characteristics of the system and microbial load.

PRODUCT FEEDING

Suggested to be dosed either continuous or slug.

PACKING

60kg Carboys.

STABILIZED BROMINE:

High Kill Rate & Proven Effectiveness

Stabilized bromine-based biocides provide a reliable and cost-effective solution for microbial control in various industries. Compared to chlorine-based alternatives, they remain stable and effective even at higher pH levels, efficiently eliminating biofilm and system contamination. With broad-spectrum antimicrobial properties, **Brom-i-cide** ensures superior performance in water treatment applications. Its ability to control bacteria, fungi, algae, and other microorganisms at low concentrations makes it a preferred choice for industries such as cooling water treatment, swimming pools, dairy processing, and pulp and paper manufacturing.

Micro-Organisms	Percent of Microbes Killed
(A) Bacteria	
<ul style="list-style-type: none">• Escherichia coli• Bacillus subtilis• Proteus vulgaris• Enterobacter aerogenes• Klebsiella pneumoniae• Pseudomonas aeruginosa• Salmonella choleraesuis• Staphylococcus aureus• Desulfovibrio desulfuricans	<p>99.99 99.98 99.97 99.97 99.98 99.90 99.98 99.99 99.98</p>
(B) Fungi	
<ul style="list-style-type: none">• Aspergillus niger• Penicillium chrysogenum• Trichoderma viride• Saccharomyces cerevisiae• Fusarium oxysporum• Pullularia pullulans• Candida albicans	<p>99.97 99.98 99.99 99.97 99.98 99.97 99.97</p>
(C) Algae	
<ul style="list-style-type: none">• Selenastrum capricornutum• Chlorella vulgaris	<p>99.99 99.99</p>

SUPERIOR CHOICE FOR WATER TREATMENT:

Brom-i-cide vs. Sodium Hypochlorite:

01 Base for Disinfection

Brom-i-cide uses Bromine as the base for disinfection, while Sodium Hypochlorite uses Chlorine.

02 Corrosivity

Brom-i-cide is less corrosive compared to Sodium Hypochlorite, making it safer for equipment and surfaces.

03 Efficacy in Water Treatment

Brom-i-cide has a higher efficacy than Chlorine in water treatment applications, providing better microbial control.

04 Effectiveness at High pH Levels

Brom-i-cide is more effective as a disinfectant, especially when the pH level is greater than 8 (common in many cooling towers), unlike Chlorine, which loses effectiveness at higher pH.

05 Shelf Life

Brom-i-cide has a longer shelf life of 3 months, while Sodium Hypochlorite only lasts for 7 days.

06 Decomposition Rate

Sodium Hypochlorite starts decomposing within 3-4 days of production, whereas Brom-i-cide remains stable for 3 months before starting to decompose.

07 Dosage Requirement

Brom-i-cide requires only 1/3 to 1/4 of the dosage compared to Sodium Hypochlorite for effective disinfection.

08 Longevity in the System

Brom-i-cide stays longer in the system compared to Chlorine due to its slower decomposition, offering more consistent results and lower consumption of the biocide.

ABOUT US

We are India's top Chemical Exporters and Suppliers of Organic and Inorganic Chemicals. We are well-known for our high-quality products and extremely competitive costs. Our company's products and services adhere to Internationally Accepted Standards. Our company is also ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 Certified.

SNDB targets India's potential as a major global chemical industry player, focusing on exporting and supplying chemicals under the slogan

" Creating Chemistry between India and the World "

The company aims to help India realize its potential and dominate 80% of global chemicals traded and utilized.



SNDB delivers Indian chemicals globally, focusing on quality, efficient logistics, and business excellence.



Our excellence is achieved through quality, knowledge, leadership, collaboration, personal development, and recognition.



SNDB values integrity, reliability, and customer-centricity, prioritizing honesty, quality, and meeting customer needs in all departments and operations.



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