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# Diya Chemicals

**pure**Treat  
Cooling Tower Chemicals

Product Name: - **AquaBio** -(Bioside)

## AquaBio

AquaBio is the most safe concept for the production of AquaBio and its a concept in which a pure Chlorine Dioxide solution of 0,45% is generated in water by the reaction of 2 stable liquids. The AquaBio is practically 100% pure (99,9%). There are no by-products such as free chlorine and chlorite. There is no risk of explosion. Due to all these advantages and the superior disinfection capacity, AquaBio is now a very useful disinfection product for many applications like Cooling tower, potable water, industrial activities, etc...

AquaBio is a strong biocide it Kills bacteria like algae, fungi, yeast, viruses, cyst. Also work on broad pH range (4-10). Destruction of and prevention against biofilm. Effective against legionella.

### Benefits Of AquaBio in Cooling Towers

Benefits of GreenOxide`s biofilm removal capacity In cooling system which Chlorine & other chemical does not have:

- 1) AquaBio increases the heat transfer rate: biofilm and inorganic deposition has a low thermal conductivity because of that there is a heat transfer loss but AquaBio can easily remove Biofilm and increase the heat transfer rate which chlorine cannot.
- 2) AquaBio reduces the Corrosion Rate: due to electrochemical cell formation in the biofilm and blocking of the contact of any corrosion inhibitor with the metal corrosion rate increases, but AquaBio removes the biofilm from the surface of metals and reduces the corrosion rate. And another reason is, on the basis of chemical properties Chlorine is more corrosive in comparison to AquaBio so it will reduce the quantity of Corrosion inhibitor too.



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AquaBio reduces the pumping energy to circulate the cooling water: the presence of a biofilm which has a high friction factor increases the demand of pumping energy. AquaBio reduces the requirement pumping energy by removing the biofilm.

## Other Benefits of AquaBio:

- 1) Effective at higher temperatures: AquaBio is very effective at the higher temperature also because it does not disassociate from the water as rapidly as chlorine (Chlorine Gas disassociate from the water at near about 40oC)
- 2) AquaBio is not pH dependent: In case of chlorine if the cooling water pH is 6 to 7.5 it can work but outside of this range it cannot work on the other hand in case of AquaBio it can work very well between 5 pH to 11pH.
- 3) AquaBio also does not react with most of the organic compound which are use as an anti scaling agent and other water treatment chemicals present in the cooling water.
- 4) The dosage required for biocide control remains fairly constant over a wide range of cooling water conditions.

Note:-

1. Dosing time after 6pm.
2. Use mask when dosing.
3. After making AquaBio wait for 5 hours for reaction time.

## **PACKING :-**

**AquaBio** is available in 5 ,10 & 20 liters HDPE carboys and drums.

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Product Name: - **Aquabreath -(Anti-Corrosive & Anti-Scaling )**

## AQUABREATH

**AQUABREATH** is an organic blend of antiscalants and polymeric dispersants to provide excellent control over mineral foulant in industrial cooling water system. Besides preventing scale formation and deposition, it also helps remove existing scales, when used under specified contains. It provides excellent control over iron fouling. The product exhibits excellent inhibitors of phosphate and carbonate salts. It enables dispersion of all insoluble particulate matter like clay, mud, slit etc. and helps to keep heat transfer surface clean and deposit free. It contains specific yellow metal corrosion inhibitor that has excellent stability. It is effective over a wide range of pH. It affords total control over corrosion, scaling and non-biological fouling.

### SPECIFICATION :-

Appearance	:	Clear Yellow Liquid
Weight per ml	:	1.0 – 1.1
pH (as is)	:	Acidic <6
Solubility	:	Soluble in Water

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## APPLICATION AND DOSAGE :-

- **AQUABREATH** exhibit scale control properties by threshold inhibitor, sequestration and crystal distortion. Coupled with the strong dispersants in the product, it provides excellent inhibition and dispersion of all mineral scales, dirt, dust, slit etc. and keeps the heat transfer surface clean. It can tolerance hardness at high levels in the system even up to 800-1000ppm as  $\text{CaCO}_3$  permitting operations at high recycle level.

## HANDLING AND STORAGE :-

- Avoid contact with eyes and prolonged contact with skin. In case of contact with eyes, flush with ample water and get prompt medical attention.
- Personal protective equipment should be used where appropriate.
- **AQUABREATH** containers should be store airtight under shade and away from direct sunlight.

## PACKING :-

**AQUABREATH** is available in 35 ltr, 50 ltr, & 100 liters HDPE carboys and drums.