

# FORMALDEHYDE SODIUM BISULFITE IN WATER TREATMENT



## Introduction

The Sodium Formaldehyde Bisulfite Chemical appears like White Free flowing crystals form. Formaldehyde Sodium Bisulfite does not react with dissolved oxygen in either freshwaters or saline waters. Formaldehyde Sodium Bisulfite achieves neutralization within one to five minutes for "free" chlorine (hypochlorites), ten to thirty minutes for chloramines (combined chlorine), and twelve minutes to one hour for free ammonia.

## Applications

- 1 Formaldehyde Sodium Bisulfite can be used for the removal of chloramines, chlorine and ammonia which, unlike existing zeolites and ion-exchange resins, functions as well in saline water as it does in freshwater treatment.
- 2 It can be used in combination with cheaper sodium bisulfite.

## Benefits

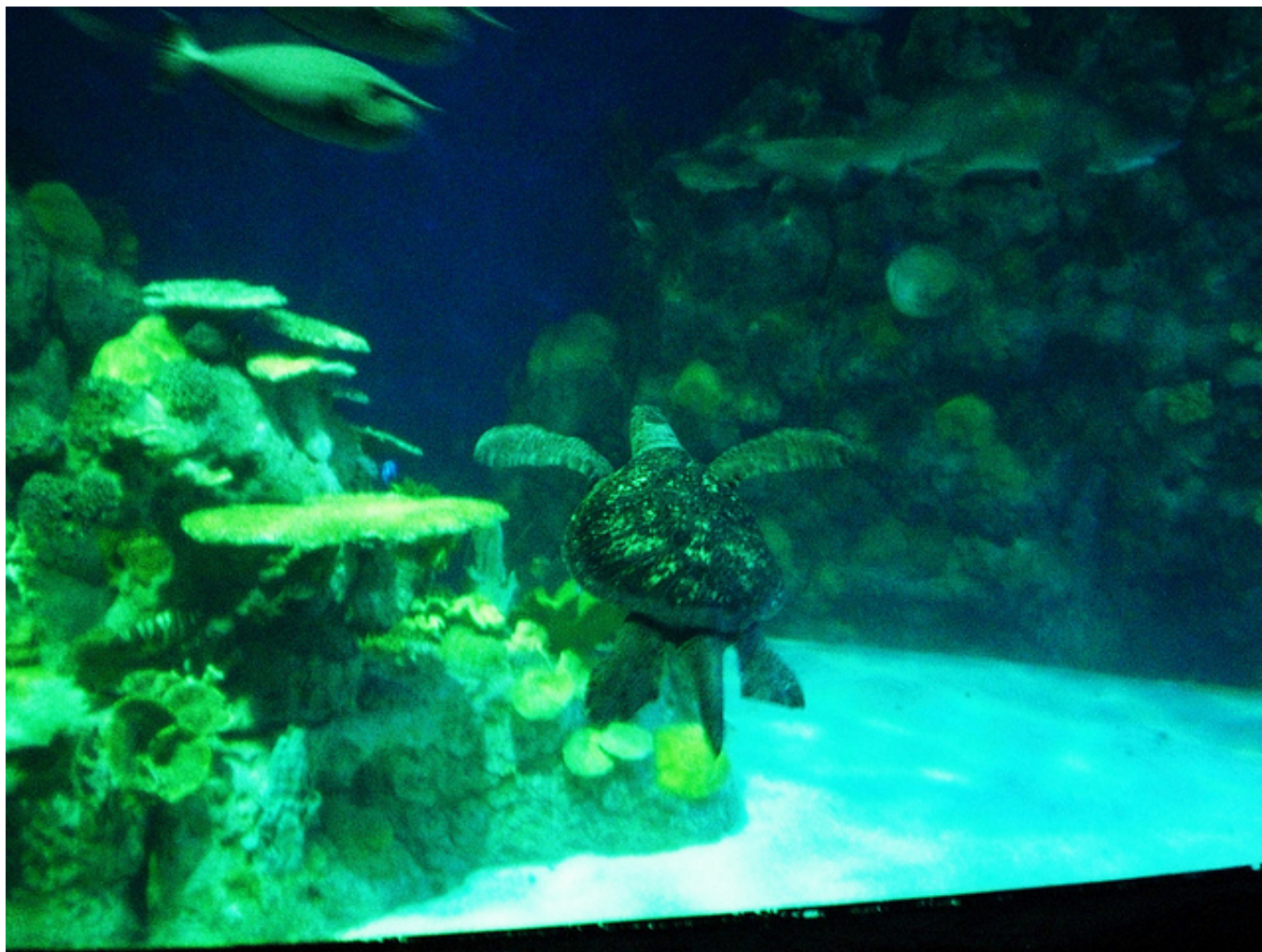
- 1 Formaldehyde Sodium Bisulfite is non-toxic to fishes, aquatic invertebrates, marine and freshwater algae, and aquatic plants.
- 2 It can work effectively in presence of commonly used antibiotics such as chloramphenicol, nitrofurans, and sulfa drugs.
- 3 It is not pH dependent and functions equally well throughout the normal pH range, 5.0 to 9.0 of waters in which most aquatic life is found.

Formaldehyde Sodium Bisulfite can be used in combination with cheaper sodium bisulfite as follows.

A two-part product consisting of a 9.525% solution of formaldehyde in water with or without suitable preservatives and/or buffers (i.e., methanol, phosphate buffer) and a second a 33.01% solution of sodium bisulfite ( $\text{NaHSO}_3$ ) in water. The two solutions to be combined, in equal portions by weight, and used at the rate of 5 mL per 10 gallons (37.8 liters) to treat pond water containing 1.0 ppm (1 mg/liter) free ammonia.

Formaldehyde Sodium Bisulfite when used as single dosage can be used as follows.

1. A single solution containing 21.27% sodium formaldehydebisulfite in water, to be used at the rate of 1 teaspoon (approximately 5 mL) per 20 gallons (75.7 liters) for the treatment of potable water containing 2.0 ppm (2.0 mg/liter) combined chlorine.
2. Formaldehyde Sodium Bisulfite can be used commercially in ratio of 1 teaspoonful (4.93 ml) per 20 gallons (75.7L) of water for neutralizing up to 4.0 ppm monochloramine measured as combined chlorine,



## Specifications

Test	Specification	Test Method
Appearance	Form: Free flowing crystals Colour: White	Visual
Purity as NaHSO <sub>3</sub> .CHOH on dry basis	min 98 %	
Thiosulphate as Pentahydrate Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> .5H <sub>2</sub> O	max 0.05 %	Volumetry
Moisture Content	max 3.0 %	Oven Drying (at 105 Deg C)
pH (10% Soln)	7.0-7.5	By pH Meter
Iron (Fe)	max 0.010%	By AAS
Lead (Pb)	max 0.005%	By AAS
Zinc (Zn)	max 0.005%	By AAS
Insoluble matter (Ca,Mg,NH <sub>4</sub> OH,ppt)	max 0.2 %	
Free Bisulphite % NaHSO <sub>3</sub>	nil	
Appearance of solution	Clearless, clear	visual

## Product FDA Status

Formaldehyde Sodium Bisulfite is not recommended for food contact polymers.

## Some Known Formulations

### MICROBE LIFT SUPER DECHLORINATOR +WATER CONDITIONE

Ingredients	% Composition
Formaldehyde sodium bisulfite	NA
Sodium chloride	NA
Sodium bicarbonate	NA
Edta tetrasodium salt	NA
Water	NA

### STRESS REDUCER PLUS

Ingredients	% Composition
Formaldehyde sodium bisulfite	<5
Sodium chloride	<5
Sodium bicarbonate	<5
Edta tetrasodium salt	<5
Water	>75

### 3D TRASAR DT191

Ingredients	% Composition
Methanol	0.1 - 1
Formaldehyde sodium bisulfite	1 - 10



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