

WATER GUARD, INC

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TECHNICAL BULLETIN ~ SODIUM BISULFITE

SODIUM BISULFITE is a yellowish-white solution with a strong pungent SO₂ odor. Water Guard provides Sodium Bisulfite in a 38%-40% non-food grade solution for use in the dechlorination of process and wastewater applications. Dechlorination of disinfected wastewater should be practiced to prevent harmful exposure of chlorine and chlorine compounds on plant and aquatic life.

Sodium Bisulfite is applied to the waste stream as it leaves the chlorine contact tanks. Detention time within the dechlorination contact chamber should be designed for either two minutes at average design flow or 10 seconds at peak wet weather flow. The chemical reaction dose ration for Sodium Bisulfite to total chlorine residual should be 1.5::1.

Sodium Bisulfite contains sulfites. Sulfites have been known to cause potentially lethal allergic reactions to sulfite-sensitive individuals. The maximum recommended allowable residual sulfite level in the finished drinking water is 100ppb (0.1mg/L).

REGISTRATIONS

National Sanitation Foundation:

Water Guard distributes NSF certified Sodium Bisulfite which meets NSF/ANSI 60 standards for use in drinking water systems for dechlorination purposes. Its maximum use level should not exceed 46 mg/L.

SPECIFICATION

Assay (Total Reducing Substances as % NaHSO₃)

38-40%

PHYSICAL AND CHEMICAL PROPERTIES

Concentration	38-40%
pH	4.5
Specific Gravity	1.33 at 20°C (68°F)
Freezing Point	6°C (43°F)
Solubility in H ₂ O	42% at 6°C (43°F)

STORAGE AND HANDLING

All employees who handle this material should be trained to handle it safely. Avoid breathing sprays or mists generated by this product. Store containers in a cool, dry location away from direct sunlight, sources of intense heat, and where freezing is possible. Keep container tightly closed when not in use. Avoid contact with leather, wool, and incompatible material. Store away from incompatible chemicals. Wash hands thoroughly after using this material. Workers must be thoroughly trained to handle this product without causing over-exposure. At ambient temperatures and atmospheric pressure, this product decomposes giving off sulfur dioxide gas.