

Wallace & Tiernan® Chlorine Dioxide Generation Systems

Sodium Hypochlorite 4.5% Co-Reactant

Sodium Hypochlorite 4.5% solution is specified as a co-reactant for the generation of chlorine dioxide solutions using Wallace & Tiernan® three-chemical generating systems for capacities of less than 140 pounds per day where 7.5% Sodium Chlorite is utilized as the chlorine dioxide precursor. All Sodium Hypochlorite 4.5% used as a co-reactant in Wallace & Tiernan® chlorine dioxide generators must meet the minimum specifications described under physical properties. Sodium Hypochlorite 4.5% that does not meet these specifications SHOULD NOT be used in Wallace & Tiernan® chlorine dioxide generating systems.

Typical Physical Properties

Appearance	Clear, greenish-yellow liquid
Odor	Slight chlorine odor
Solubility in Water	Complete
Specific Gravity	1.07 at 25°C (77°F)
Vapor Pressure	Approximately 17.5 mm Hg at 20°C (68°F)
Boiling Point	100°C (212°F) decomposes
Freezing Point	<-12°C (<10°F)
pH (as supplied)	11-12

Specifications

NaOCl, (wt %)	4.5 min.
NaOH, (wt %)	1.0 max.
Available Chlorine (wt %)	4.0 min. (extrapolation from 12.5)
Available Chlorine (vol %)	5.0 min. (extrapolation from 12.5)
Iron, mg/L	0.5 max.
Copper, mg/L	0.07 max.

Nickel, mg/L	0.01 max.
Zinc, mg/L	0.15 max.
Bromate ion (wt %)	0.00417

Typical Application

- Generation of chlorine dioxide

Typical Feed Requirements

Sodium Hypochlorite 4.5% is used in conjunction with other chlorine dioxide precursors to generate chlorine dioxide.

Sodium Hypochlorite 4.5% solution must be used only in conjunction with approved chlorine dioxide generation equipment and in accordance with the operating instructions of the generator.

For additional treatment information, including dosage specific to your application, please contact your Siemens representative.



Product Sheet

Storage and Handling

Store in a cool, dry, well-ventilated place away from heat, cold, direct sunlight, ammonia containing compounds, and/or acids. Protect from freezing. Always use care when opening containers and keep tightly closed when not in use. Do not reuse containers.

Sodium Hypochlorite 4.5% is corrosive. Wear personal protective equipment, such as goggles or safety glasses, gloves and other protective clothing when handling.

See Material Safety Data Sheet for additional safety information before storing or handling Sodium Hypochlorite 4.5%.

Packaging

Sodium Hypochlorite 4.5% is typically available in 55-gallon drums, totes, and in bulk quantities. For further information, please contact your Siemens representative.

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