Powell Continuous High Strength Low Salt Sodium Hypochlorite System

Expand Your Customer Base and Increase Your Profits
The Powell Continuous High Strength Low Salt Sodium Hypochlorite System can produce up to 30 wt% sodium hypochlorite containing only 7 wt% salt. With the reduction in salt content and the reduced levels of sodium chlorate achieved using the patented technology, diluted High Strength Low Salt (HSLS) Bleach is a high quality product that is more stable, has a significantly extended shelf life, and is 7% lighter in weight in comparison to standard bleach (13.5 wt% containing 10.5 wt% salt).

Consider the Advantages
The Powell Continuous HSLS Sodium Hypochlorite System offers many unique production, distribution, and storage advantages never before available.

Reclaimed, Evaporative Grade Salt Increases Profits
Up to 40% of the salt used to make the chlorine and caustic is reclaimed by the Powell Continuous HSLS Sodium Hypochlorite System. For example, a plant using 100 tons of chlorine per day could expect to recapture approximately 60 tons per day (21,000 tons per year) of evaporative salt. The reclaimed salt can be recycled back to the brine treatment system of the plant. This benefit can generate a significant reduction in raw material costs since less salt will need to be purchased to operate the plant.

High Quality Product with Twice the Shelf Life of Standard Bleach
The Powell Continuous HSLS Sodium Hypochlorite System utilizes a chilling process during production that significantly reduces decomposition losses during storage and transportation as well as reduces sodium chlorate formation.

When diluted to 13.5%, HSLS Bleach has a salt content of only 3% and twice the half life of standard bleach. Due to the total lower ionic strength of low salt bleach versus regular bleach of the same strength, diluted HSLS Bleach is twice as stable as standard bleach with a significantly reduced rate of decomposition.

Bleach Decomposition Model

![Bleach Decomposition Model Graph]

- Dil. Bleach wt% NaOCl
- Std. Bleach wt% NaOCl
Unique Advantages of Packaging Household Strength HSLS Bleach

Diluted HSLS Bleach is 7% lighter in weight in comparison to typical bleach. Because it is lighter, the plastic containers do not require the same thickness as containers for standard bleach. The combination of using less plastic for packaging along with the product being higher quality with twice the shelf life of competing products provides an increase in sales with higher profit margins.

Ship 30 wt% HSLS Bleach to an Extended Shipping Range

Properly trained and prequalified end users can receive HSLS Bleach at strengths of up to 30 wt%. When at 30 wt%, the HSLS Bleach is shipped in specially fabricated tank trucks, railcars, or barges, keeping it at a monitored temperature. Under these monitored conditions, 30 wt% HSLS Bleach produced with the Powell Continuous HSLS Sodium Hypochlorite System can be shipped up to 400 miles compared to the typical 150 - 200 mile shipping range of regular bleach. Transportation costs are significantly reduced in that more highly concentrated product can be shipped per truck load to twice the shipping range, allowing the distributor to increase their customer base while also lowering their shipping costs.

Shipping Diluted HSLS Bleach

Because it is lighter and more stable than standard bleach, shipping diluted HSLS Bleach offers many cost saving advantages. Unlike shipments of standard bleach, decomposition of the product is minimized to an insignificant rate and the diluted HSLS Bleach arrives at its destination close to the same strength as when it was originally shipped.

For example, HSLS Bleach diluted to 13.5 wt% has the same shelf life as standard 10.5 wt% bleach. Companies shipping 13.5 wt% bleach can increase their shipment load (on 100% basis) up to 33% without any increased decomposition losses per load.

Improved Sodium Hypochlorite Based Products

Before now, many products in the consumer market were limited due to the higher salt content found in standard bleach. Low salt bleach produced with the Powell Continuous HSLS Sodium Hypochlorite System increases the possibilities of offering better and more cost effective formulations of specialized household cleaners to the consumer, resulting in an improved product line and an increase in sales volume.

Complete Line of Sodium Hypochlorite Processing & Filtration Systems

Whatever your production volume, Powell can provide a Sodium Hypochlorite Processing System to meet your unique needs:

- Powell Continuous High Strength Low Salt Sodium Hypochlorite System
- Powell Continuous Sodium Hypochlorite System
- Powell Batch Sodium Hypochlorite System
- Powell Sodium Hypochlorite Filtration System
- Powell Sodium Hypochlorite Filter Press
- Powell Sodium Hypochlorite Dilution System

In addition to sodium hypochlorite systems, Powell also offers a full line of dilution systems, chlorine line equipment, unloading equipment, scrubber systems, and valve closure systems. For more information, visit our website at www.powellfab.com or call us toll free at 1.888.800.2310 (US) or 989.681.2158 (local & international calls).