

Improved Quality for Greater Profits High Purity Sodium Hypochlorite

Consider the Growing Trend for High Purity Sodium Hypochlorite

High purity sodium hypochlorite — bleach low in heavy metal content and suspended solids — is fast becoming the industry standard and is no longer considered a specialty product. As a result, product quality will be of even greater concern to sodium hypochlorite producers. The benefits of producing a product with only trace amounts of nickel, copper, and suspended solids are considerable for both you and your customers. The Powell Bleach Filter can help you take advantage of this growing market trend.

Bleach Filtration for High Purity Sodium Hypochlorite



Filtering of bleach to remove heavy metals and suspended solids is required in almost every application. Typically, bleach used in drinking water treatment and laundry bleach packaged in small bottles such as 1 gallon must be filtered. Other typical applications that require filtered bleach include wastewater treatment applications and any bleach stored at the customer's site in large tanks where accumulated suspended solids will precipitate with the heavy metals and settle to the bottom of the tanks.

The only filtering method that will produce the results required for these circumstances is a system that uses a filter aid in conjunction with additives to the bleach to help complex the metals and suspended solids. The typical filter aid is either perlite or diatomaceous earth. With a proper choice of filter aids and additives, it is possible to achieve maximum particle size of approximately 0.2 micron, and metal contents of < 0.5 PPM of iron, < 0.05 PPM of nickel and < 0.05 PPM of copper.

The Powell Bleach Filter System is the only packaged system available that offers a guaranteed performance in an engineered system with the correct materials of construction such as titanium for metal components and PVC and Teflon® as nonmetallic components. The Powell Bleach Filter System provides the highest level of bleach quality available in the market and can be used with any quality caustic to yield bleach that can be packaged for the household market using sealed bottles, in the drinking water industry or any other application required.

Seven Reasons Why You'll Benefit from Higher Quality

- You can produce sodium hypochlorite using any quality of sodium hydroxide, including diaphragm cell caustic. This gives you a wider choice of suppliers, which usually results in lower material cost and subsequent reductions in production costs.
- You can sell your higher quality product at a higher price, a basic principle of supply and demand that's been proven many times in the more than 20 years we've sold Powell Bleach Filters.
- High purity sodium hypochlorite does not decompose as rapidly as standard grade, so you can reduce the strength of the product you produce.
- Oxygen formation is significantly lower. As a result, product safety is improved, allowing customers to package product without bottles swelling due to oxygen formation.
- Costly customer quality complaints relating to oxygen and solids formation in storage tanks, pumps and piping are eliminated.
- After filtration, sniff gas bleach can be sold as high quality bleach virtually because all contaminants are removed during final filtration, so most plant wastewater, including filter backwash water, containment are drains, and other wastewater, can be reused to make bleach. Many plants using the Powell System have no wastewater connections to sanitary sewer systems.

Seven Reason Why Your Customers Will Buy It

- Compared to standard grade bleach, decomposition of high purity sodium hypochlorite is reduced significantly in all storage conditions so your customer will experience longer storage life.
- The bleach you deliver will contain lower chlorate levels.
- Suspended solids are at nearly undetectable levels, so settling is eliminated in piping, pumps, and instrumentation.
- Only negligible amounts of oxygen will be generated, substantially minimizing the source of valve and line ruptures in PVC piping systems.
- Low oxygen generation minimizes problems in packaging and bottling operations.
- Existing insoluble compounds that may be coating and plugging feed systems will be reabsorbed in the sodium hypochlorite feed solution, eliminating future problems.
- Substantially reduced total overall maintenance cost of all sodium hypochlorite storage and handling systems.

Buy or Lease Powell Equipment

The Powell Bleach Filter can be purchased outright or you may lease the equipment. We may also be able to help you arrange financing for your purchase. For details and availability, call 989.681.2158.

For Information on Powell Equipment or Products

General information on sodium hypochlorite decomposition, quality, bleach testing and other items is available on our website at www.powellfab.com. Click on *Resources You Can Use* and then click *Sodium Hypochlorite*.

Information is also available on the Powell Bleach Filter, as well as the full line of Powell equipment and products. To obtain literature, test data, engineering drawings, and/or free CD's, fax 989.681.5013 or e-mail your request to info@powellfab.com. You may also call 989.681.2158 to speak with a technical representative. For immediate information, visit our web site at www.powellfab.com.



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