

# Mercury Control Sodium Bromine, 45% Solution

## DESCRIPTION

Mercury Control Sodium Bromide is an aqueous solution of 45 wt.% sodium bromide salt.

## APPLICATIONS

Mercury Control Sodium Bromide can be used to enhance the oxidation of the elemental mercury that is present in flue gas environments at power generation units and incinerators. Oxidized mercury is more readily removable via conventional pollution processes and equipment. Sodium Bromide can also be added to adsorption materials such as activated carbon to enhance elemental mercury uptake.

## FEATURES

Sodium Bromide 45% solution has the highest stable concentration of sodium bromide in an aqueous solution. This product is able to deliver bromide to a process while keeping the water content as low as possible. The total crystallization temperature for this product is 38°F and is considered by some users as their summer-grade of product.

## TYPICAL PROPERTIES

Assay as NaBr (wt%)	44.0 – 46.0
Density @ 70°F	11.5 – 12.0
pH (1:10 Dilution)	6.0 – 8.0
Chloride	< 1.0
Appearance	No Visual Impurities

These properties are typical but do not constitute a specification either in part or as a whole. Specification data is available on request from sales, customer service or customer technical service.

## COMPATIBILITY

### Materials of Construction

This product is compatible with most non-metallic materials of construction such as fiberglass-reinforced plastic (vinyl ester or polyester FRP), polyvinyl chloride (PVC), chlorinated polyvinyl chloride (CPVC), high density polyethylene, polypropylene, Viton®, Teflon®, natural rubber, chlorobutyl rubber, Hypalon®, HALAR® ECTFE, Tefzel® ETFE, and most high-performance PTFE-based gasket materials such as W.L. Gore GORE-TEX® GR, W.L. Gore UPG Style 800, and Garlock Gylon® Styles 3504 and 3500.

Titanium and high-nickel alloys such as Inconel® 625 & 686, and Hastelloy® C-22 & C-276 also are suitable materials of construction.

### Incompatible Materials of Construction

The compatibility of this product with common metals depends on the storage conditions and the environment that the material is in. Aluminum, brass, carbon steel, copper, stainless steel and other common metals generally are not suitable for use. Carbon steel and copper can result in discoloration of the product. Aluminum suffers pitting attack. Dissolved oxygen increases the corrosion rate of stainless steel.

### Recommended Materials of Construction for Storage Tanks

Vinyl Ester FRP such as Ashland Derakane® 411 or 470 is suitable for use, as is bisphenol A fumarate polyester FRP such as Reichhold Atlac® 6694.

### Recommended Materials of Construction for Piping and Valves

For piping, an adhesive socket FRP system such as Reinforced Plastics Systems P150 series or Smith Fibercast® CL-2030 series is suitable. A flat-faced FRP ball valve such as the Nil-Cor® 310 series is a good choice for FRP piping. PP-lined steel also is suitable. For low-pressure lines (<5 psig) such as overflows and drain lines, solid PVC or CPVC piping can be used, but should be safeguarded from mechanical damage.

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**SAFETY AND HANDLING INFORMATION**

For specific safety and handling information, please refer to the current material safety data sheet.

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**CHEMICAL REGISTRATION NUMBERS**

CAS: 7647-15-6  
EINECS: 231-599-9  
MITI: 1-113  
KECL: KE-31368

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**RESPONSIBLE CARE**

Albemarle is committed to the safety and well-being of our customers, employees and the community at large. Safety Data Sheets (SDS) are available upon request.

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