

Description

ALBROM 100PC disinfectant is a bromine-based disinfectant. It is a white to off-white nugget with a mild odor, and has a long shelf life.

Applications

ALBROM 100PC disinfectant is used as a disinfectant for swimming pools, spas, hot tubs, and fountains.

Typical Properties

Appearance white to off-white solid
 Available bromine (Br₂), % 111
 Active ingredient, expressed as wt% Br 55.5
 Bulk density, packed g/mL at ambient temperature 1.1
 Melting/decomposition temperature, DSC, °C 197 - 203
 Solubility in water, wt%, at 68 °F (20 °C) 0.1
 pH (1% slurry in water) 6.6
 Odor mild halogen
 Nugget size range, in (mm) 0.13 - 0.31 (3.3 - 7.9)

Shelf Life

The shelf life of this product is at least one year at normal ambient conditions when properly stored in its original container.

Explanation of Available Bromine (Br₂)

Historically, elemental bromine, Br₂ (molecular weight = 159.8 g/mol) was assigned to be 100% available bromine. In water, elemental bromine undergoes a hydrolysis reaction in which only one-half of the molecule is converted to the active form.



The activities of compounds that release the active form of bromine (HOBr) are typically expressed as the amount of elemental Br₂ that would be required to yield the same activity. For example, Albrom 100 disinfectant (molecular weight = 285.3) releases two molecules of active bromine (HOBr) in water.

It requires two molecules of elemental bromine (Br₂) to produce two molecules of active bromine (HOBr). The molecular weight of two molecules of Br₂ is 319.6 g/mol (2 x 159.8).

Therefore the amount of available bromine from Albrom 100 disinfectant can be calculated as follows:

$$(319.6 \div 285.3) \times 100 = 112\%$$

Product purity for Albrom 100PC disinfectant is 99.4%; therefore, the actual available bromine is 111%.

Compatibility

ALBROM 100PC disinfectant is an oxidizing and brominating agent. Contact in the neat form with organic materials such as alcohols and aldehydes, strong reducing agents, acids and ammonia-containing products should be avoided.

ALBROM 100PC disinfectant can be stored in high density polyethylene (HDPE), low density polyethylene (LDPE) and polypropylene (PP). It is expected to be compatible with Teflon®, polyvinyl chloride (PVC), Viton®, Kynar®, chlorobutyl rubber and Hypalon®. Do not store this product in metal or fiber-board containers. This product is compatible with metals at use concentration.

Shipping Information

Container Information

Available in supersacks and pails

Shipping Classifications

Proper shipping name:	OXIDIZING SOLID, N.O.S. (1,3-DIBROMO-5,5-DIMETHYLHYDANTOIN)
Hazard class:	5.1
ID number:	UN1479
Packing group:	II
Label:	Oxidizer with number 5.1
Placard:	Oxidizer with number 5.1

Safety and Handling Information

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

Regulatory Information

U.S. EPA registration number: 3377-61

The information presented herein is believed to be accurate and reliable, but is presented without guarantee or responsibility on the part of Albemarle Corporation. It is the responsibility of the user to comply with all applicable laws and regulations and to provide for a safe workplace. The user should consider any health or safety hazards or information contained herein only as a guide, and should take those precautions which are necessary or prudent to instruct employees and to develop work practice procedures in order to promote a safe work environment. Further, nothing contained herein shall be taken as an inducement or recommendation to manufacture or use any of the herein materials or processes in violation of existing or future patents.



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