

## Technical Data

# EMPIGEN® BAC 50

## Benzalkonium chloride

### Description

EMPIGEN® BAC 50 is an aqueous solution of benzalkonium chloride at ca. 50% in water.

### Sales specification (parameters quoted on certificate of analysis)

Appearance at 25°C	Clear liquid, free of foreign matter
Active matter (MMW 354)	49.5 - 50.5%
Free amine (MMW F221)	0.5% max.
pH (5%)	6.5 - 8.5
Colour Hazen (as is)	100 max

Test methods are available from Innospec upon request

### Additional Information

Viscosity at 25°C	ca. 120 m.Pa.s.
Density at 25°C	ca. 0.99 g/cm <sup>3</sup>
Set Point	ca. - 8°C
Clear Point	ca. 1°C

### Applications

Benzalkonium chloride is a cationic surfactant with biocidal properties and it is commonly used in various types of disinfectant and hygienic cleaners for this purpose. It is also used as an algicide and in wood treatment.

Combinations with anionic surfactants may reduce the biocidal performance. The product is used in conjunction with non-ionic surfactants but very high levels of non-ionic surfactants may also reduce the performance.

The cationic nature also enables it to be used as an anti-static agent and as a dye-levelling agent.

## Handling and storage

See also the corresponding Safety Data Sheet for further information on health and safety.

It is recommended to store the product below 40°C. At lower temperatures (<20°C) physical separation is possible, particularly after prolonged periods, and in this case it is recommended to homogenize it before use.

Above 40°C the colour can be expected to gradually deteriorate with age, although this is not expected to affect other aspects of product quality. This product contains a significant amount of chloride which may be corrosive towards common metals.

This product is considered chemically stable for at least 24 months from the date of manufacture. After this period it is recommended to re-check the analysis according to the specification.

## Preservation

The product has biocidal properties and does not contain a separate preservative.

## Regulatory Information

This product is wholly derived from raw materials of vegetable, mineral and / or synthetic origin and materials of animal origin are not intentionally employed on the units where it is manufactured or processed. Therefore we have no reason to expect the possibility of contamination by agents that might cause BSE / TSE.

Feedstocks may include material chemically derived from coconut or palm kernel oil. To the best of our knowledge, neither species is grown on a commercial scale using genetically modified strains (GMO). In addition, it is believed that genetically modified material would not survive the subsequent physical and chemical processes involved during extraction of the oil and chemical derivatisation.

The active substance has been notified for the product types PT 1, 2, 3, 4, 8, 10, 11 and 12 according to the European Biocidal Products Regulation (528/2012/EC) and subsequent amendments.

EMPIGEN® BAC 50

Creation date: **04-01-1994** N°: **TD0073**

Revision date: **16-01-2017** Issue: **7**



**APROVADO**  
**Dep. De Qualidade**

**Innospec Performance Chemicals**  
**Europe Limited**  
**Oil Sites Road**  
**Ellesmere Port**  
**Cheshire**  
**UK**  
**CH65 4EY**  
**[www.innospecinc.com](http://www.innospecinc.com)**

The facts stated and the recommendations made are based on our own research and/or the research of others, and are believed to be accurate. No guarantee of their accuracy is made, however, and unless otherwise expressly provided by law or in written contract, the materials are sold without warranties, expressed or implied, in particular without guarantee as to suitability for particular purpose. Innospec assumes no responsibility for injury or damage to users or third parties. Recipient agrees to assume all risk and liability whether used singly or in combination with other materials.