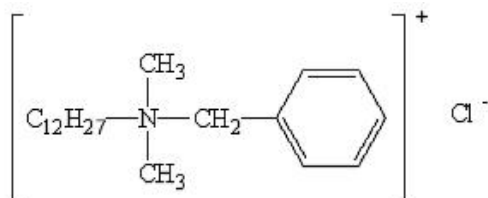


## Dodecyl Dimethyl Benzyl Ammonium Chloride (Benzalkonium Chloride) (DDBAC/BKC)



<b>CAS No.</b>	8001-54-5 or 63449-41-2,139-07-1	<b>EINECS No.</b>	264-151-6,205-35 1-5
<b>Molecular Formula</b>	C <sub>22</sub> H <sub>40</sub> NCl	<b>Molecular Weight</b>	354.0

### Structural Formula



### Product Features

Benzalkonium Chloride(DDBAC/BKC) is one of the Quaternary ammonium class of Cationic surfactants, belonging to nonoxidizing biocide. Benzalkonium Chloride(DDBAC/BKC) is widely used as a disinfectant in the Hospital, Livestock and Personal Hygiene sectors. Dual biocidal and detergency properties ensure high efficacy against Bacteria, Algae and Fungi and enveloped Viruses at exceptionally low ppm concentrations. Benzalkonium Chloride(DDBAC/BKC) also has dispersing and penetrating properties, with advantages of low toxicity, no toxicity accumulation, soluble in water, convenient in use, unaffected by water hardness. Benzalkonium Chloride(DDBAC/BKC) can be also used as anti-mildew agent, antistatic agent, emulsifying agent and amendment agent in woven and dyeing fields.

### Technical Specification

Parameter	Standard		
Appearance	Pale yellow transparent liquid	Pale yellow transparent liquid	White crystal powder
Active content, %	50 min	80 min	98 min
Amine salt, %	1.0 max	1.0 max	1.5 max
Free amine, %	-	-	2.0 max
pH	6.0~8.0(as it)	6.0-8.0(1% water solution)	5.0-8.0(1% water solution)

## Applications & Usage

Items	Index		
Oil & Gas	Pipeline corrosion inhibitor. Prevents formation of sulphurous gases. De-emulsifier/sludge breaker for enhanced oil extraction.		
Manufacture of Detergent-Sanitiser	Benzalkonium Chloride(DDBAC/BKC) safely incorporates both Microbicidal & Detergency Properties into Products for Soil Penetration & Disinfection, which makes it ideal for Formulation of Hygiene Products for Personal Hygiene, Hospital, Livestock and Food & Dairy use.		
Pharmaceuticals & Cosmetics	Safety Factor of Benzalkonium Chloride(DDBAC/BKC) leads to use in Various Topical and Ocular Products as a Preservative and to optimise Emolliency and Substantivity		
Food & Beverage Industry	On account of its non-toxic, non-corrosive, non-tainting, non-staining characteristics, Benzalkonium Chloride(DDBAC/BKC) is widely used in the Formulation of Cleaner-Sanitiser for:		
	Dairy Industry	Fisheries	Food Storage Tanks
	Slaughter Houses	Bottling Plants	Milk Storage Tanks
	Breweries	Catering Industry	Cold Storage plants
Polymer & Coatings	Benzalkonium Chloride(DDBAC/BKC) is widely used as an Anti-Static, Emulsifier & Preservative in the Coatings Industry (Paints, Wood Treatment, Electronics)		
Chemical Industry	Benzalkonium Chloride(DDBAC/BKC) has diverse applications in the Chemical Industry as Precipitant, Phase Transfer Catalyst, Emulsifier/De-Emulsifier, etc.		
Water Treatment	Benzalkonium Chloride(DDBAC/BKC) is used in Water & Effluent Treatment Formulations and Algaecides for Swimming Pools		
Aquaculture	Benzalkonium Chloride(DDBAC/BKC) reduces the requirement of harmful Antibiotics in Aquaculture through improved hygiene. Used for Water Treatment, General Site Disinfection, Fish Parasite Removal, Prevention of Infectious Disease In Fish & Shellfish.		
Timber Protection	Global environmental concern has led to increasing replacement of chlorinated biocides with safer, biodegradable Benzalkonium Chloride(DDBAC/BKC) in Wood Protection. It displays excellent fungicidal and algaecidal properties, and is highly effective against other organisms in combination formulations.		
Pulp & Paper Industry	Benzalkonium Chloride(DDBAC/BKC) is used as a General Microbicide for Slime Control & Odour Management, and improves Paper Handling (Imparts Strength & Antistatic properties)		
Textile Industry	Benzalkonium Chloride(DDBAC/BKC) solutions are used as Moth Repellents, Permanent Retarders in Dyeing of Acrylic Fibres with Cationic Dyestuffs.		

Leather Industry	Benzalkonium Chloride(DDBAC/BKC) inhibits growth of Mould & Mildew on Hides. Facilitates Leather Softening, Wetting & Dyeing.
Horticulture & Household	Benzalkonium Chloride(DDBAC/BKC) is highly effective against Mould, Mildew, Moss, Fungi & Algae and is used for cleaning and preparation of all types of Surfaces: Greenhouses, Roofing, Paths, Wooden decking, Sheds, Masonry


As nonoxidizing boicide, dosage of 50-100mg/L is preferred; as sludge remover, 200-300mg/L is preferred, adequate organosilyl antifoaming agent should be added for this purpose. Benzalkonium Chloride(DDBAC/BKC) can be used together with other fungicidal such as isothiazolinones, glutaraldehyde, dithionitrile methane for synergism, but cannot be used together with chlorophenols. If sewage is appeared after thrown of this product in circulating cool water, the sewage should be filtered or blown off in time to prevent their deposit in bottom of collecting tank after froth disappearance.

Benzalkonium Chloride(DDBAC/BKC) can not be blending with anion surfactant.

## Package & Storage

25kg Bag	200L Drum	1000L IBC
		
Storage for one year in shady room and dry place.		

## Hazard & Safety Precaution

Hazard Information	Safety Precaution
 Corrosive, Class 8, UN 3265	
Once contacted with eye and skin, flush with plenty of clean water.	

## Alternative Name / Synonyms

- Benzalkonium Chloride;
- BKC/BAC, Quats 50, Quats80, ADBAC, DDBAC
- Quaternary ammonium compounds,
- benzyl-C12-16-alkyldimethyl chlorides
- Benzyl-C12-16-alkyldimethylammonium chlorides,
- Dodecyl Dimethyl Benzyl ammonium Chloride;

- Lauryl dimethyl benzyl ammonium chloride;
- Benzyl-Lauryl dimethyl ammonium chloride
- бензалкония хлорид (додецил диметил бензил хлорида аммония)