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# **Product Bulletin**

## **ANTIMICROBRIALS**

Product Name

Chemical Structure

Chemical Description/CAS Registry No.

EPA Registration No.

**Applications** 

### Composition

Typical Properties

Environmental Effects

Health Effects
June 2017
Supersedes:
April 2012
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BTC® 1210-80%

$$\begin{bmatrix} CH_{3} & & & \\ R - N - CH_{2} & & & \\ CH_{3} & & & \\ CH_{3} & & & \\ R = 50\% \ C_{14}, \ 40\% \ C_{12}, \ 10\% \ C_{16} & & & \\ CH_{3} & & & \\ CH_{4} & & & \\ CH_{5} & & &$$

n-Alkyl Dimethyl Benzyl Ammonium Chloride (CAS Registry No. 68424-85-1) and Didecyl Dimethyl Ammonium Chloride (CAS Registry No. 7173-51-5)

1839-191

BTC 1210-80% IS A CATIONIC MATERIAL. DO NOT MIX WITH SOAP OR OTHER ANIONIC MATERIALS. For formulation into antimicrobial products for use in agricultural/farm premises, structures, buildings, and equipment; dairy farm milk handling facilities, equipment, storage rooms, houses and sheds; food processing plant, food handling, food distribution equipment and premises; eating establishment premises and equipment; commercial, institutional, and industrial premises and equipment (floors, walls, storage areas); domestic dwellings, food handling areas, bathroom premises (hard surfaces), indoor premises; and medical, institutional, critical care and non-critical premises and laundry; wood preservative-seasoned wood pressure/thermal and non-pressure treatment (joinery/remedial) treatment and sapstain treatment. For formulation into antimicrobial products for use in air conditioner/refrigeration condensate water systems, air washer and industrial scrubbing systems, once-through and recirculating industrial/commercial cooling water systems, pulp/paper mill water systems, gas/oil drilling muds/packer fluids (terrestrial), gas/oil pipelines maintenance, gas/oil recovery injection water systems, gas/oil fracturing fluid systems and swimming pools. Formulators using this product are responsible for providing data for the EPA registration of their formulated products.

### Active Ingredients, %

n-Alkyl (50% C14, 40% C12, 10% C16) Dimethyl Benzyl Ammonium Chloride	32
Didecyl Dimethyl Ammonium Chloride	48
Inert Ingredients,	20
Total, %	100
Appearance at 25°C	Clear liquid
pH, 10% aqueous	
Free amine and amine hydrochloride, %	2.0 max
Color, APHA	250 max
Viscosity, cps at 25°C	262
Pour Point, °C (°F)	16 (3.2)
Flash Point, PMCC, °C (°F)	
Density, g/ml (lbs/U.S. gal)	
RVOC, U.S. EPA, % Ethanol	11-17
Freeze Point, °C (°F)	

BTC products are biodegradable. Additional information is available upon request.

BTC 1210-80% is moderately toxic orally (LD<sub>50</sub> is between 50-500 mg/kg) and corrosive to skin and eyes at 50%.

BTC® is a registered trademark of Stepan Company.



Storage & Handling

Handle liquid BTC products with care; use away from sparks and open flame. Use in well ventilated area. Avoid contact with eyes, nose and skin contact. Gloves, protective clothing, safety goggles and face shield should be worn when handling BTC products. Wash thoroughly after handling material.

Standard Packaging: BTC 1210-80% is available in 55 gallon drums (400 lb, 181 kg), in totes (2204 lbs, 1 MT) and in bulk quantities.

It is recommended that BTC products be stored in sealed containers and kept in a cool, dry place. If material is frozen, it should be heated gently and stirred to ensure it is homogeneous before use.

<u>Bulk Storage Information</u>: BTC quaternaries can be stored in vessels of 316 stainless steel or in fiberglass having a corrosion liner. Contact between quaternaries and anionic materials must be avoided. At use dilution, BTC quaternaries are non-corrosive to most plastics, natural rubber, stainless steel, monel metal, iron, brass, aluminum, lead and tin; however, BTC quaternaries as supplied, may be corrosive to the materials listed above.

Liquid BTC products should be stored at room temperature between 77 - 120°F. An internal hairpin coil of 316 stainless steel with low pressure steam (under 50 psig) should be used if heating is required. Mild agitation is recommended while storing to maintain homogeneity. Pumps, pipes and transfer lines should be 316 stainless steel. Rubber hoses with Teflon cross-linked polyethylene with 316 S.S. fittings are recommended for loading and unloading.

Workplace Exposure Occupational exposure can occur primarily through skin contact or via inhalation of vapors and mists. Engineering controls, personal protective equipment, and other workplace practices should be used to control these exposures.

Clearances

BTC 1210-80% is listed in the following countries; the registration numbers for the active ingredients are included in parentheses United States (TSCA 7173-51-5; 68424-85-1), Australia (AICS 7173-51-5; 68424-85-1); Canada (DSL 7173-51-5; 68424-85-1), Europe (EINECS 230-525-2; 270-325-2), Korea (ECL Serial No. KE-10281; KE-29999), Philippines (PICCS 7173-51-5; 68424-85-1), and China (IECSC 7173-51-5; 68424-85-1), Japan (ENCS 9-1971, 3-2694) and New Zealand (NZIoC 7173-51-5, 68424-85-1).

Residues of BTC 1210-80% are exempted from the requirement of a tolerance under 40 CFR 180.940(a) & (c) when used in an antimicrobial pesticide formulation applied to a food contact surface in public eating establishments, dairies and food processing equipment/utensils.

It is the responsibility of the formulator to review the chemical control regulations for each country where the end product is intended to be sold or used.

Registration

In the U.S., all products used on inanimate surfaces which are sold and claimed to be bacteriostatic, germicidal, algaecidal or to kill or inhibit organisms in any way, are required to be registered with the U.S. Environmental Protection Agency. Formulators are responsible for any additional data which may be required by local, state or country agencies.

Product Stewardship This product bulletin has been written in accordance with ACC's Product Stewardship guidelines.

Additional Safety Information A Safety Data Sheet is available upon request.



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