

Chemical Factsheet

Alkyl dimethyl benzyl ammonium chloride (ADBAC)

(Benzalkonium chloride, Dimethylcocobenzalkonium chloride, Quaternary ammonium compounds (24))

General Information

- Product Names:
 - Brulin QDC** (Brulin)
 - Saygen 3 in 1 Algaecide** (Miami Products)
 - Quat-A-Mone** (Alpharma)
 - Zep bowl shine** (Zep)
 - Magic Germicide** (ABC Compounding)
 - Super Grit** (ABC Compounding)
 - Pine-Sol** (Clorox)
 - Lemon-Sol** (Clorox)
- Chemical Class: Quaternary amines/Antimicrobial
- Uses: General use for wood treatment, carpets, textiles, indoor/outdoor hard surfaces, shoes, residential and agricultural premise and equipment, aquatic areas, food handling/storage including eggs, medical instruments, commercial/industrial processes and water systems. ADBAC is also applied to nursery ornamentals and turf, and is used for mosquito control in ponds and puddles.
- Beyond Pesticides rating: [Toxic](#)

Health and Environmental Effects

See citations at end of document.

- Cancer: Not documented
- Endocrine Disruption: Not documented
- Reproductive Effects: Not documented
- Neurotoxicity: Not documented
- Kidney/Liver Damage: Not documented
- Sensitizer/ Irritant: Yes: skin, respiratory (1)
- Birth/Developmental: Not documented
- Detected in Groundwater: Not documented
- Potential Leacher: Not documented
- Toxic to Birds: Yes (1)
- Toxic to Fish/Aquatic Organisms: Yes (1)
- Toxic to Bees: Not documented

Residential Uses as Found in the ManageSafe™ Database

- [Mold](#)
- [Wasps and Yellowjackets](#)

Additional Information

- Regulatory Status:
 - [EPA Regulatory Documents](#)
 - [Antimicrobial Pesticide Registration](#)
- Supporting information:
 - [CDC Guideline for Disinfection and Sterilization in Healthcare Facilities](#)
 - [PAN Pesticides Database](#): (Pesticide Action Network)
 - [Household Products Database](#).
- Studies:
 - [Benzalkonium chloride induced bronchoconstriction in patients with stable bronchial asthma](#). [Lee BH, Kim SH. 2007. Korean J Intern Med. 22(4):244-8.]
 - [Quaternary ammonium compounds and occupational asthma](#). [Purohit A, Kopferschmitt-Kubler MC, et al. 2000. Int Arch Occup Environ Health. 273(6):423-7.]
 - [Occupational asthma due to indirect exposure to lauryl dimethyl benzyl ammonium chloride used in a floor cleaner](#). [Burge PS and Richardson MN. 1994. Thorax. 49(8):842-3.]

Gateway Health and Environmental Effects Citations

1. US EPA, Office of Prevention, Pesticides and Toxic Substances, Reregistration Eligibility Decisions (REDs), Interim REDs (iREDs) and RED Factsheets.

<https://archive.epa.gov/pesticides/reregistration/web/html/status.html>.

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