



EPA-Registered Biocides



Leadership. Service. Flexibility. Success. **We're going further.**

Charting Your Course with Innovative Chemical Solutions

Pilot's tailored solutions have spanned the globe for more than 50 years. A commitment to unique chemical processes and efficient manufacturing is our hallmark. Pilot's industry insight allows us to create surfactants designed to maximize your opportunities in new product development.

With strategically located facilities, we provide customized manufacturing solutions, and our expert team of technical specialists gives you rapid access to knowledgeable and reliable assistance at all stages of production. In addition, Pilot's well-established distributor network has built a record of consistent, on-time delivery.

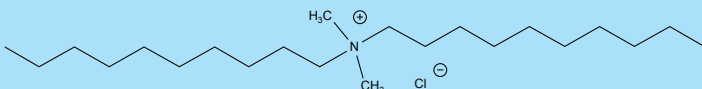
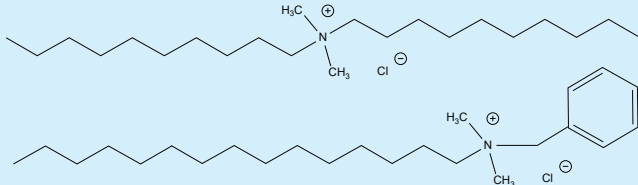
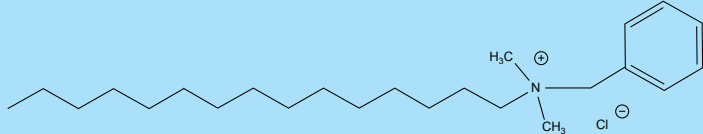
Time after time, our custom programs succeed at delivering high yields. Pilot's leading-edge approach, personalized to each customer's needs, helps you achieve success.

We are a dynamic, market-focused and environmentally conscious company, offering the comprehensive chemical dexterity you expect from an industry leader. Whether you're producing detergents, personal care products, synthetic rubber, lubricants or other products, you can depend on Pilot to help lead you to success.



Maquat® EPA Registered Products

Pilot Chemical Company produces the highest quality and broadest range of EPA Registered Biocidal Quaternaries in the industry and continues to lead the industry with consistent high quality, product performance, and attentive customer service and support.

Maquat® Grade	Structure/Description	Cross Reference		
		Stepan	Lonza	
		EPA #1839	EPA#6836	EPA# 47371
<div>Dialkyl Quats</div> <div></div>		<div>Dialkyl (Dialkyl Dimethyl Ammonium Chloride) Quats are recognized for outstanding germicidal performance, unusual tolerance for anionic surfactants, protein loads and hard water, and are exempted from the requirement of a tolerance in food-contact surface sanitizing solutions at concentrations up to 240 ppm without a potable water rinse.</div>		
*40-50 (EPA Reg.#10324-31)	20% Dioctyl, 30% Didecyl, 50% Octyldecyl dimethyl ammonium chlorides	BTC 818 BTC 818-80%	Bardac 2050 Bardac 2080	FMB 302
*4450-E (EPA Reg.#10324-34) *4480-E (EPA Reg.#10324-35)	Didecyl ammonium chloride	BTC 1010 BTC 1010-80%	Bardac 2250 Bardac 2280	FMB 210-5 FMB 210-8
<div>Dialkyl Blend Quats</div> <div></div>		<div>Dialkyl (Dialkyl Dimethyl Ammonium Chloride) Quats blended quats benefit from the increased surfactant and fragrance solubility with ADBACs, while exhibiting high germicidal performance, tolerance for protein loads and hard water. Maquat® Dialkyl Blend Quats are exempted from the requirement of a tolerance in food-contact surface sanitizing solutions at concentrations up to 240 ppm DDAC and 400 ppm of total quaternary active without a potable water rinse.</div>		
MQ 615M (EPA Reg.#10324-51) MQ 624M (EPA Reg.#10324-52)	40% n-Alkyl (50% C14, 40% C12, 10% C16) dimethylbenzyl ammonium chloride/ 60% Dioctyl, didecyl, octyldecyl dimethyl ammonium chlorides	BTC 885 BTC 888	Bardac 205M Bardac 208M	FMB 504 FMB 604-8
*2420-50 (EPA Reg.#10324-126) *2420-80 (EPA Reg.#10324-127)	40% n-Alkyl (50% C14, 40% C12, 10% C16) dimethylbenzyl ammonium chloride/ 60% Didecyl ammonium chloride			FMB 504 FMB 604-8
<div>ADBAC Quats</div> <div></div>		<div>ADBAC (Alkyl DimethylBenzyl Ammonium Chloride) Quats are generally referred to as First Generation or Single Chain Quats. The Maquat® ADBAC Series products provide a broad spectrum of bacteriological control at an economical price, and are exempted from the requirement of a tolerance in food-contact surface sanitizing solutions at concentrations up to 400 ppm of active quaternary compound without a potable water rinse.</div>		
*LC12S-50% (EPA Reg.#10324-3) *LC12S-80% (EPA Reg.#10324-129)	n-Alkyl (67% C12, 25% C14, 7% C16, 1% C18) dimethylbenzyl ammonium chloride	BTC 65	Bardac LB-50 BioQuat 50-65	FMB 504
*MC1412-50% (EPA Reg.#10324-6) *MC1412-80%E (EPA Reg.#10324-14)	n-Alkyl (50% C14, 40% C12, 10% C16) dimethylbenzyl ammonium chloride	BTC 835 BTC 8358	Barquat MB-50 Barquat MB-80 Hyamine 3500	FMB 451-5 FMB 451-8
*MC1416-50% (EPA Reg.#10324-8) *MC1416-80% (EPA Reg.#10324-9)	n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethylbenzyl ammonium chloride	BTC 824 BTC 8248	Barquat MX-50 Barquat MX-80	FMB 4500-5 FMB 4500-8

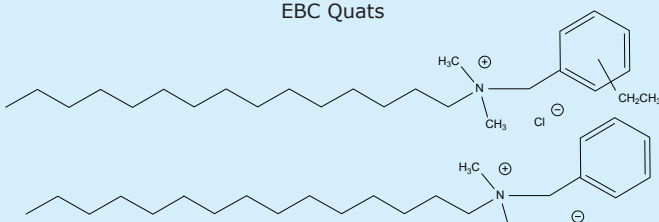
*Available in EU BPR grades for European formulations.

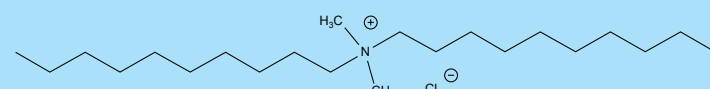
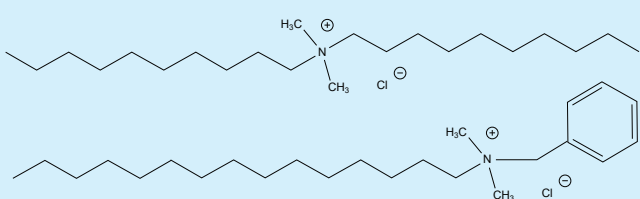
Nothing contained herein grants or extends a license, express or implied, in connection with patents, issued or pending, of the manufacturer or others. The information contained herein is based on the manufacturer's own study and the works of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness, or adequacy of the information contained herein. The manufacturer shall not be liable (regardless of fault) to the vendee's employees, or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of such information.

Maquat® EPA Registered Products

Pilot Chemical Company produces the highest quality and broadest range of EPA Registered Biocidal Quaternaries in the industry and continues to lead the industry with consistent high quality, product performance, and attentive customer service and support.



Maquat® Grade	Structure/Description	Cross Reference		
		Stepan EPA #1839	EPA#6836	Lonza EPA# 47371
MC5815 (EPA Reg.#10324-98)	n-Alkyl (58% C14, 28% C16, 14% C12) dimethylbenzyl ammonium chloride		BioQuat 50-28	
<p>EBC Quats</p> 		<p>EBC (Alkyl DimethylEthylbenzyl Ammonium Chloride) Quats (blended with ADBACs) are generally referred to as Second Generation or Dual Chain Quats, with the advantage of organic soil tolerance allowing for "one-step" cleaning and disinfecting. Mason® EBC quats are exempted from the requirement of a tolerance in food-contact surface sanitizing solutions at concentrations up to 200 ppm of active quaternary compound without a potable water rinse.</p>		
MQ2525-50% (EPA Reg.#10324-17)	50% n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethylbenzyl ammonium chloride/ 50% n-Alkyl (50% C12, 30% C14, 17% C16, 3% C18) dimethylethylbenzyl ammonium chloride	BTC 2125	Barquat 4250	FMB 6075-5
*MQ2525M-50% (EPA Reg.#10324-28) *MQ2525M-80% (EPA Reg.#10324-27)	50% n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethylbenzyl ammonium chloride/ 50% n-Alkyl (68% C12, 32% C14) dimethylethylbenzyl ammonium chloride	BTC 2125M BTC 2125M-80	Barquat 4250Z Barquat 4280Z	FMB 3328-5 FMB 3328-8

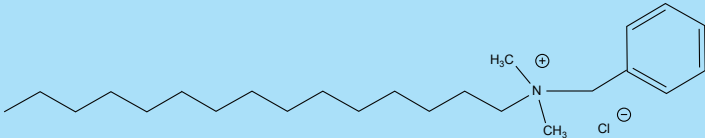
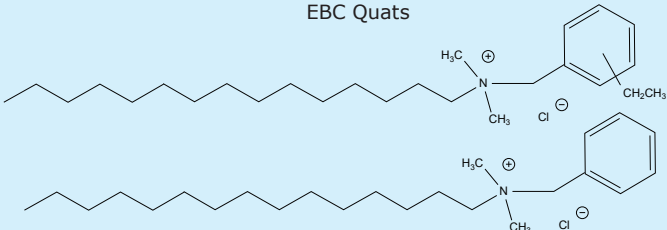
Maquat® Grade	Structure/Description	BioRenewable %
<p>Dialkyl Quats</p> 		
*40-50 (EPA Reg.#10324-31)	20% Dioctyl, 30% Didecyl, 50% Octyldecyl dimethyl ammonium chlorides	90
4450-E (EPA Reg.#10324-34) *4480-E (EPA Reg.#10324-35)	Didecyl ammonium chloride	91
<p>Dialkyl Blend Quats</p> 		

*Available in EU BPR grades for European formulations.



Maquat® EPA Registered Products

Pilot Chemical Company produces the highest quality and broadest range of EPA Registered Biocidal Quaternaries in the industry and continues to lead the industry with consistent high quality, product performance, and attentive customer service and support.

Maquat® Grade	Structure/Description	BioRenewable %
*MQ615M (EPA Reg.#10324-51) *MQ624M (EPA Reg.#10324-52)	40% n-Alkyl (50% C14, 40% C12, 10% C16) dimethylbenzyl ammonium chloride/ 60% Dioctyl, didecyl, octyldecyl dimethyl ammonium chlorides	78
*2420-50 (EPA Reg.#10324-126) *2420-80 (EPA Reg.#10324-127)	40% n-Alkyl (50% C14, 40% C12, 10% C16) dimethylbenzyl ammonium chloride/ 60% Didecyl ammonium chloride	79
<p style="text-align: center;">ADBAC Quats</p> 		
*LC12S-50% (EPA Reg.#10324-3) *LC12S-80% (EPA Reg.#10324-129)	n-Alkyl (67% C12, 25% C14, 7% C16, 1% C18) dimethylbenzyl ammonium chloride	59
*MC1412-50% (EPA Reg.#10324-6) *MC1412-80%E (EPA Reg.#10324-14)	n-Alkyl (50% C14, 40% C12, 10% C16) dimethylbenzyl ammonium chloride	60
*MC1416-50% (EPA Reg.#10324-8) *MC1416-80% (EPA Reg.#10324-9)	n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethylbenzyl ammonium chloride	62
MC5815 (EPA Reg.#10324-98) MC5815-80% (EPA Reg.#10324-89)	n-Alkyl (58% C14, 28% C16, 14% C12) dimethylbenzyl ammonium chloride	61
<p style="text-align: center;">EBC Quats</p> 		
MQ2525-50% (EPA Reg.#10324-17)	50% n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethylbenzyl ammonium chloride/ 50% n-Alkyl (50% C12, 30% C14, 17% C16, 3% C18) dimethylethylbenzyl ammonium chloride	58
*MQ2525M-50% (EPA Reg.#10324-28) *MQ2525M-80% (EPA Reg.#10324-27)	50% n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethylbenzyl ammonium chloride/ 50% n-Alkyl (68% C12, 32% C14) dimethylethylbenzyl ammonium chloride	58

*Available in EU BPR grades for European formulations.

Nothing contained herein grants or extends a license, express or implied, in connection with patents, issued or pending, of the manufacturer or others. The information contained herein is based on the manufacturer's own study and the works of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness, or adequacy of the information contained herein. The manufacturer shall not be liable (regardless of fault) to the vendee's employees, or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of such information.



Pilot Operations

Headquarters

9075 Centre Point Dr., Suite 400
West Chester, OH
Tel: (513) 326-0600
Fax: (513) 326-0601

LATAM Office

Paseo de las Palmas 735
908 Col. Lomas de Chapultepec
C.P. 11000 Ciudad de México
Tel: (+52) (55) 52 02 20 60

Research

Pilot Technology Center
Cincinnati, Ohio

Pilot Innovation Center
Pittsburgh, Pennsylvania

Manufacturing

Avenel, New Jersey
Municipio de Capulhuac, MX

Houston, Texas
Middletown, Ohio

Lockland, Ohio
New Waverly, Texas

For Information Please Call:

1-800-70-PILOT

Or Visit:

www.pilotchemical.com

