



### Representative Examples

Class	Structure	Spectrum Cat. No.	Product Description	Application	Advantages	Disadvantages	
<b>Parabens</b>		ME163	Methylparaben, NF	Topical, Oral	Highly effective against Gram+ bacteria and fungi across broad Ph range	Recent poor public acceptance due to cancer/tox potential incompatible with some surfactants and proteins	
		M1277	Methylparaben Sodium, NF				
		ET117	Ethylparaben, NF				
		PR133	Propylparaben, NF				
		P1457	Propylparaben Sodium, NF				
		BU115	Butylparaben, NF				
<b>Organic Acids &amp; Salts</b>		BE140	Benzoic Acid, Crystal, USP, EP, BP, JP	Injectable, Topical, Oral (gums & syrups)	Highly effective against Gram+ bacteria and Fungi	Highly Ph dependent; Incompatible w/ acrylates	
		SO120	Sodium Benzoate, NF				
		P1181	Potassium Benzoate, NF				
	CH <sub>3</sub> CH=CHCH=CHCO <sub>2</sub> H	SO215	Sorbic Acid, NF	Topical, oral; (Gums & syrups)	Highly effective against yeasts	Highly ph Dependent; Incompatible w/ Nylon	
<b>Quaternary Ammonium Compounds</b>	<p>n = 8, 10, 12, 14, 16, 18</p>	B1620	Benzalkonium Chloride, NF	Ophthalmic; surgical creams; ointments; injectable	Highly effective against Gram+ bacteria; surfactant properties	Incompatible with soaps and surfactants	
			BE129				Benzethonium Chloride, USP
<b>Alcohols</b>		BE158	Benzyl Alcohol, NF	Injectable, Topical, Oral	Broad Spectrum including, Acid-fast bacteria; wide applications coverage as group	Volatile; Poor penetration of organic matter; ineffective with spring-stage microbials	
		CH <sub>3</sub> CH <sub>2</sub> -OH	ET107				Dehydrated Alcohol, 200 proof, Undenatured, USP
		P1058	Phenylethyl Alcohol, USP	Ophthalmic, topical			
		CH <sub>3</sub> CC(CH <sub>3</sub> )(OH)CH <sub>3</sub>	CH123	Chlorobutanol, Anhydr., NF			Injectable; ophthalmic
		CH122	Chlorobutanol, Hydrous., NF				
<b>Organic Mercurials</b>		TH125	Thimerosal, USP	Injectable; ophthalmic	Broad Spectrum	Incompatible with some surfactants, acrylates, PE; toxicity	
			PH150				Phenylmercuric Acetate, NF
			PH155				Phenylmercuric Nitrate, NF

