

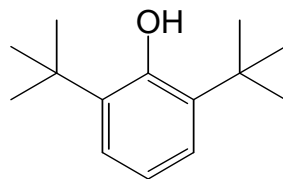
# Fuel Blenders Guide to Albemarle Antioxidants



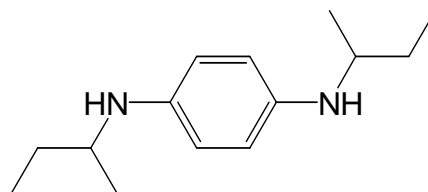
Military-Qualified Products and ASTM Approvals

Product Name	Description	Fuel Oils	Turbine Fuel (Aviation)												Gasoline (Aviation)			Electrical Insul. Oil	
		MIL-F-16884J	MIL-DTL-25524E	MIL-DTL-38219D	MIL-DTL-5624T	MIL-DTL-83133E	MIL-P-25576C	MIL-P-87107C	MIL-PRF-7024E	DEF STAN 91-91	DEF STAN 91-88 (DERD 2454)	DEF STAN 91-87	DEF STAN 91-86	ASTM D 6615	ASTM D 1655	DEF STAN 91-90 (DERD 2485)	ASTM D 910	ASTM D 6227	ASTM D 3487
<b>Phenolics</b>																			
Ethanox 4701	Hindered phenolic	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Ethanox 4733	Low melting Ethanox 4701	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	
Ethanox 4735	Low melting Ethanox 4701	x	x		x	x		x	x	x	x	x	x	x	x	x	x		
Ethanox 4701J	Ethanox 4701 dilution in toluene	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Ethanox 4737	Ethanox 4733 dilution in high flash solvent	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	
Ethanox 4745	Ethanox 4733 dilution in high flash solvent	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	
Ethanox 4775	Ethanox 4733 dilution in toluene	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	
Ethanox 4776	Ethanox 4733 dilution in toluene	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	
Ethanox 4778	Ethanox 4733 dilution in toluene	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	
Ethanox BHT	2,6-di-tert-butyl-4-methylphenol	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>Amines</b>																			
Ethanox 4720	Phenylenediamine						x											x	x
<b>Metal Chelators</b>																			
Ethanox 4705	N,N'-disalicylidene propylenediamine	x	x	x	x	x			x	x	x	x	x	x					x
<b>Antioxidant Blends</b>																			
Ethanox 4740	Ethanox 4733 / Ethanox 4720 blend																	x	x
Ethanox 4741	Ethanox 4733 / Ethanox 4720 blend																	x	x
Ethanox 4742	Ethanox 4733 / Ethanox 4720 blend																	x	x
Ethanox 4771	Ethanox 4733 / Ethanox 4705 blend	x	x	x	x	x			x	x	x	x	x	x					x
Ethanox 4772	Ethanox 4733 / Ethanox 4705 blend	x	x	x	x	x			x	x	x	x	x	x					x

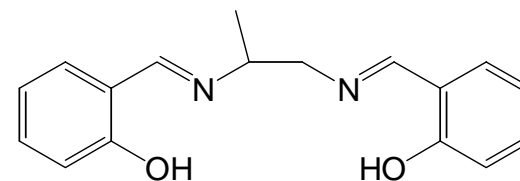
**Antioxidant Structures**



Ethanox 4701



Ethanox 4720



Ethanox 4705