

The history of Antiknock compound production between the wars

Year	Political Developments	Technical Developments	Production Developments
1932	<p>March UK Government cancels rule that no war is expected within 10 years.</p> <p>Chiefs of Staff (CoS) make recommendations to remedy worse deficiencies.</p>		
1932-1934	<p>Disarmament Conference Feb 1932 CoS no faith international agreements</p> <p>Oct 1933 Germany withdraws from conference and starts to re-arm illegally.</p> <p>Apr 1934: Conference winds up.</p>		
1934	<p>CoS warn s of dangers of Germany and japan re-arming.</p> <p>German Air Force reforms.</p> <p>Mussolini authorises Italy to manufacture lead Alkyls.</p> <p>Baldwin pledges UK parity with German Air Force.</p>		
1935	<p>Plans being drawn up by CoS for total war. UK Government no longer to rely on collective security.</p> <p>Baldwin and Churchill disagree on strength of German Air Force</p> <p>In the November General election government ask for mandate for re-armament. Chancellor estimates an extra £120m 35 -39</p> <p>German Air Ministry negotiates for AKC Plant. Construction begins.</p>	<p>Air Ministry approach Ethyl Export Corp about the possibility of providing AKC.</p> <p>Aug: Ethyl Export agree to supply France with AKC for aviation fuel.</p>	

1936	<p>British Rearmament begins. Estimates increased to £150m (20% of Germany level)</p> <p>RAF strategy based on bombers. RAF get only 50% of that spent on Army & less than 25% of Navy spend.</p>	<p>May: British Ethyl Corp incorporated to hold the technical information and to build an AKC plant.</p> <p>Aug: A team from ICI visit USA to obtain technical information about AKC manufacture.</p>	<p>Air Ministry specify a 2 Autocalve AKC Plant 1.1m lbs per year capacity.</p> <p>Apr: German AKC plant ready.</p>
1937	<p>Armament estimates increased by £1500m over years 1937 -1942</p> <p>Additional airplanes authorised.</p> <p>National Defence Contribution tax introduced.</p> <p>French Gov sanction AKC Plant</p>	<p>F.R. Banks (Ethyl Export) pleads for development of aero engines to take 100 Octane fuel</p>	<p>Bromine from brine Pilot Plant built and trails begin.</p> <p>Italian AKC plant ready by December</p>
1938	<p>Services freed from the restriction not to interfere with normal trade. Manufactures could be urged to produce more planes.</p> <p>Air ministry sanctions AKC plant in UK</p>	<p>May: ICI bromine team visit USA for technical information.</p> <p>90% US aviation fuel @100 Octane RAF fuel @87 Octane Spec DTD-230 100 octane fuel available by additional alkylation refining process.</p> <p>Oct: Ministry concerned about security of bromine production and in Dec begins a search for location of bromine plant.</p>	<p>Air Ministry specify a 4 Autocalve AKC Plant 3.3m lbs per year capacity.</p> <p>French AKC plant operational.</p>

1939	<p>Government authorises aircraft production "to the limit" of available resources.</p> <p>Aug: Air Ministry authorises building of UK AKC plants at Northwich and Hayle.</p>	<p>Stockpiling of 100 Octane fuel via alkylation begins.</p> <p>Jan: Ethyl Export & Dow (US) agreement on rights to sea-water Br extraction process.</p> <p>Apr Bromine team visit Dow to develop process operation and engineering plans.</p> <p>May -July Team visit US for training and operating experience in manf. of AKC</p>	<p>Air Ministry specify an 8 Autocalve AKC Plant 6.6m lbs per year capacity.</p> <p>Construction of French Bromine plant started.</p> <p>Sept: Construction of UK AKC plant at Northwich and bromine plant at Hayle started.</p>
1940		<p>Merlin aeroengine rating increased from 1000bhp to 1300bhp using 100 Octane fuel.</p> <p>100 Octane fuel available for Fighter Command</p>	<p>May: French Bromine Plant operating</p> <p>Aug: UK Bromine plant commissioned</p> <p>Sept: UK AKC Plant commissioned</p>
1941		<p>100 Octane fuel available for Bomber Command</p>	
Information provided by Arthur Fairhurst 2015			