



## Liquid Paraffins



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**Sasol Wax** paraffins are synthesized by the 'low temperature' Fischer- Tropsch (FT) process. This process produces synthetic linear paraffins spanning carbon numbers approximately C2 to C120. The liquid paraffins spanning carbon number C5- C22 are separated by distillation and hydrotreated to produce the highly pure liquid n- paraffins.

The paraffins (C<sub>x</sub>H<sub>y</sub>) are synthesized in the FT process from CO and H<sub>2</sub> (syngas). In the FT process one mole of CO reacts with two moles of H<sub>2</sub> to afford a hydrocarbon chain extension (- CH<sub>2</sub>-). The oxygen from the CO is released as product water:



The subsequent FT chain- growth process is comparable with a polymerisation process resulting in a normal distribution of chain- lengths of the products. The reaction affords mainly aliphatic straight- chain hydrocarbons (C<sub>x</sub>H<sub>y</sub>). The liquid paraffins spanning carbon number C5- C20 are separated by distillation and hydrotreated to produce the highly pure n- paraffins.

Because the production process is totally synthetic, unique normal alkanes having low aromatic contents, negligible sulfur levels and which are practically odourless and colourless, are produced. These unique properties enable us to offer a range of superior environmentally friendly products which sets them apart from the liquid paraffins derived from crude origin. Not only are the products clean and environmentally friendly, the production process is one which results in far less hazardous emissions and negative impact on the environment.