



# **MAK LLPO**

High Quality Light Liquid Paraffin Oil

MAK LLPO (Light Liquid Paraffin Oil) is a high purity white mineral oil manufactured from highly refined hydro-treated base oils. It is odorless and transparent in colour. The severe refinement process ensures absence of any significant sulfur, nitrogen, heavy metals, unsaturated substances and aromatics. The inert nature of the MAK LLPO offers properties such as good lubricity, smoothness and resistance to moisture in the formulations. This oil has excellent UV stability and is also free from fluorescence in daylight.

# Applications:

MAK LLPO is used for a wide variety of applications in various industries requiring clear white oils. They find application in personal care/cosmetic industries for hair oil, facial creams, hair creams, lotions, Incense & perfume manufacturing industries, plastic, paper, shoe polish, petroleum jelly manufacturing industries, Perfumery, Agrochemicals, Aerosols and pharmaceutical industries for ointments etc.

# Performance/ Benefits:

**Highly Saturated Composition** – very high saturates content and insignificant unsaturated and aromatics.

**High Transparency** – colourless and transparent oil free from fluorescence by daylight.

**No-Odor** – highly pure white mineral oil produces no odor.

**Low Cloud Point/ Pour Point –** excellent low temperature performance.

**Low Volatility** – high quality hydro treated base oil possesses low volatility and reduces oil consumption.

## Specification:

• IS 7299: 2017

## Approvals:

Meets **NSF H1** criteria to be accepted as a lubricant with incidental food contact for use in and around food processing areas.

## Storage & Handling:

The product should be stored inside. Keep it properly sealed to avoid contamination. Avoid freezing. Maximum shelf life is 3 yrs. under protected storage conditions.

#### Health & Safety:

It is unlikely to be hazardous when properly used in recommended applications. Contamination of the oil from other oils, greases, chemicals, dirty water etc. can occur during the use. It should be avoided. Regular monitoring of the in-use product is recommended.

Characteristics	Method	Requirements	Values
Appearance	Visual	-	Colorless
Density, @25 <sup>o</sup> C, g/cc	IS 1448 P:32	0.815 to 0.910	0.831
Kinematic Viscosity @37.8 <sup>o</sup> C, cSt	IS 1448 P:25	8 to 30	13.23
Cloud Point , <sup>o</sup> C	IS 1448 P:10	5 max	-3
Odor At Room Temperature	IS 7299 -1974	None	Nil
Odor When Heated at 95 to 98 °C for ½ hr in water bath	IS 7299 -1974	Not Objectionable	Nil
Free Acid and Alkali	IS 7299 -1974	To pass the test	Pass
Saponification value, mg KOH/g	IS 1448 P:55	Nil	Nil
Carbonizable Substances,%	IS 7299 -1974	To pass the test	Pass
Sulfur and Sulfides,%	IS 7299 -1974	To pass the test	Pass
Arsenic ( as As <sub>2</sub> O <sub>3</sub> ),ppm	IS 7299 -1974	2.0 max	<1
Ultra Violet Absorption Test, extinction, AU	IS 7299 -1974	0.1 max	0.059
Ash, % by mass	IS 1448 P:4	0.01 max	Nil
Lead, ppm	IS 7299 -1974	20 max	<1
Solubility in Chloroform		-	Soluble

#### **Typical Physico Chemical Data: MAK LLPO**

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