MAK HYDROL FG

Food grade hydraulic fluid for superior performance and protection

MAK Hydrol FG range is a group of premium quality anti-wear type of food grade hydraulic oils. They are blended from highly refined, high viscosity index base oils with carefully selected specialised performance additives. MAK Hydrol FG oils are NSF H1 registered for incidental food contact and to be used in food processing environment. These oils are designed to operate over a wide range of working conditions including low load and severe high load conditions. High rate of water separation, exceptional hydrolytic stability, anti-foam and cleanliness allow efficient operation of the system. They are formulated to offer excellent anti-wear properties improving the load carrying ability and extending the life of system components.

Grades: MAK Hydrol FG range is available in the following ISO VG grades – **46** and **68**

Applications:
MAK Hydrol FG range is recommended for hydraulic power systems and a wide variety of circulation systems of industrial equipment where incidental contact with edible products is possible. These can be used in Hydraulic systems in food, beverage, dairy, meat and poultry processing plants. They are suitable for precision hydraulic systems requiring very high control of fluid viscosity. MAK Hydrol FG fluids are compatible with seal materials and paints normally specified for use in hydraulic systems with mineral oils.

Performance/ Benefits:
Superior Oxidation Stability – outstanding resistance to the effects of oxidising agents. Resists sludge and deposit formation. Minimises filter choking and valve sticking. Longer operating life and reduction in operating cost.

Good Thermal Stability – provides good resistance to thermal break down to offer optimum life and performance even at elevated temperatures.

Antiwear Protection – excellent protection to the pump, valve and other system components. Operates on a wide range of load conditions.

Anti-foam property – allows precision control and high pump pressures.

Excellent Demulsibility – the rate of water separation from oil is very high. Increases system efficiency and reliability.

Rapid Air Release – ensures release of entrapped air from oil to offer superior performance of the control mechanism in the system.

Excellent Hydrolytic Stability – resists water absorption and the chemical decomposition of the oil in the presence of water. Protects from acid corrosion and allows longer oil life.

Rust and Corrosion – offers superior resistance to rust and corrosion. Provides cleanliness to the system.

Specification:
- Proprietary grade

Storage & Handling:
The product should be stored inside. Keep it properly sealed to avoid contamination. Avoid freezing. Shelf life is 5 yrs. under protected storage conditions.

Health & Safety:
They are 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.

NSF – NSF International, USA
H1 – Possibility of incidental food contact

Bharat Petroleum Corporation Ltd.
Product and Application Development Deptt.
BPCL, "A" Installation, Sewree Fort Road, Sewree (East),
Mumbai – 400015 E-mail: MAKcustomercare2@bharatpetroleum.in Tel No.: 022-24176351

Typical Physico-Chemical Data: MAK Hydrol FG

Characteristics	Method	46	68
Appearance	Visual	Clear	Clear
Density, g/cc @15OC	ASTM D1298	0.855	0.860
Kinematic Viscosity @40OC, cSt	ASTM D445	46.7	68.1
Kinematic Viscosity @100OC, cSt	ASTM D445	7.23	9.37
Viscosity Index	ASTM D2270	115	115
Flash Point, COC, OC	ASTM D92	226	238
Pour Point, OC	ASTM D97	-12	-12
Copper Corrosion, 100OC, 3 hrs.	ASTM D130	1a	1a
Foaming Characteristics/ Stability, ml Sequence I/ II/ III	ASTM D892	NIL	NIL
Demulsibility (ml-mins)	ASTM D1401	40-40-0 (15)	40-40-0 (20)