

# **MAK-CI4 PLUS**

### **Description**

MAK-Cl4 Plus is advanced diesel engine oil designed to meet the latest global specifications of the latest ultra low emission diesel engines. It is recommended for use in modern, high-output, low-emission engines including those fitted with Exhaust Gas Recirculation (EGR) device and protecting after treatment exhaust devices. It uses exclusive additive formulations in conjunction with highly Hydro processed Group II plus base oils to deliver longer life and enhanced protection relative to their predecessors.

### **Application**

Recommended for use in high performance diesel engines including the latest low emission engines fitted with EGR technology as well as Turbocharged / naturally aspirated diesel engines meeting Euro II & Euro III emission norms.

- Low sulfur diesel or conventional high sulfur diesel passenger cars
- On highway heavy duty trucks
- Construction and Mining
- Agricultural Equipments

It has been established to give oil drain period of 1, 00,000 Kms by having a healthy maintenance practices and proper filtration units like externally fitted centrifugal oil filter.

#### **Benefits**

- **UNIQUE FORMULATION:** Premium detergent and dispersant additive technology for cleaner engine.
- **ENHANCED ENGINE LIFE**: excellent protection against oxidation, rust, corrosion and better oil film protection at high temperature providing increased resistance to thermal breakdown.
- EXCELLENT OXIDATION STABILITY WHICH ENHANCES THE DRAIN INTERVAL EXCEPTIONALLY.
- LONG OIL SERVICE LIFE: Group II Plus base oil and latest generation dispersants used in this oil help in handling higher amount of soot and thereby controlling the viscosity increase.

#### PERFORMANCE LEVEL

- Exceeds API CI-4
- VOLVO VSS-3
- Global DHD-1
- Cummins 20078
- ACEA E7-04
- MB 228.3 & MAN M 3275



### **Technical Specifications**

| Characteristics                     | ASTM  | MAK CI4 PLUS<br>15W-40 |
|-------------------------------------|-------|------------------------|
| Appearance                          | -     | Clear & Bright         |
| Colour, Visual Observation          | 1     | Brown                  |
| Density @15°C, gm/ml                | D1298 | 0.8896                 |
| K.V at 100° C, cSt                  | D445  | 14.50                  |
| Copper Corrosion @ 100° C for 3 hrs | D130  | la                     |
| Flash Point, (COC), °C              | D92   | 232                    |
| Viscosity Index                     | D2270 | 147                    |
| Pour Point, °C                      | D97   | -24                    |

All the mentioned values are typical which may vary from batch to batch.

## **Storage and Handling**

- Indoor Storage is always preferable.
- Barrels should be kept horizontally with bung position at 3 O'clock 9 O'clock position.
- Barrels should be kept away from dusty or heated areas.
- During handling any contact with dust must be avoided.

### **Health & Safety**

This grade is not hazardous under normal conditions of use. For further guidance Material Safety Data Sheet (MSDS) may be referred.

#### Advice

For any further advice on applications or otherwise, please contact the nearest Bharat Petroleum territory office or Technical Services department at the address given below.

#### **Bharat Petroleum Corporation Ltd.**

Product and Application Development Dept.

BPCL 'A' Installation, Sewree Fort Road, Sewree (East)

Mumbai -400015

E-mail: MAKcustomercare2@bharatpetroleum.in

Tel No.: 022-24176351