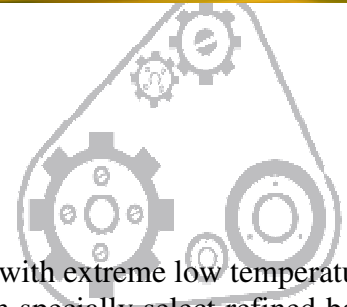




REFRIGERATION OIL
MOTOROL REFRIN 15/32/46/68



Introduction:

Motorol Refrin grades, which lubricates the compressors should also have properties to deal with extreme low temperature and to withstand exposure to active refrigerants. Motorol Refrin grades are formulated from specially select refined base stock. This oil possess high fluidity at very low temperature, resist deposit formation and reduces tendency to foam.

Applications:

MOTOROL Refrin grades are recommended for use in evaporation and compressor of refrigeration system using CFC, refrigerants like R12, R22, R22. Also suitable for both reciprocate and rotary compressors.

Advantages:

- ◆ Low pour point to prevent congealing
- ◆ Low cloud point to withstand extreme low temperature without flocculating wax.
- ◆ Good oxidation, thermal and chemical stability
- ◆ Ready solubility to dissolve liquefied refrigerant to prevent deposition.

Performance Standard:

Meets: IS 4578-1989

Typical Specifications:

| Sr. No. | Characteristics | Test Methods | 15* | 32 | 46 | 68 |
|---------|-----------------------------------|--------------|--------------|--------------|--------------|--------------|
| 1 | Appearance | Visual | Clear Liquid | Clear Liquid | Clear Liquid | Clear Liquid |
| 2 | Colour, Max | ASTM D 1500 | 0.5 | 0.5 | 1.0 | 1.0 |
| 3 | Kinematic Viscosity at 40 °C, cSt | ASTM D 445 | 10-17 | 28-35 | 41-50 | 61-75 |
| 4 | Flash point, °C Min | ASTM D 92 | 160 | 180 | 200 | 220 |
| 5 | Pour Point, °C Max | ASTM D 97 | -39 | -36 | -30 | -30 |
| 6 | Copper corrosion | ASTM D 130 | 1A | 1A | 1A | 1A |

Environment, Health & Safety:

Every care has been taken to ensure the accuracy of the information in this PDS. This however may be affected by subsequent improvement in product (R&D). MSDS is available for all MOTOROL products on request. MOTOROL products are unlikely to present any health and safety hazard with proper use for the correct application and maintain proper personal hygiene. Do not Spill oils on the shop floor, discharge into drains ,ground or water sources.