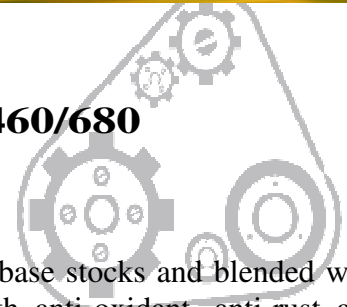




**ENCLOSED GEAR BOX OIL**  
**MOTOROL TOP GEAR EP 68/100/150/220/320/460/680**



**Introduction:**

MOTOROL Top Gear EP grades are of premium quality manufactured from high quality base stocks and blended with extreme pressure (EP) additives like sulphur and phosphorous and further fortified with anti-oxidant, anti-rust and anti-foam additives to possess excellent thermal and oxidation stability.

**Applications:**

MOTOROL Top Gear EP grades are recommended for all heavy duty enclosed gear drives with circulation or splash lubrication system operating under heavy and shock load condition up to 100 °C.

**Advantages:**

- ◆ Good boundary lubrication under sliding and rolling action of gears.
- ◆ High film strength.
- ◆ Low foaming tendency.
- ◆ Good EP properties.

**Performance Standard:**

Meets AGMA :250.04,ASLE:G -315,1000,1500,2150,US STEEL-222,224, IS:8406-1985,CINCINNATI MILACRON SPECIFICATION NO. P-63(VG68),P-77(VG 150),P-35(VG 460)

**Typical Specifications:**

Sr. No.	Characteristics	Test Methods	68	100	150	220	320	460	680
1	Appearance	Visual	Clear Liquid	Clear Liquid	Clear Liquid	Clear Liquid	Clear Liquid	Clear Liquid	Clear Liquid
2	Colour, Max	ASTM D 1500	4	4	4	4	4	5	5
3	Kinematic Viscosity at 40 °C ,cSt	ASTM D 445	61-75	90-110	135-165	198-242	288-352	414-506	612-748
4	Viscosity Index , Min	ASTM D 2270	90	90	90	90	90	90	90
5	Flash point, °C Min	ASTM D 92	210	210	220	230	240	250	250
6	Pour point, °C Max	ASTM D 97	-6	-6	-6	-3	-3	+3	+6

**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.