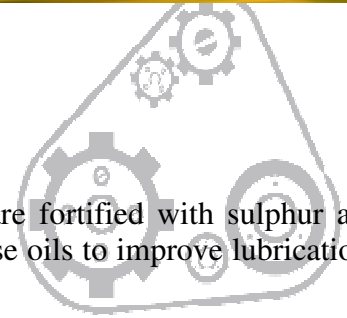




STRAIGHT CUTTING OIL
MOTOROL HICUT – 14/21/23/55



Introduction:

MOTOROL Hicut grades are a blend of refined mineral oils and additives. These oils are fortified with sulphur and chlorine to impart extreme pressure (EP) properties. High quality fatty oils are added to these oils to improve lubrications under boundary conditions and also to impart wetting characteristics.

Applications:

MOTOROL Hicut 14 is light coloured low viscosity oil recommended for use in machining all non ferrous metals except Titanium. These oils have good heat transfer properties to effectively cool under high speed condition.

MOTOROL Hicut 21 contain chlorinated EP and oiliness additives. This oil is recommended for machining operation in ferrous materials like mild steel, carbon steel, manganese steel, nickel, steel copper, aluminum and their alloys.

MOTOROL Hicut 23 has a distinct advantage of being equality suitable for cutting either steel as it contains additives, which imparts high oiliness as well as EP properties, mainly sulphur in inactive form. This oil gives good cooling, chip flushing and penetration and is suitable for high speed automatic machine tools. Also recommended for use in capstan and turret Lathe.

MOTOROL Hicut 55 is medium viscosity dark brown oil containing active sulphur and chlorinated compound additives, thus having staining type EP Additives. This oil is recommended for severe machining operation like broaching, gear cutting grinding and cutting.

Performance Standard:

Meets IS: 3065-1985 Type 2 grade III and U.K. Defence DEF STAN 91-26/issue 1 for Oil ZX-6 specifications.

Advantages:

- ◆ Good lubrication properties
- ◆ None staining except sulphurised grades
- ◆ Does not smoke in use
- ◆ Not harmful to the operators
- ◆ Increased tool life

Typical Specifications:

Sr. No.	Characteristics	Test Methods	14	21	23	55
1	Kinematic Viscosity at 40 °C, cSt	ASTM D 445	13-16	20-22	23-25	35-40
2	Flash Point, °C	ASTM D 92	130	150	170	190
2	EP Value Kgs (4 ball test), Min	ASTM D 2783	750	850	1000	850
3	Chlorine %	-	0	1	1.5	0
4	Fat %	-	16	16	15	30
5	Sulphur %	-	0.75	0.75	0.8	1

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.