



ADROL CUTTING OILS

SOLUBLE/NEAT/SEMI-SYNTHETIC

Soluble Cutting Oil ISO 68

DESCRIPTION

AdrolSoluble Cutting Oil is a general-purpose soluble cutting fluid. It is blended from good quality mineral base oil and good package of emulsifier and corrosion inhibitors. It forms milky white emulsion. The emulsion formed is homogenous and does not split during usage on routine machine shut-downs, under normal conditions.

APPLICATIONS

AdrolSoluble Cutting Oil is recommended for variety of cutting operations on ferrous and nonferrous metals. It gives extended tool life and finish in all cutting operations where cooling is more important than lubrication. Recommended dilution ranges are:-

- 1: 20 Milling, drilling, turning & sawing.
- 1:10 to 1:20 sawing, tapping & reaming.
- 1:40 Centre-less Surface grinding.

PERFORMANCE STANDARDS

- BIS 1115:1986

PERFORMANCE BENEFITS

- Highly stable emulsion Prolonged tool life, excellent surface finish, superior cooling and lubricating properties
- Excellent rust protection

KEY PROPERTIES

Appearance	Dark Brown Clear Liquid
Specific gravity@29.5°C	0.876
Kinematic Viscosity, @ 40°C cSt	28.17
Flash point (PMCC) °C	140
pH (5% Emulsion in D/W)	9.6
Corrosion Test (IP 125)	Passes
Cast Iron Corrosion 20:1 ratio emulsion With 400 ppm H/W	0/0-0
5% in Tap Water	Passes
5% in 400ppm Hard Water	Passes
Heat Stability Test (at 0°C & 50°C)	Passes

*Test results are based on samples.



ADROL CUTTING OIL

Neat Cutting Oil

DESCRIPTION

Adrol Neat Cutting Oil is staining type neat cutting oil manufactured from highly refined base stocks of medium viscosity and fatty oils for improved wetting characteristics to impart good heat dissipation characteristics and also with active sulphur and chlorinated additive to impart EP properties.

APPLICATIONS

ADROL NEAT CUTTING OIL is recommended for heavy duty applications like gear shaping, Threading, Turning, Punching, Milling, Surface broaching, Drilling, Gear chamfering, Line and fine boring and less severe machining operations on high tensile steel, stainless steel and some alloys.

PERFORMANCE BENEFITS

- Highly stable emulsion Prolonged tool life, excellent surface finish, superior cooling and lubricating properties
- Excellent rust protection

KEY PROPERTIES

CHARACTERISTICS	ADROL NEAT CUTTING OIL
Kinematic Viscosity at 40°C, cSt	32
Flash Point, COC, °C	160
Copper Strip Corrosion for 3 Hrs. at 100°C	4
Sap Value, mg KOH/gm	5

*Test results are based on samples.



ADROL CUTTING OIL

SEMI- SYNTHETIC CUTTING OIL

DESCRIPTION

AdrolSemi Synthetic Cutting Oil is a semi synthetic, environment friendly cutting fluid developed for use in light to heavy duty machining of ferrous & metal alloys. It is also suitable for general purpose grinding. It contains special lubricity & E.P additives and rust inhibitor, which protects ferrous components during machining operation. This product is specially designed to offer extended sump life with better tool life

APPLICATIONS

- Recommended for a wide range of metal working operations.
- Suitable for metal cutting & grinding of ferrous & its alloys
- Material Compatibility
 - ⇒ Cast Iron
 - ⇒ Ferrous Alloys
 - ⇒ Stainless Steels

PERFORMANCE BENEFITS

- Excellent cooling and lubricating properties
- Pleasant odour of the emulsions, user friendly
- High resistance to bacterial attack and hence reduced odour and higher coolant life.
- Stable emulsion even in hard water
- Offers excellent rust protection of ferrous components.
- Reduces machine down time
- Nitrite & Chlorine free hence environmentally safe



KEY PROPERTIES

CHARACTERISTICS	ADROL SEMI SYNTHRTIC CUTTING OIL
Appearance-Concentrate	Clear
Density @ 29.5 °C, gm/cc	0.978
Emulsion –Appearance	Translucent to off white with pleasant odour
Thermal Stability Test	Pass
Cast iron corrosion Test @ 3%, 200 ppm(IP 287)	No Rust
PH 5% dilution in Distilled water	9.4
Refractometer Reading multification Factor	1.35

*Test results are based on samples.

RECOMMENDED CONCENTRATION

APPLICATIONS	CONCENTRATION (%)
Grinding	2-3
General Machining	5-6
Lapping	6-8
Deep Hole Drilling & Boring	6-8
Reaming	8-10

MIXING INSTRUCTIONS

- ☐ While mixing always add oil to water and not the reverse.
- ☐ Use good quality water. D.I water gives extended sump life as Hardness and chlorides reduce the product life and corrosion inhibition properties.
- ☐ Use clean and sterilized sump before every fresh charge.

CONCENTRATION , %	4%	5%	6%	7&	8%	9%	10%
RATIO	1:2	1:20	1:17	1:14	1:12	1:11	1:10
REFRACTOMETER (+/-0.2)	2.8	3.4	4.2	4.8	5.5	6.1	6.8

Refractometer factor: 1.47 (Factor x Refractometer reading = Actual concentration)

