



# POWEROIL SYNTHCUT 25S SEMI SYNTHETIC CUTTING FLUID

**POWEROIL SYNTHCUT 25S** 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

CHARACTERISTICS	POWEROIL SYNTHCUT 25S			
Appearance-Concentrate	Clear Amber fluid			
Density @ 29.5 °C, gm/cc	0.978			
Emulsion – Appearance	Translucent to off white with pleasant odour			
Thermal Stability Test	Passes			
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			

The above properties are typical values and do not constitute specification of the product

### **APPLICATION:**

- 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

RECOMMENED CONCENTRATION				
Application	Concentration %			
Grinding	2 – 3			
General Machining	5 – 6			
Lapping	6 – 8			
Deep Hole Drilling & Boring	6 – 8			
Reaming	8 - 10			

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**Product Data Sheet** Version # 06 1<sup>sd</sup> October, 2020





#### **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

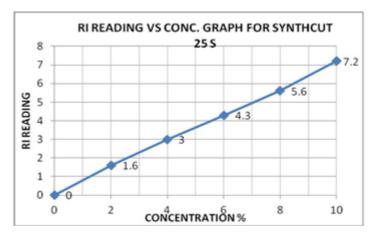
Refractometer factor : 1.47 (Factor x Refractometer reading = Actual concentration)

#### **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.

CONCENTRATIO N%	<b>RI READING</b>
0	0
2	1.6
4	3
6	4.3
8	5.6
10	7.2

## **ADDITIONAL INFORMATION:** CONCENTRATION MONITORING



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