

# Product Data Sheet

## SERVOCUT S

Water soluble Cutting oil



### Description

Servocut S is soluble type high quality cutting oil, which yields rich milky emulsion with water. Special emulsifier is incorporated to ensure its complete dispersion in water. The emulsion formed is homogeneous and stable in nature and does not split during usage or routine machine shut down periods, under normal conditions.

Servocut S contains rust inhibitors, which impart anti-rust and anti-corrosive properties to the emulsion. Carefully selected biocide is incorporated to prevent bacterial growth in the emulsion.

### Performance, Features and Benefits

- Has superior cooling and lubricating properties which contribute towards clean work, excellent surface finish and minimum tool wear.
- When used as a grinding coolant, contribute towards long grinding wheel life and minimized wheel loading.
- Provides long lasting stable emulsions
- Protects work-piece, machine components and tool materials from rust and corrosion.
- Enables to obtain superior finish and accurate tolerances to the parts machined.

### Application

Servocut S is recommended for variety of cutting operations on ferrous and non-ferrous metals. The oil is especially suitable for metal working operations where the cooling property is more desirable compared to the lubricating characteristics.

To obtain stable emulsion, oil should be added to water and not vice versa. A homogeneous dispersion of oil in water can be obtained by continuous stirring either manually or mechanically while preparing the emulsion.

Servocut S is normally used at concentration of 5% for most of the machining operations. For grinding operations more dilute emulsions are preferred.

### Approvals / Performance Standards / Recommendations

Servocut S meets IS: 1115-1986 specifications (Reaffirmed 2018).

### Typical Physical Characteristics

	Method	Servocut S
Appearance at 30 °C	Visual	Clear homogeneous liquid
Density at 29.5 °C, g/ml	ASTM D-4052	0.875
Kinematic viscosity at 40°C, cS t	ASTM D-445	20 - 40
Flash point COC , °C	ASTM D-92	180
Copper strip corrosion at 100°C for 3hrs	ASTM D-130	1
pH value of 5 %vol oil in dist. Water	pH Meter	9.3
Emulsion test at 20:1 and 5:1 in water of 400 ppm hardness as CaCO <sub>3</sub> Oil / Cream, ml.	P: 98	Nil/Nil
Cast Iron Corrosion test in 20:1 ratio in water of 400 ppm hardness as CaCO <sub>3</sub>	IS: 1115-86 App. A	0/0-0
Frothing test at 5:1 and 20:1 in water of 200 ppm hardness as CaCO <sub>3</sub>	P: 99	Passes

### Health, Safety & Environment

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office, or at <https://cx.indianoil.in/>. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

02 Jan 2020

All trademarks used herein are trademarks or registered trademarks of Indian Oil Corporation or one of its subsidiaries unless indicated otherwise. Values reported are typical of those obtained with normal production tolerance, and may vary from batch to batch. Due to continual product research and development, the information contained herein is subject to changes without notification. Material Safety Data Sheets are available for all our products and should be consulted for appropriate information regarding storage, safe handling, and disposal of the product. All products, services and information supplied are provided under our standard conditions of sale.

For further information, please contact our nearest office or:

Technical Services Department,  
Indian Oil Corporation Ltd.,  
G-9, Ali Yavar Jung Marg, Bandra (E),  
Mumbai – 400051

E-Mail: [servotechserv@indianoil.in](mailto:servotechserv@indianoil.in) or  
[servots@indianoil.in](mailto:servots@indianoil.in) | <https://cx.indianoil.in/>