



Product Data

## CareCut ES 1

High performance neat cutting oil

### Description

Castrol CareCut™ ES 1 is a chlorine and heavy metal free neat cutting oil, based on advanced biodegradable ester technology. It is especially formulated with a combination of anti-wear additives and boundary lubricants to help optimise machining performance, enhance surface finish and lower the overall operating costs.

It can be used in single sump machines and large central systems.

### Application

CareCut ES 1 is especially designed for several machining applications including general machining, broaching and gear manufacture of ferrous and non ferrous metals.

CareCut ES 1 does not contain active sulphur and is hence compatible with yellow metals.

ü ü suggested core application ü possible application, please consult Castrol representative prior to use

	Cast Iron	Honing / Super finishing	High alloyed steel /stainless steel	Titanium alloys	Aluminium alloys	Yellow Metals
Honing / Super finishing						
Grinding						
Drilling						
Broaching / Gear Manufacture	ü ü	ü ü	ü		ü ü	ü ü
General Machining	ü ü	ü ü	ü ü	ü	ü ü	ü ü

### Advantages

- Low oil mist and foam characteristics, even at high pressures and flow rates, leads to a reduction in oil consumption and increased production rates.
- Excellent flushing and lubrication properties extend tool life and enable high surface finish and dimensional accuracy.
- Good filtering characteristics and high oxidation stability help increase product lifetime.
- Our chlorine, mineral oil and heavy metal free formulation, based on advanced biodegradable ester technology improves the environmental profile and can help reduce disposal costs.
- High flashpoint, low odour, light colour and low mist qualities improve the work environment.
- Multi-metal machining using our superior additive technology provides opportunity for product consolidation.

## Typical Characteristics

Name	Method	Units	CareCut ES 1
Appearance	Visual	-	Clear Yellow Liquid
Viscosity at 40°C	DIN EN ISO 3104	mm <sup>2</sup> /s	28
Viscosity at 100°F	ASTM D 445	SUS	117
Density at 15°C	DIN 51757, ASTM D 1298	kg/m <sup>3</sup>	937
	Calculated	lbs/gal	7.80
Flash Point, COC	DIN 51376	°C	> 250
	ASTM D 92	°F	> 482
Copper Corrosion, 3 hr at 100°C	DIN 51811, ASTM D 130	-	1b

Subject to usual manufacturing tolerances.

## Additional Information

	Ester	Active sulphur	Inactive sulphur	Phosphorous	Calcium	Chlorine	Zinc
Additives	ü		ü	ü			

## Storage

To avoid product deterioration always keep the container/drum tightly sealed. Store the product in a cool, dry place away from direct sunlight. Prevent exposure to frost and avoid water ingress. For optimum product stability, it is preferable to store the product indoors between 5°C and 45 °C / 41°F and 113°F.

For more details, please refer the product safety data sheet.

CareCut ES 1  
14 Mar 2019  
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