

## 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 unique combination of anti-wear additives and boundary lubricants to 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.

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

√√√ core application

√√ recommended application

√ suggested application, please consult Castrol representative

### 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

## Additional Information

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

## Storage

All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing condition.

CareCut ES 1

22 Mar 2016

Castrol, the Castrol logo and related marks are trademarks of Castrol Limited, used under licence.

This data sheet and the information it contains is believed to be accurate as of the date of printing. However, no warranty or representation, express or implied, is made as to its accuracy or completeness. Data provided is based on standard tests under laboratory conditions and is given as a guide only. Users are advised to ensure that they refer to the latest version of this data sheet. It is the responsibility of the user to evaluate and use products safely, to assess suitability for the intended application and to comply with all applicable laws and regulations. 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. No responsibility is taken by either BP plc or its subsidiaries for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from hazards inherent in the nature of the material. All products, services and information supplied are provided under our standard conditions of sale. You should consult our local representative if you require any further information.

10 Junction Avenue , Parktown , Johannesburg , 2193 , South Africa

+27 11 488 5111, 0860 222 166 (SA), 0800 111 551 (SA)

www.castrol.co.za