



Castrol CareCut ES 3

High performance neat cutting oil

Description

Castrol CareCut™ ES 3 is low viscosity, chlorine and heavy metal free neat cutting oil based on advanced biodegradable ester technology. It is especially formulated with superior ashless boundary lubrication additives 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 3 is designed for severe honing and superfinishing of ferrous and non ferrous materials. It can also be used for grinding applications, drilling and general machining of aluminium, yellow metals, cast iron and medium alloyed steel. CareCut ES 3 can also be used for hard metal as well as tool grinding.

CareCut ES 3 does not contain active sulphur and is hence compatible with yellow metals.

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

√√√ core application representative

√√ recommended application

√ suggested application, please consult Castrol

Advantages

- Excellent flushing and lubrication properties extend honing stone life and enable high surface finish and dimensional accuracy.
- Low viscosity and excellent wetting properties reduce drag out and results in lower product usage.
- 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 odor, light color 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 3
Appearance	Visual	-	Clear Yellow Liquid
Viscosity at 40°C	DIN EN ISO 3104	mm ² /s	5.5
Viscosity at 100°F	ASTM D 445	SUS	46
Density at 15°C	DIN 51757 ASTM D 1298	kg/m ³	864
	Calculated	lbs/gal	7.19
Flash Point ,COC	DIN 51376	°C	>160
	ASTM D 92	°F	> 320
Copper Corrosion, 3hr at 100°C	DIN 51811 ASTM D 130	-	1b

Additional Information

	Ester	Active sulphur	Inactive sulphur	Phosphorous	Calcium	Chlorine	Zinc
Additives	√						

Castrol CareCut ES 3

31 Jan 2012

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.

Castrol Industrial, Technology Centre , Whitchurch Hill , Pangbourne , Reading , RG8 7QR , United Kingdom

www.castrol.com/industrial