



CareCut ES 2

High performance neat cutting oil

Description

Castrol CareCut™ ES 2 is chlorine and heavy metal free neat cutting oil based on advanced biodegradable ester technology. It is especially formulated with a unique combination of sulphur and phosphorus based anti-wear 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 2 is designed for high speed, creep feed and gear grinding of ferrous and non ferrous metals. It can also be used for drilling and general machining applications, as well as for hard metal and tool grinding.

CareCut ES 2 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 √√ 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 grinding wheel 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 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 2
Appearance	Visual	-	Clear Colourless Liquid
Viscosity at 40°C	DIN EN ISO 3104	mm ² /s	8.8
Viscosity at 100°F	ASTM D 445	SUS	57
Density at 15°C	DIN 51757, ASTM D 1298	kg/m ³	868
	Calculated	lbs/gal	7.24
Flash Point, COC	DIN 51376	°C	> 200
	ASTM D 92	°F	> 390
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	√		√	√			

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