



CareCut™ ES 1

High Performance Cutting Oil

Description

Castrol CareCut™ ES 1 (previously called Carecut ES 1 NA) is a chlorine and heavy metal free neat cutting oil, based on advanced biodegradable ester technology. It is 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 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 ² /s	25 - 30
Density at 15°C	CN-TM-084	g/cm ³	0.925 - 0.930
Flash Point, PMCC	CN-TM-037	°C	> 250
Copper Corrosion, 3 hr at 100°C	CN-TM-020	-	1b

Additional Information

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

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Castrol Industrial, North America Inc., 150 West Warrenville Road, 603 1E Naperville, IL 60563

Tel: (877) 641 1600 Fax: (877) 648 9801

www.castrol.com/industrial