



## Product Data

# Castrol 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.

## Application

CareCut ES 1 is designed for severe general machining, broaching and gear manufacturing of ferrous and non-ferrous metals.

	Cast Iron	Low-medium alloyed steel	High alloyed steel /nickel-chromium alloys	Titanium alloys	Aluminium alloys	Yellow metals
Honing/Superfinishing	-	-	-	-	-	-
Grinding	-	-	-	-	-	-
Drilling	-	-	-	-	-	-
Broaching/Gear manufacturing	✓	✓	-	✓	✓	✓
General machining	✓	✓	✓	✓	✓	✓

## 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 increases product lifetime
- Our chlorine, mineral oil and heavy metal free formulation, based on advanced biodegradable ester technology improves the environmental profile and reduces disposal costs
- High flashpoint, low odour, light colour and low mist qualities improves the work environment
- Multi-metal machining using our superior additive technology provides opportunity for product consolidation

## Typical Characteristics

Properties	Standard	Unit	Data
Appearance	Visual	Visual	Yellow
Viscosity @ 40°C	DIN 51562	mm <sup>2</sup> /s	28
Viscosity@ 100°F	ASTM D 446	SUS	177
Density @ 15°C	DIN 51757 ASTM D 1298	kg/m <sup>3</sup>	936
	Calculated	lbs/gal	7.81
Flashpoint COC	ISO 2592	°C	> 270
	ASTM D 92	°F	> 515
Copper corrosion	ISO 2160	3 hr at 100°C	1b
	ASTM D 130		

	ester	active sulphur	inactive sulphur	phosphorous	calcium	chlorine	zinc
Additives	+	-	+	+	-	-	-

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