



CareCut SM 452

High performance soluble metalworking fluid

Description

Castrol CareCut™ SM 452 is the ester oil phase of the innovative multi-pack metalworking fluid system. It combines the effectiveness of advanced metalworking fluid performance with the efficiency to manage fluid systems for maximum sump life. CareCut SM 452 is the ester oil phase containing advanced lubricity components to ensure improved tool life and part quality. It is used in conjunction with Castrol Boost WP Series which are the available water phases containing fluid management components to ensure bacteria control, pH stability and corrosion protection.

The multi-pack technology allows for variable concentrations of each phase depending on severity of operation. In addition, lower fluid make-up costs are achieved as only depleted components are added back to the metalworking fluid system.

Application

CareCut SM 452 is a multi-pack ester oil based product for machining of steel and aluminium alloys. It should be used only in combination with Castrol Boost WP Series.

	Cast Iron	Low-medium alloyed steel	High alloyed - stainless steel	Aluminium alloys	Magnesium alloys	Yellow metals
Grinding	◦	◦◦	◦◦	◦◦		◦
Milling, Turning (general machining)	◦	◦◦◦	◦◦◦	◦◦◦		◦
Drilling	◦	◦◦◦	◦◦◦	◦◦◦		◦
Reaming, Tapping	◦	◦◦◦	◦◦◦	◦◦◦		◦
Broaching	◦	◦		◦◦◦		

- core application
- recommended application
- suggested application, please consult Castrol representative

Advantages

- Chlorine and nitrite free to fulfill your local legislation, waste treatment and environmental requirements.
- Improved environmental compliance with the use of ester oil technology.
- Advanced lubrication to extend tool life and improve part finish.
- Versatile fluid suitable for a wide range of applications on multiple metals.
- Excellent stability in hard water conditions.
- Excellent foam control.
- Developed specifically for Castrol Carelube lubrication technology.

Typical Characteristics

	Test Method	Unit	Value
Concentrate			
Appearance	Visual		Yellow
Mineral oil content	Calculated	Wt%	0
Emulsion			
Appearance	Visual		Milky
pH (5%) + Boost WP (2%)	DIN 51369 ASTM E70-97		9,0
Refractometer Factor			n.a. (2 phase product)

Recommended Concentrations

Cast iron	1 – 3% Carecut SM 451	1.5 – 2% Boost WP
Aluminum	4 – 8% Carecut SM 451	1 – 1.5% Boost WP
Grinding	1 – 2% Carecut SM 451	1.5 – 2% Boost WP

Water range 50-600 ppm CaCO₃

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.

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