

METAL REMOVAL FLUIDS

QUAKERCOOL® 3502 METALWORKING WATER SOLUBLE COOLANT SEMI-SYNTHETIC TYPE

APPLICATION SHEET

BENEFITS

- » Formaldehyde free
- » Excellent foam properties
- » Provides good cleanliness on tools/machines and detergency characteristics
- » Improve surface finish of grinded surfaces
- » Good bio-resistance
- » Good corrosion protection when using the recommended concentration

APPLICATIONS

Low oil containing machining and grinding fluid suitable for machining operations on most engineering materials. This technology combines the cleanliness and detergency of a synthetic product with the unique properties of oil containing emulsions.

Recommended for general machining and grinding operations on steel and cast iron.

Concentration range:
4 - 8 % depending on type of operation

Make up water hardness:
50 - 200 ppm (5 - 20 °TH, 2 - 11 °DH)

FLUID MAINTENANCE

Poor or incorrect emulsion preparation may lead to instability and could considerably shorten the life of the emulsion. Prior to making any fresh fill, we highly recommend full cleaning including the use of a compatible systems cleaner of all system components which will be in contact with the emulsion. A wide range of system cleaners* and disinfecting additives* are available from Quaker.

*Please consult a Quaker representative for any additional information.



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STORAGE/PACKAGING

Quaker Chemical can supply this quality product in drums, in containers and in bulk. Other packages can be made available by Quaker Chemical or by distributors upon request.

As with all metalworking products, QUAKERCOOL® 3502 should be stored in dry conditions and protected from extreme temperatures: 4 - 40 °C is the recommended storage temperature.

QUAKERCOOL® 3502 is unlikely to present any significant health or safety hazard when used as recommended by Quaker. Good standards of personal and industrial hygiene are to be maintained by the user (see Material Safety Data Sheets).

OPERATIONS

Turning	●
Milling	●
Drilling	●
Deep hole drilling	
Tapping-Threading	○
Reaming	
Broaching	
Sawing	
Grinding	●
Honing-Lapping	

MATERIALS

Cast-iron	●
Steel	●
High alloy steel	○
Stainless steel	
Aluminium alloys	
Aero Aluminium alloys	
Copper alloys	
Titanium	
Carbide tool	

● Main application ○ Possible application

PROPERTIES

PROPERTY	TYPICAL VALUE	UNIT
Appearance / Colour	Clear Light Amber	[-]
Viscosity	4	[mm²/s]
Density	1044	[kg/m³]
Pour point	>4	[° C]
Appearance diluted	Transparent	[-]
pH diluted	9.6	[-]
Corrosion threshold	4	[% DIN 51360 T2]
Alkalinity factor (pH=5)	3.6	[ml 0,1N/%/ 25 ml]
Acid split factor	0.20	[ml/%]
Refractometer factor	2.4	[%/° Brix]

These characteristics are typical of current production and can't be used as a specification.

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Prior to using this product, consult the Material Safety Data Sheet for instructions regarding safe handling and environmental issues.

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