

# QUAKERCOOL 3502

## DESCRIPTION, OPERATION & MATERIALS

**QUAKERCOOL 3502** is a low oil containing semi-synthetic machining and grinding fluid forming transparent emulsions which may become semi-translucent in hard water.

**QUAKERCOOL 3502** combines the cleanliness and detergency of synthetic products with the desirable properties of oil containing water solubles.

In common with the rest of Quaker's biostatic cutting fluid series, the **QUAKERCOOL 3502** emulsion can readily be split with conventional effluent treatment techniques, thus minimising disposal costs.

- All machining operations on steel and cast-iron (as indicated below).
- Concentration range: 4-10 %, depending on the difficulty of the operation.
- Waterhardness: 50-260 ppm (5-26° TH, 3-15° dH).

## APPLICATIONS

	Turning	Drilling milling	Sawing	Grinding	Honing	Lapping	Threading	Deepholedrilling	Broaching
Steel	●	●		●			●		●
Stainless steel				●					●
High alloy steel	●	●		●			●		
Titanium									
Carbide									
Cast iron	●	●	●	●	●	●	●	●	●
Copper alloys									
Aluminium alloys < 7% Si									
Aluminium alloys > 7% Si									
Plastic	●	●		●			●	●	

The above information should only be used as a guide. In order to check the suitability for your particular application please consult a Quaker representative. The product should be used at a minimum of 4.0%.

## BENEFITS

- Ensures a good surface finish without leaving residues, especially when used for grinding.
- Excellent bio-resistance.
- Pleasant odour.
- Good trampoil rejection.
- Excellent foaming properties.
- Keeps grinding wheels clear.

## TYPICAL PROPERTIES - CONCENTRATE

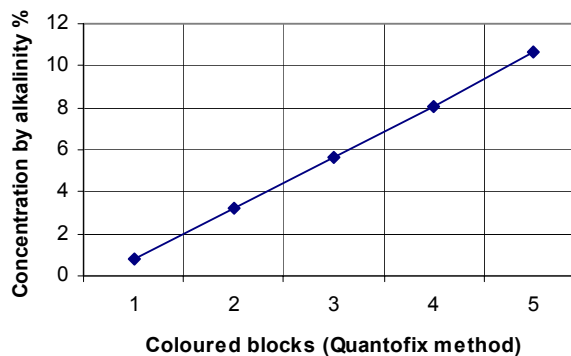
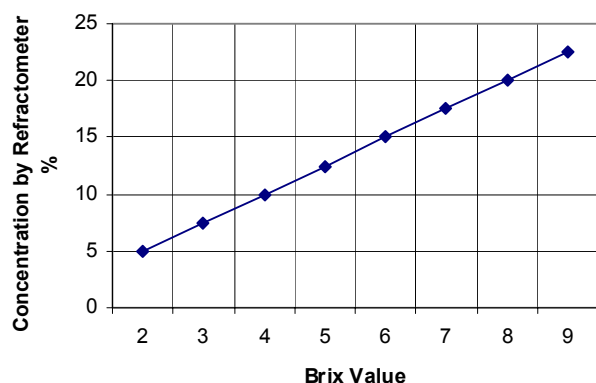
<i>Property</i>	<i>Typical Value</i>	<i>Unit</i>
Appearance	Light amber	[-]
Kinematic viscosity	3.2	[mm <sup>2</sup> /s, 40° C]
Density	1,048	[kg/m <sup>3</sup> , 15° C]

Pour point	<4	[° C]
Mineral oil / Ester content	10 / 0	[% wt]

## TYPICAL PROPERTIES - DILUTION

<i>Property</i>	<i>Typical Value</i>	<i>Unit</i>
Appearance	Transparent	[-]
pH (5% in DIN water)	9.5	[-]
Corrosion threshold	4.0	[% , DIN 51360 T2]
Alkalinity	4.2	[ml 0.1 N HCl/%/25 ml]
Acid split	0.20	[ml/%]
Refractometer	2.5	[%/° Brix]

## FLUID MAINTENANCE



## STORAGE, SAFETY & DISPOSAL

Quaker Chemical can supply this quality product in drums, in containers and in bulk. The drum is our standard package. 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: 4-35° C is the recommended storage temperature.

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

In order to protect the environment, the product used should be safely disposed by a licensed contractor. The packaging material should be handled by a recognised drum reconditioning firm.

Prior to using this product, consult the Material Safety Data Sheet for instructions regarding safe handling and environmental issues. The information contained herein is based on data available to us and is believed to be accurate. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY USE, OR ANY OTHER WARRANTY IS EXPRESSED OR TO BE IMPLIED, REGARDING THE ACCURACY OF THESE DATA. THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, OR THE HAZARDS CONNECTED WITH THE USE OF THE PRODUCT. Quaker Chemical Corporation assumes no liability for any alleged ineffectiveness of the product or any injury or damage, direct or consequential, resulting from the use of this product unless such injury or damage is solely attributable to negligence on the part of Quaker Chemical Corporation.