

Trent Cool 4534

Water Soluble Boron & Formaldehyde Free Metalworking Fluid

Description

Trent Cool 4534 is a low oil containing water-soluble metal working fluid. The technology used in this product combines the cleanliness and detergency of a synthetic product whilst also capturing the unique properties of an oil containing emulsion.

Trent Cool 4534 is manufactured using the very latest Boron and Formaldehyde free technology to meet with recent and future legislation regarding the use of biocides.

Application

Trent Cool 4534 is recommended for general machining and grinding operations when machining steel and cast iron and offers unrivalled cutting performance in these manufacturing applications. Trent Cool 4534 is inherently suitable for application where water hardness ranges from 50-340ppm (5-34°TH, 2-19°dH).

Benefits

- Chlorine free
- Formaldehyde free
- Boron free
- Low foaming tendency
- Excellent detergency characteristics.
- Provides good cleanliness on tools and machines.
- Improves surface finish of grinded surfaces.
- Good bio-resistance.

Typical Inspection Data

Properties	Unit	Inspection Data
Appearance/ Colour	-	Clear Yellow
Viscosity at 40°C	mm ² /s	5
Density at 15°C	Kg/m ³	1018
Pour Point	°C	<0
Appearance diluted		Transparent
pH Diluted		9.6
Corrosion Threshold	% DIN 51360 T2	5
Alkalinity factor (pH=5)	ml 0,1N%/25ml	2.6
Acid split factor	ml/%	0,13
Refractometer Factor	%/ Brix	2.3

Concentration Range

4-10% depending on type of operation.

Mixing

Use coolant mixing valves where possible. When mixing by hand slowly add concentrate to water whilst stirring vigorously. Coolants should not be mixed in the machine sump and avoid using chilled water.

Top Up

Coolant concentration may increase in use due to water evaporation. To maintain the recommended concentration, top up should be made with a more dilute concentration and not by water alone.



Trent Oil (Lubricants) Limited,

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Tel: 01159 279 166, Fax: 0115 9279 982

technical data

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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

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 would highly recommend full cleaning including the use of a compatible system cleaner.

Water Quality

Coolant performance can be affected by extremes of water quality. Hard water (in excess of 300 ppm CaCO₃) and high levels of chlorides and sulphates can reduce the stability of emulsions and reduce corrosion protection. Please contact your Trent Lubricants area manager and they will gladly advise on local water quality.

Contamination

Where possible avoid contamination from foreign matter and other fluids. Remove swarf and tramp oil from the machine sumps frequently.

Disposal

Discarded metal working coolants may be removed by a competent waste contractor. Alternatively, the product may be treated by conventional oil separation and effluent disposal methods. Specific advice is available on request. Product concentrate or diluted fluid should not be introduced into waterways. It is advisable to consult the Local Water Authority regarding disposal.

Storage

Metal working coolants should be stored indoors in clean, dry conditions. Protect from frost as the recommended storage temperature with all metal working products is between 4°C and 35°C. A shelf life of six months can be anticipated.

Health and Safety

Please refer to the relevant Trent Safety Data Sheet.

January 2019

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. Trent Oil Lubricants Ltd. 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 Trent Oil Lubricants Ltd.



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