



# **M i c r o S o l <sup>®</sup> 5 1 5**

*Cutting and Grinding Fluid Concentrate*

## **GENERAL DESCRIPTION**

TRIM<sup>®</sup> MicroSol<sup>®</sup> 515 is a medium to high lubrication, semi-synthetic microemulsion coolant. It provides excellent cooling and mechanical lubricity, along with the machine friendly characteristics you would expect from a premium TRIM<sup>®</sup> coolant. While it is particularly well suited for machining and grinding cast iron it does very well in mixed metal situations and is a proven performer when machining aluminium, inconel and titanium alloys.

## **ADVANTAGES**

- Medium to high levels of lubrication without chlorinated or sulphurised EP additives.
- Compatible with aluminium, all steels, yellow metals and cast iron.
- Extremely hard water tolerant.
- Alternative to emulsion products for machining of high silica aluminium alloys.
- Fine soluble oil emulsion reduces carry-off for low total operating cost.
- Fast wetting to get the fluid to the point of cut and fully coat the work piece and chips for superior corrosion prevention.
- No aggressive biocides.
- Easily recycled or disposed of without special handling or equipment.
- Contains no DEA, chlorine, sulphur, nitrites, formaldehyde donors, or phenolic compounds.

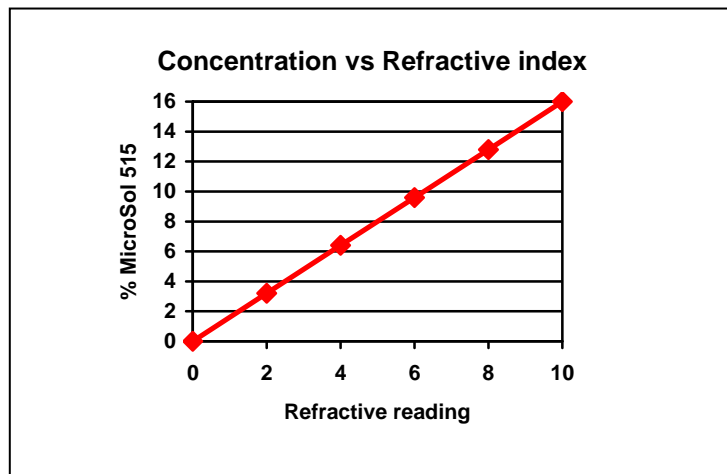
## **APPLICATION GUIDELINES**

- TRIM<sup>®</sup> MicroSol<sup>®</sup> 515 will run effectively for long periods without the need for costly additives.
- It can run at lower concentrations for higher speed operations (where heat removal is the key issue).
- Higher concentrations are recommended on soft, gummy materials and for lower speed operations where friction reduction and control of built-up edge are critical.
- Concentrations above 7% provide the best sump life.
- For additional applications information, please contact your Master Chemical Authorized Distributor, your District Manager or visit our website at [www.masterchemical.com](http://www.masterchemical.com).

## **PHYSICAL PROPERTIES (TYPICAL DATA)**

Form.....	Liquid	Flash Point (concentrate).....	none to boiling
Colour (concentrate).....	Yellow	pH typical operating range.....	9.0 – 9.5
Odour.....	Mild Amine	Specific Gravity.....	0.99
Refractometer Factor.....	1.6		





% Concentration = Refractive Reading x Refractive Factor  
Refractive Factor = 1.6

### RECOMMENDED METALWORKING CONCENTRATIONS

Light-duty machining and grinding .....5-7%  
Moderate-duty machining.....7-10%

### MIXING INSTRUCTIONS

- Using DI or mineral-free water will improve sump life, reduce concentrate usage, reduce carry-off, and improve corrosion inhibition. As a general rule, this product should not be mixed with water harder than 500 mg/l (CaCO<sub>3</sub>).
- Semi-synthetic products such as TRIM® MicroSol® 515 work best if mixed with room temperature water. Add the coolant concentrate to the water; NEVER THE REVERSE.
- Using premixed coolant as makeup will improve performance and reduce coolant purchases. The makeup concentration you select should balance the water evaporation rate with the coolant carryout rate. (Adding makeup coolant at 30%-40% of the desired working concentration will generally maintain the proper concentration in the sump.)

### HEALTH & SAFETY

For further information, see the most recent MSDS, which is available directly from Master Chemical Europe, your Master Chemical Authorized Distributor, or may be printed from our website at [www.masterchemical.com](http://www.masterchemical.com).

### NOTES

- Use TRIM® Whamex™ for a quick and thorough precleaning of your machine tool and coolant system prior to charge-up.
- Before using this product on any metals and applications not specifically recommended, consult Master Chemical Europe.
- This product should not be mixed with other metalworking fluids or metalworking fluid additives, except as recommended by Master Chemical Europe, as this may reduce overall performance, result in adverse health effects, or damage the machine tool and parts. If contamination occurs, please contact Master Chemical Europe for recommended action.
- TRIM® MicroSol® 515 working solution is translucent.
- Packaging: Europe/Asia – 20-litre pail, 204-litre drum, 1000-litre IBC.

Because conditions of use are beyond our control, no warranty, guarantee, or representation is made or intended in connection with the use of this product.  
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