TRIM™ MicroSol™ 515

Cutting and Grinding Fluid Concentrate

TRIM MicroSol 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 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.

Nuclear Components Manufacturer Reduces Consumption by 30% with Master Fluid Solutions™

A nuclear components manufacturer produces a wide range of products, including microelectronic hardware, radiation monitoring systems and integrated instrumentation diagnostic systems. The production facilities include everything needed for the full production cycle, from machine processing and printed circuit board production to surface mounting, assembling, welding and testing. Its primary metalworking applications are milling, drilling and turning of aluminium alloys and heat-resistant steel alloys, across approximately 100 CNC machines.

Choose MicroSol 515:

- 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 releasers or phenolic compounds

MicroSol 515 especially for:

Applications — band sawing, belt grinding, Blanchard grinding, corrosion inhibition, cylindrical form grinding, double disc grinding, drilling, high-pressure, high-volume, in-feed centreless grinding, internal grinding, plain grinding, reaming, roll threading, surface grinding, surface milling, tapping, thread forming, through-feed centreless grinding and turning

Metals — aerospace aluminium alloys, brass, bronze, cast iron, copper, ferrous metals, nonferrous metals and steels

Industries — aerospace, compressor, energy, machine tool and medical

MicroSol 515 is free of — chlorinated EP additives, DEA, formaldehyde releasers, nitrites and sulphurised EP additives

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Application Guidelines

- TRIM MicroSol 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 product application information, including performance optimisation, please contact your Master Fluid Solutions' Authorised Distributor at https://www.masterfluids.com/eu/en/distributors/index.php, your District Sales Manager, or call our Tech Line at +49 211 41 72 8 -900.

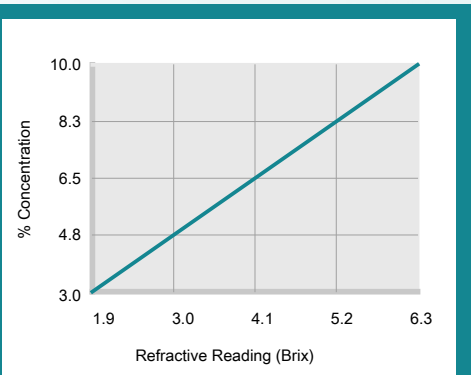
Physical Properties Typical Data

Colour (Concentrate)	Light brown
Odour (Concentrate)	Mild amine
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D93-08)	> 160°C
pH (Concentrate as Range)	9.1 - 10.1
pH (Typical Operating as Range)	9.0 - 9.5
Coolant Refractometer Factor	1.6

Recommended Metalworking Concentrations

Light Duty	3.0% - 6.5%
Moderate Duty	6.5% - 8.5%
Heavy Duty	8.5% - 10.0%
Design Concentration Range	3.0% - 10.0%

Concentration by % Brix



% Concentration = Refractive Reading x Refractive Factor
Coolant Refractometer Factor % Brix = 1.6

Health and Safety

Request SDS

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Mixing Instructions

- Recommended usage concentration in water: 3.0% - 10.0%.
- To help ensure the best possible working solution, add the required amount of concentrate to the required amount of water (never the reverse) and stir until uniformly mixed.
- Use premixed coolant as makeup to improve coolant performance and reduce coolant purchases. The makeup you select should balance the water evaporation rate with the coolant carryout rate. Use our Coolant Makeup Calculator to find the best ratio for your machine: apps.masterfluids.com/makeup/.
- Use mineral-free water to improve sump life and corrosion inhibition while reducing carryoff and concentrate usage.

Ordering Information

20-litre pail

204-litre drum

1000-litre IBC

Additional Information

- Use Master STAGES™ Whamex™ for a quick and thorough precleaning of your machine tool and coolant system.
- Consult Master Fluid Solutions before using on any metals or applications not specifically recommended.
- This product should not be mixed with other metalworking fluids or metalworking fluid additives, except as recommended by Master Fluid Solutions, as this may reduce overall performance, result in adverse health effects, or damage the machine tool and parts. If contamination occurs, please contact Master Fluid Solutions for recommended action.
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https://2trim.us/di/?i=eu_en_MS515

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