# TRIM™ MicroSol™ 519-em

## *Premium Microemulsion*

TRIM MicroSol 519-em is a medium to high lubricity, semisynthetic, microemulsion coolant. The formula provides excellent cooling and mechanical lubricity, along with the machine friendly characteristics you expect from a premium TRIM coolant. Whilst it is particularly suited to machining and grinding cast iron and steel, it does very well in mixed metal situations and is a proven performer on aluminium alloys, stainless steels and titanium.

## *MicroSol*



***For ultimate performance:***

*TRIM™ MicroSol™ semisynthetic microemulsion coolants deliver high-performance lubricity and ultimately lower costs. Achieve precision parts, exceptional tool life, extended sump life, assured regulatory compliance and greater profitability with the MicroSol product just right for your production.*

*Designed to meet the rigorous demands of the aerospace, medical, automotive and high-production precision parts manufacturing industries, there's a MicroSol to answer your concerns, ramp up your production, and boost your bottom line.*

### Choose MicroSol 519-em:

- Formaldehyde releaser and boron free
- Low foaming for modern high-pressure, high-volume applications
- Keeps machines very clean while leaving a soft fluid film for ease of cleaning and reduced maintenance
- Excellent alternative to high mineral oil soluble oils on high-silica aluminium alloys
- Greatly extends useful life without the need for tank side biocides or fungicides
- Optimised combination of cooling and lubricity for titanium machining applications
- Provides superior corrosion inhibition on all ferrous and nonferrous metals
- Uses standard metalworking recycling and disposal techniques

### MicroSol 519-em 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, copper, ferrous metals, nonferrous metals and steels

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

**MicroSol 519-em is free of —** boron and formaldehyde releasers

Master Fluid SOLUTIONS™

# TRIM™ MicroSol™ 519-em

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## Application Guidelines

- MicroSol 519-em performs well where traditional soluble oils may not cool sufficiently.
- In mixed-metal situations, concentration control is critical to fight galvanic corrosion (>7%).
- Running at or above 7% offers the best sump life and corrosion inhibition on cast iron chips.
- MicroSol 519-em is not recommended for use on very reactive metals such as magnesium.
- 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.

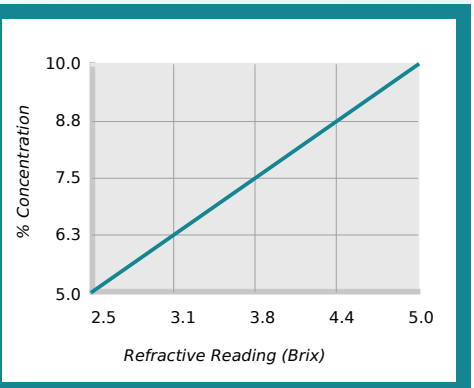
## Physical Properties Typical Data

| | |
|---|---|
| Colour (Concentrate) | Light brown |
| Colour (Working Solution) | Opaque |
| Odour (Concentrate) | Mild amine |
| Form (Concentrate) | Liquid |
| Flash Point (Concentrate) (ASTM D93-08) | > 160°C |
| pH (Concentrate as Range) | 9.2 - 10.2 |
| pH (Typical Operating as Range) | 9.0 - 10.0 |
| Coolant Refractometer Factor | 2.0 |

## Recommended Metalworking Concentrations

| | |
|---|---|
| Light Duty | 5.0% - 7.0% |
| Moderate Duty | 7.0% - 9.0% |
| Heavy Duty | 9.0% - 10.0% |
| Design Concentration Range | 5.0% - 10.0% |

## Concentration by % Brix




% Concentration = Refractive Reading x Refractive Factor
Coolant Refractometer Factor % Brix = 2.0

## Health and Safety

Request SDS

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## Mixing Instructions

- Recommended usage concentration in water: 5.0% - 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_MS519-EM

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