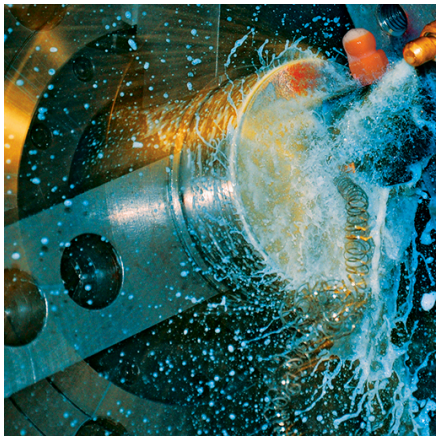
TRIM™ MicroSol™ 456

Low-foam Ferrous Semisynthetic

TRIM MicroSol 456 low-foam semisynthetic, microemulsion coolant is optimised for high-volume cast iron, ferrous and some aluminium and nonferrous metalworking operations. MicroSol 456 prevents leaching of elemental iron and eliminates clinkering and oxidation of ferrous micro fines.

Delivering extended sump life, machine-friendly MicroSol 456 provides excellent, cost-effective cooling. Make a difference to your bottom line with MicroSol 456.

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 456:

- Low foaming for today's demanding high-pressure, high-volume applications
- Also for machining some aluminium alloys and nonferrous metals
- Provides superior corrosion inhibition on cast iron and eliminates "hot chip" and clinkering problems
- Keeps machines very clean while leaving a soft fluid film for ease of cleaning and reduced maintenance
- Requires no special disposal or recycling

MicroSol 456 especially for:

Applications — grinding, high-pressure, high-volume, machining, milling, slab milling and turning

Metals — cast iron and ferrous metals

Industries — automotive and general industry

MicroSol 456 is free of — boron, chlorine, DEA, formaldehyde releasers and sulphur

Master Fluid SOLUTIONS™

TRIM™ MicroSol™ 456

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Application Guidelines

- Running at or above 6% offers the best sump life and corrosion inhibition on cast iron chips.
- MicroSol 456 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.

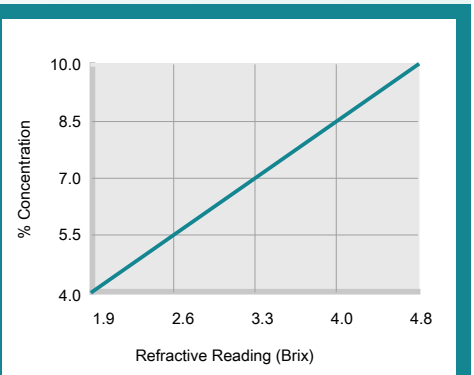
Physical Properties Typical Data

Colour (Concentrate)	Light yellow
Colour (Working Solution)	Opaque
Odour (Concentrate)	Mild amine
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D92-90)	> 140°C
pH (Concentrate as Range)	10.1 - 10.3
pH (Typical Operating as Range)	8.7 - 9.7
Coolant Refractometer Factor	2.1
Digital Titration Factor	0.0274

Recommended Metalworking Concentrations

Light Duty	4.0% - 6.5%
Moderate Duty	6.5% - 8.5%
Heavy Duty	8.5% - 10.0%
Design Concentration Range	4.0% - 10.0%

Concentration by % Brix



% Concentration = Refractive Reading x Refractive Factor
Coolant Refractometer Factor % Brix = 2.1

Health and Safety

Request SDS

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Mixing Instructions

- Recommended usage concentration in water: 4.0% - 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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