

# TRIM<sup>®</sup> E909

## ***Amine Free Machining & Grinding Emulsion***

TRIM E909 is a high quality, universal soluble oil with a broad application range in machining and grinding of a wide range of materials. Very high levels of extreme pressure additives in this product make it particularly suitable for the heavy duty machining jobs on stainless steel and other difficult to machine alloys. The inhibitor package in TRIM E909 also makes it particularly suited to the machining of copper alloys without component staining or unsightly machine residues.

### ***Soluble Oils***



Geared up for production:

With superior lubricity and a higher oil content, TRIM emulsions provide a greater boundary layer between the tool and the material, and are ideal for heavy duty applications such as broaching, reaming, deep hole drilling, drilling, tapping and centerless grinding.

TRIM Emulsions work well for machining copper, yellow metals, steel alloys, cast aluminiums, wrought aluminiums and tough-to-machine titanium and nickel-based alloys.



### **Choose E909:**

- Very stable formula provides long operational life with consistent performance
- Hard water tolerant
- Traditional extreme pressure (EP) additives control built-up edge (BUE)
- 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
- Will run effectively for long periods without the need for costly additives

### **E909 especially for:**

**Applications** — boring, centerless grinding, deep hole drilling, drilling, gear cutting, heavy-duty machining center work, high-pressure, high-volume, high-speed milling, high-speed turning, milling, reaming, roll threading, sawing, tapping, thread forming, thread rolling, turning

**Metals** — aluminium, copper, exotic alloys, Inconel<sup>®</sup>, steel alloys and yellow metals

**Industries** — automotive, energy and general industry

**E909 is free of** — amines, boron, formaldehyde releasers and nitrites

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## Amine Free Machining & Grinding Emulsion

### Application Guidelines

- Use higher concentrations for lower speed metal cutting operations where maximum lubricity is required and lower concentrations for operations requiring more cooling.
- Running at concentrations between 7 – 10% offers the best sump life and corrosion inhibition.
- 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 77 92 85 - 13.

### Physical Properties Typical Data

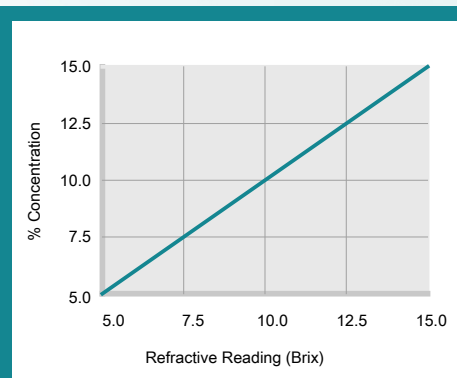
Colour (Concentrate)	Brown
Odour (Concentrate)	Bland
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D93-08)	> 100°C
pH (Typical Operating as Range)	8.0 - 9.5
Coolant Refractometer Factor	1.0

### Recommended Metalworking Concentrations

Light Duty	5.0% - 8.0%
Moderate Duty	8.0% - 10.0%
Heavy Duty	10.0% - 15.0%
Design Concentration Range	5.0% - 15.0%



### Concentration by % Brix



% Concentration = Refractive Reading x Refractive Factor  
Coolant Refractometer Factor % Brix = 1.0

### Health and Safety

Request SDS



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### Mixing Instructions

- Recommended usage concentration in water: 5.0% - 15.0%.
- 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/](https://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

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### Additional Information

- Use Master STAGES<sup>™</sup> Whamex<sup>™</sup> 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\\_E909](https://2trim.us/di/?i=eu_en_E909)



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