# TRIM™ E850-em

## *Premium Emulsion*

TRIM E850-em is a proprietary blend of new vegetable-based technology and premium traditional lubricity additives to yield a very high performance, low management metal removal fluid. This premium emulsion product is robust enough to deliver extended useful life and avoid rancid odours normally associated with traditional emulsions. The optimised lubricity and extreme pressure package delivers exceptional surface finish and tool life on difficult to machine aluminium alloys, inconel, titanium, stainless and high tensile strength steels.

## *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 E850-em:

- Delivers exceptional lubricity
- Very long sump life and low carry-off rates result in low operating cost
- Low foam even in soft water areas
- Hard water tolerant
- Non-chlorinated and non-sulphurised extreme pressure (EP) additives control built-up edge (BUE) in tough operations on aerospace materials
- Compatible with all materials excluding magnesium
- Easily recycled or disposed of without special handling or equipment
- Will run effectively for long periods without the need for costly additives

### E850-em especially for:

**Applications** — boring, centreless grinding, cutting, deep hole drilling, drilling, grinding, 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 and turning

**Materials** — aerospace aluminium alloys, brass, bronze, cast aluminium, composites, copper, exotic alloys, heat-treated steel, high tensile-strength steel, high-carbon steel, nickel alloys, nonferrous metals, plastics, stainless steels, steels and titanium

**Industries** — aerospace, automotive and energy

**E850-em is free of —** boron, chlorine, copper, formaldehyde releasers, halogens, nitrites and phenols

Master Fluid SOLUTIONS™

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## Application Guidelines

- 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.

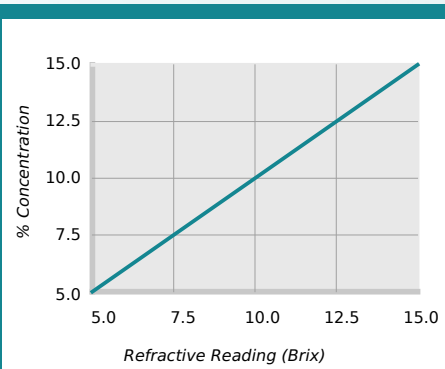
## Physical Properties Typical Data

| | |
|---|---|
| Colour (Concentrate) | Light brown |
| Odour (Concentrate) | Mild amine |
| Form (Concentrate) | Liquid |
| Flash Point (Concentrate) (ASTM D93-08) | > 120°C |
| pH (Concentrate as Range) | 9.5 - 10.0 |
| pH (Typical Operating as Range) | 9.0 - 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/.
- 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.
- TRIM® is a registered trademark of Master Chemical Corporation d/b/a Master Fluid Solutions.
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- The information herein is given in good faith and believed current as of the date of publication and should apply to the current formula version. Because conditions of use are beyond our control, no guarantee, representation or warranty expressed or implied is made. Consult Master Fluid Solutions for further information. For the most recent version of this document, please go to this URL:

https://2trim.us/di/?i=eu_en_E850-EM

Hasselsstraße 6-14
Düsseldorf, 40597
Germany
+49 211 41 72 82 00

info-eu@masterfluids.com

masterfluids.com/eu/en/