# TRIM™ E806

***Magnesium and multi-metal machining emulsion***

TRIM E806 is a truly unique metalworking fluid emulsion concentrate with unparalleled metal compatibility and all round machining performance characteristics. The product is primarily designed for machining magnesium alloys used in the aerospace, automotive and general industry sectors. TRIM E806 does not tarnish the most sensitive magnesium alloys even after relatively long exposure times plus it is impervious to magnesium salt build-up in the sump - something which splits normal emulsions in a matter of days. Another problem with magnesium machining, hydrogen gas evolution, is virtually nil with TRIM E806. The product also has the lubricity and extreme pressure performance to machine other alloys commonly seen in the aerospace industry such as wrought aluminiums, stainless steels, inconel® and titanium.

## *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.*

## *Aerospace Approvals*

| Company | Specification |
|---|---|
| GE AVIO | TN1482 |
| Leonardo SpA <small>(formerly AgustaWestland)</small> | No specification available |

## Choose E806:

- Safe for use on even the most sensitive magnesium alloys
- Little or no hydrogen gas evolution when machining magnesium
- Bio package extends useful life without the need for tank-side biocides or fungicides
- Low foaming for todays demanding high-pressure, high-volume applications

## E806 especially for:

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

**Metals** — aluminium alloys, magnesium alloys, nickel alloys, nonferrous metals, steel alloys, steels and titanium alloys

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

**E806 is free of —** boron, chlorine, formaldehyde releasers, phenolic compounds and sulphurised EP additives

Master Fluid SOLUTIONS™

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## 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 41 72 8 -900.

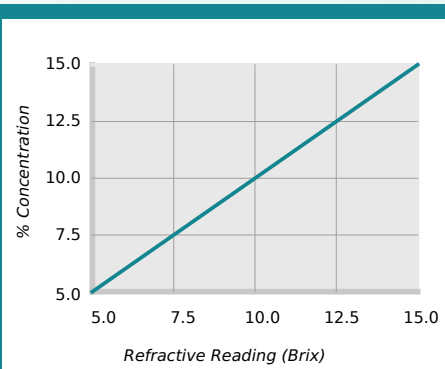
## Physical Properties Typical Data

| | |
|---|---|
| Colour (Concentrate) | Brown |
| Colour (Working Solution) | Milky white |
| Odour (Concentrate) | Mild amine |
| Form (Concentrate) | Liquid |
| Flash Point (Concentrate) (ASTM D93-08) | > 160°C |
| pH (Concentrate as Range) | 9.6 - 9.9 |
| pH (Typical Operating as Range) | 9.2 - 10.0 |
| Coolant Refractometer Factor | 1.0 |

## Recommended Metalworking Concentrations

| | |
|---|---|
| Light Duty | 5.0% - 7.5% |
| Moderate Duty | 7.5% - 9.5% |
| Heavy Duty | 9.5% - 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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https://2trim.us/di/?i=eu_en_E806

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