TRIM SOL®

General-purpose Emulsion

TRIM SOL is a soluble oil (emulsion) coolant concentrate which is the world standard general-purpose multi-metal coolant for general machining of ferrous and nonferrous materials. It has the lubricity and "guts" necessary to do heavy-duty machining center work and still provide the wetting and cooling necessary for high-speed turning and grinding operations.

Emulsions



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 aluminums, wrought aluminums, and tough-to-machine titanium and nickel-based alloys.

Aerospace Approvals

Company	Specification
Bombardier Aerospace	BAMS 569-001
Lockheed Martin/Sikorsky	G34.631
Lord Corporation	MTL-S-0136
Raytheon Technologies/Collins Aerospace/Pratt & Whitney	PMC 9328

Choose SOL:

- Proven to be highly effective in controlling built-up edge (BUE)
- Has a very wide application range and is often used in such diverse operations as production surface and centerless grinding, heavy-duty broaching, gear hobbing, and replacing straight oil on some types of screw machines
- Leaves a fluid, nongumming film to prevent sticky ways, chucks, tool holders, and fixtures
- Coolant residue is easily removed with either water, working solution, or aqueous cleaners
- Easy recycling or disposal with conventional techniques and equipment

SOL especially for:

Applications — broaching, centerless grinding, cutting, gear hobbing, heavy-duty broaching, heavy-duty machining center work, high-speed turning, roll threading, sawing, surface grinding, thread forming, and turning

Materials — ferrous metals, nonferrous metals, and steels

Industries — aerospace, automotive, and medical

SOL is free of — amines, animal derived materials, boron, DCHA, MEA, NPEs, and phosphorous

Master Fluid SOLUTIONS®

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Application Guidelines

- Runs effectively for long periods without the need for costly additives.
- Compatible with all ferrous and nonferrous materials, but not normally intended for use on long runs of gray cast iron or grades 40 or 60 nodular iron.
- 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 the BUE are critical.
- Concentrations of 7% and higher provide the best sump life with this product.
- For additional product application information, including performance optimization, please contact your Master Fluid Solutions' Authorized Distributor at https://www.masterfluids.com/na/en-us/distributors/index.php, your District Sales Manager, or call our Tech Line at 1-800-537-3365.

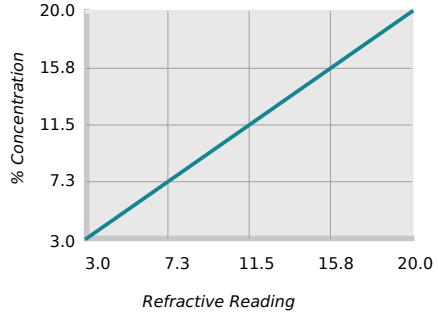
Physical Properties Typical Data

Color (Concentrate)	Blue green
Color (Working Solution)	Light blue
Odor (Concentrate)	Mild, sweet
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D93-08)	> 208°F
pH (Typical Operating as Range)	8.0 - 9.0
Coolant Refractometer Factor	1.0
V.O.C. Content (ASTM E1868-10)	94 g/l

Recommended Metalworking Concentrations

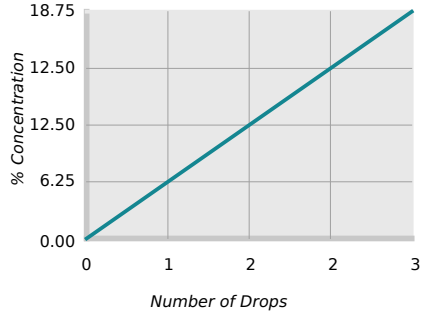
Light Duty	3.0% - 6.5%
Moderate Duty	6.5% - 8.5%
Heavy Duty	8.5% - 20.0%
Design Concentration Range	3.0% - 20.0%

Concentration by % Brix



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

Concentration by Titration



% Concentration = No. of Drops x Titration Factor
Titration Factor = 6.25

Health and Safety

Request SDS

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Mixing Instructions

- Recommended usage concentration in water: 3.0% - 20.0%.
- 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.



1-gallon jug
SKU: SOL-1G
UPC-12: 641238008361



5-gallon pail
SKU: SOL-5G
UPC-12: 641238008392



54-gallon drum
SKU: SOL-54G
UPC-12: 641238008408



270-gallon tote
SKU: SOL-270G
UPC-12: 641238034216

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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.
- Master STAGES™ and Whamex™ are trademarks of Master Chemical Corporation d/b/a Master Fluid Solutions.
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