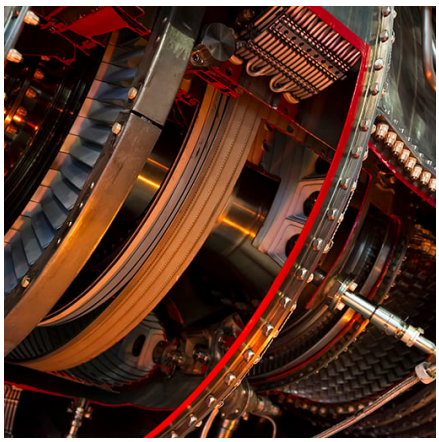
TRIM™ HyperSol™ 1500

Advanced Technology Aerospace Microemulsion

TRIM HyperSol 1500 is a high performance, synthetic ester-based microemulsion coolant formulated to fulfill modern aerospace requirements. It utilizes the newest technology to provide long life and excellent protection of sensitive alloys. HyperSol 1500 improves on the proven performance of previous generations with a robust stability package using the most advanced technology ingredients.

High-performance, Synthetic Ester Coolant



Synthetic ester-based microemulsions are changing the way the industry looks at coolants. This technology provides superior tool life while eliminating the need for mineral oils. These products run very clean and require very low makeup rates. The result is lower cycle times, higher product rates while reducing fluids usage significantly. It is an ideal product for demanding safety and production managers.

Aerospace Approvals

Company	Specification
SAFRAN	PR6300

Choose HyperSol 1500:

- Meets the most stringent aerospace specifications and approvals
- Protects and prevents corrosion on sensitive alloys, including aerospace materials
- Dramatically extends useful life without the need for tank-side biocides or fungicides
- Low foaming for today's demanding high pressure, high-volume applications
- Optimized combination of cooling and lubricity for titanium, Inconel®, aluminium, steel and stainless-steel machining applications
- Reduces fluid usage by lowering carry-off
- Keeps parts and machines very clean to reduce maintenance and production time

HyperSol 1500 especially for:

Applications — drilling, grinding, high-pressure, high-volume, milling, tapping and turning

Materials — aluminium, brass, bronze, cobalt alloys, composites, copper, exotic alloys, glass, heat-treated steel, high-carbon steel, high-nickel alloys, Inconel®, nonferrous metals, stainless steels, steels and titanium

Industries — aerospace

HyperSol 1500 is free of — boron, chlorine, DCHA, formaldehyde releasers, mineral oils, MIPA, phenols and secondary amines

Master Fluid SOLUTIONS™

TRIM™ HyperSol™ 1500

Advanced Technology Aerospace Microemulsion

Application Guidelines

- HyperSol 1500 performs well where traditional soluble oils may not cool sufficiently.
- In mixed-metal situations, concentration control is critical to fight galvanic corrosion (7.5% plus).
- Running at or above 7.5% offers the best sump life and corrosion inhibition on cast iron chips.
- HyperSol 1500 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.

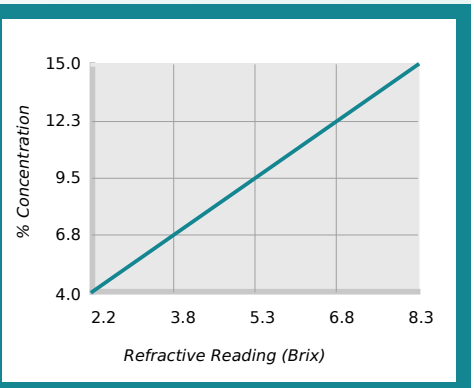
Physical Properties Typical Data

Colour (Concentrate)	Clear, light yellow
Colour (Working Solution)	Opaque
Odour (Concentrate)	Mild amine
Form (Concentrate)	Liquid
Flash Point (Concentrate) (EN ISO 2592)	> 120°C
pH (Concentrate as Range)	9.1 - 9.5
pH (Typical Operating as Range)	9.1 - 9.5
Coolant Refractometer Factor	1.8

Recommended Metalworking Concentrations

Light Duty	4.0% - 7.0%
Moderate Duty	7.0% - 9.0%
Heavy Duty	9.0% - 15.0%
Design Concentration Range	4.0% - 15.0%

Concentration by % Brix



% Concentration = Refractive Reading x Refractive Factor
Coolant Refractometer Factor % Brix = 1.8

Health and Safety

Request SDS

TRIM™ HyperSol™ 1500

Advanced Technology Aerospace Microemulsion

Mixing Instructions

- Recommended usage concentration in water: 4.0% - 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 XT™ 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 XT™ are trademarks of Master Chemical Corporation d/b/a Master Fluid Solutions.
- 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_HS1500

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

info-eu@masterfluids.com

masterfluids.com/eu/en/