

# TRIM™ HM

## Cutting and Grinding Fluid Concentrate

TRIM HM is a synthetic cutting and grinding fluid concentrate. It was developed to facilitate the manufacture of cutting tools from High-Speed Steels (HSS), Chill Cast Alloys, and other high-strength, high-hardness tool materials. TRIM HM is intended for situations where high-heat removal and low working concentrations are critical. TRIM HM is particularly well suited for surface grinding and similar operations requiring maximum heat transfer. It is often used effectively in double disc grinding, belt grinding, and abrasive cutoff operations on ferrous materials.

### Synthetics



#### Peak your performance:

*TRIM™ clean-running synthetics contain little to no oil. They are typically hard-water tolerant with good corrosion protection. Plus, synthetics leave very low residue for easy cleaning. Paired with extremely low carryoff, synthetics translate to less maintenance and lower operational costs, saving you time and money.*

*Run clean and long with TRIM synthetics.*



#### Choose HM:

- Is water clear with a fluorescent green tint to facilitate the operators' view of the work piece
- Even at very low concentrations it has extended sump life
- Settles chips and swarf rapidly and lends itself to very high flux rates in positive media filtration
- Low mist and odor
- Very low foam even at very high pressures and flow rates
- Low foaming wetting agents to keep the wheel clean and prevent wheel loading
- Will not attack super abrasives or their wheel bonding systems
- Coolant residue is easily cleaned up with either water or working solution
- Rejects tramp oil for easy skimming and recycling
- Easy recycling or disposal with conventional techniques and equipment

#### HM especially for:

**Applications** — abrasive cut-off machines, belt grinding, double disc grinding, grinding HSS tools, and surface grinding

**Metals** — hardened steel, high tensile-strength steel, high-strength alloy steels, and tool steels

**Industries** — machine tool and tool

**HM is free of** — 2-butoxyethanol (Butyl), active sulfur, alkylphenol ethoxylates, ammonia, animal derived materials, animal fats, barium, caustic, chlorinated compounds, chlorinated EP additives, chlorinated paraffin, chlorine, copper, DCHA, DEA, EDTA, formaldehyde releasers, halogens, heavy metals, kerosene, mineral oils, nitrates, nitride, nitrites, NPEs, oil, phenolic compounds, phenols, phosphate, phosphorous, PRTR materials, secondary amines, silicates, silicone, solvents, sulfonates, sulfur, sulfur-based additives, sulfurized EP additives, and zinc

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### Application Guidelines

- For additional product application information, including performance optimization, please contact your Master Fluid Solutions' Authorized Distributor at <https://www.masterfluids.com/ap/en-ap/distributors/index.php>, your District Sales Manager, or email us at [apac-info@masterfluids.com](mailto:apac-info@masterfluids.com).

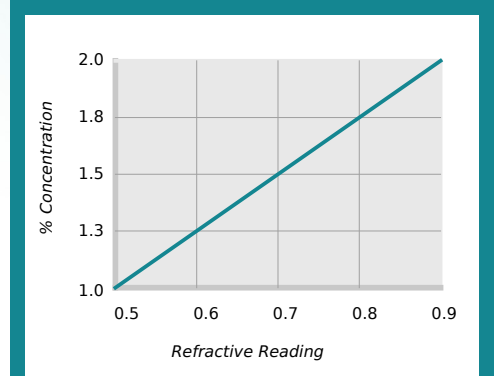
### Physical Properties Typical Data

Color (Concentrate)	Brown
Odor (Concentrate)	Mild, pleasant
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D92-90)	> 100°C
pH (Typical Operating as Range)	8.3 - 9.3
Coolant Refractometer Factor	2.2
Titration Factor (CGF-1 Titration Kit)	0.42

### Recommended Metalworking Concentrations

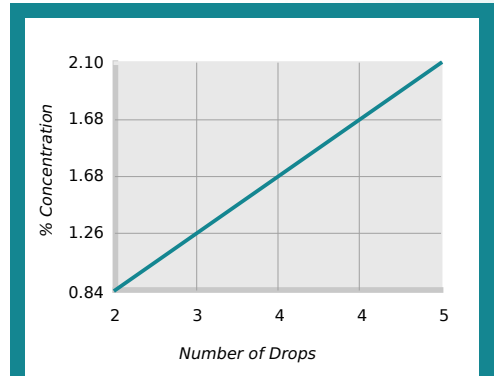
Light Duty	1.0% - 0.5%
Moderate Duty	0.5% - 2.5%
Heavy Duty	2.5% - 2.0%
Design Concentration Range	1.0% - 2.0%

### Concentration by % Brix



$\% \text{ Concentration} = \text{Refractive Reading} \times \text{Refractive Factor}$   
Coolant Refractometer Factor % Brix = 2.2

### Concentration by Titration



$\% \text{ Concentration} = \text{No. of Drops} \times \text{Titration Factor}$   
Titration Factor = 0.42

### Health and Safety

Request SDS



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### Mixing Instructions

- Recommended usage concentration in water: 1.0% - 2.0%.
- 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-liter pail

204-liter drum

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### 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 trademark of Master Chemical Corporation d/b/a Master Fluid Solutions.
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