C350

*Premium Synthetic Metalworking Fluid*

TRIM® C350 is a synthetic metalworking fluid optimized for the chemical, environmental, and machining requirements of the North American aerospace industry. C350 uses the best of the new ester technology to yield a very high performance, easy to use and maintain metal removal fluid. The combination of the proven synthetic ester technology and nonchlorinated EP package produces very high levels of usable lubricity at the point-of-cut. C350’s unique chemical formula allows superior, nonferrous corrosion prevention particularly on aerospace aluminum alloys.

**Synthetics**

Peak your performance:

*TRIM® clean-running synthetics contain little-to-no oil. They are hardwater 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 C350:

- Meets the most stringent nuclear and aerospace chemical content and machining requirements
- Superior resistance to corrosion on both nonferrous and ferrous materials including aerospace aluminums (7075, 2024, 3000, titanium, Inconel®, brass, and high-strength alloy steels)
- Water-clear, low foaming, and misting, C350 is a joy to work with and manage
- Provides superior results in a wide range of operations from general grinding to spar milling and turbine blade manufacture
- Easily removed from parts for easy cleanup before assembly, painting, or plating operations
- PRTR compliant, no SARA 313 reportable chemistry. Product contains no chlorine, phenol, nitrites, copper, triazine, or silicone
- Very low carryoff and long sump life results in low operating cost

C350 especially for:

**Applications** — band sawing, belt grinding, Blanchard grinding, corrosion inhibition, creep-feed grinding, cutting, cylindrical grinding, double disc grinding, drilling, form cylindrical grinding, form grinding, grinding, in-feed centerless grinding, internal grinding, plain grinding, reaming, roll threading, surface grinding, surface milling, tapping, thread forming, through-feed centerless grinding, and turning

**Metals** — 2024, 5000, 6000, 7075, aerospace aluminum alloys, brass, bronze, cast aluminum, composites, copper, exotic alloys, ferrous metals, glass, heat-treated steel, high-carbon steel, high-nickel alloys, high-strength alloy steels, Inconel®, nonferrous metals, plastics, stainless steels, titanium, wrought aluminum, and yellow metals

**Industries** — aerospace

**C350 is free of** — chlorine, nitrites, phenols, PRTR materials, SARA 313 listed ingredients, silicone, sulfur, and triazine
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**Application Guidelines**
- Higher concentrations of C350 increase both boundary and EP lubrication.
- Very low foam at working temperatures above 80°F (27°C).
- Maintaining concentration from 7.5% to 10% provides the best sump life and corrosion inhibition.
- C350 is not recommended on cast irons.
- C350 should not be used on magnesium or other reactive metals without special precautions.
- For additional product application information, including performance optimization, please contact your Master Fluid Solutions' Authorized Distributor at [https://www.2trim.us/distributors.php](https://www.2trim.us/distributors.php), your District Sales Manager, or call our Tech Line at 1-800-537-3365.

**Physical Properties Typical Data**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color (Concentrate)</td>
<td>Colorless to light yellow</td>
</tr>
<tr>
<td>Color (Working Solution)</td>
<td>Colorless to light yellow</td>
</tr>
<tr>
<td>Odor (Concentrate)</td>
<td>Mild amine</td>
</tr>
<tr>
<td>Form (Concentrate)</td>
<td>Liquid</td>
</tr>
<tr>
<td>Flash Point (Concentrate) (ASTM D92-90)</td>
<td>&gt; 199°F</td>
</tr>
<tr>
<td>pH (Concentrate as Range)</td>
<td>8.1 - 8.5</td>
</tr>
<tr>
<td>pH (Typical Operating as Range)</td>
<td>7.8 - 8.2</td>
</tr>
<tr>
<td>Coolant Refractometer Factor</td>
<td>1.8</td>
</tr>
<tr>
<td>Titration Factor (CGF-1 Titration Kit)</td>
<td>0.73</td>
</tr>
<tr>
<td>Digital Titration Factor</td>
<td>0.0282</td>
</tr>
<tr>
<td>V.O.C. Content (ASTM E1868-10)</td>
<td>45 g/l</td>
</tr>
</tbody>
</table>

**Recommended Metalworking Concentrations**

<table>
<thead>
<tr>
<th>Duty Type</th>
<th>Concentration Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light duty</td>
<td>6.0% - 7.0%</td>
</tr>
<tr>
<td>Moderate duty</td>
<td>7.0% - 9.0%</td>
</tr>
<tr>
<td>Heavy duty</td>
<td>9.0% - 10.0%</td>
</tr>
<tr>
<td>Design Range</td>
<td>6.0% - 10.0%</td>
</tr>
</tbody>
</table>

**Concentration by % Brix**

![Concentration by % Brix Graph]

\[ \% \text{ Concentration} = \text{Refractive Reading} \times \text{Refractive Factor} \]

Coolant Refractometer Factor % Brix = 1.8

**Concentration by Titration**

![Concentration by Titration Graph]

\[ \% \text{ Concentration} = \text{No. of Drops} \times \text{Titration Factor} \]

Titration Factor = 0.73

**Health and Safety**

See the most recent SDS at [https://2trim.us/s/?i=1066-0-en-US-US](https://2trim.us/s/?i=1066-0-en-US-US)
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Mixing Instructions

- Recommended usage concentration in water: 6.0% - 10.0%.
- 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.masterfluidsolutions.com/makeup/.
- Use mineral-free water to improve sump life and corrosion inhibition while reducing carryoff and concentrate usage.

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.

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