9106

Synthetic

TRIM® 9106 is a clear, virtually odorless, synthetic coolant with excellent heat dissipating and corrosion inhibiting qualities. Recommended for grinding operations on cast iron, aluminum, and steels. Will not form ammonia when grinding cast iron and allows graphite to float and prevents swarf from clinkering when grinding cast iron. Contains no sulfur, phosphorus, chlorine, or other halogens.

Synthetics

Peak your performance:

TRIM® clean-running synthetics contain little-to-no oil. They are 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 9106:

- Low mist
- Low foam
- Moderate pH
- Very low odor
- Clear working solution
- Very operator, machine, and environmentally friendly
- Will not form ammonia or other gases when grinding or machining cast iron
- Inhibits chip packing and clinkering
- Compatible with brass, aluminum, and lead serrations on magnetic grinding chucks
- Machines are easily washed off with coolant working solution to minimize the buildup of residues and chips
- Very low carryoff for extremely low fluid operating costs
- Easy recycling or disposal with conventional techniques and equipment

9106 especially for:

Applications — corrosion inhibition, grinding, and machining
Metals — aluminum, brass, cast iron, lead, and steels
Industries — aerospace and automotive

9106 is free of — biocides, chlorine, halogens, oil, phosphorous, and sulfur
Synthetic Application Guidelines

- Concentrations of 5% to 7% usually give the best tool life, finish, and sump life; however, the best concentration for your operation should be determined by on-site testing.
- Is an outstanding product for machining and grinding white and yellow metals because of its moderate operating pH.
- Works well where chemical compatibility with nonmetallic materials (plastics, rubbers, composites, etc.) is an issue.
- For additional product application information, including performance optimization, please contact your Master Fluid Solutions' Authorized Distributor at https://www.trim.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>Clear</td>
</tr>
<tr>
<td>Color (Working Solution)</td>
<td>Clear</td>
</tr>
<tr>
<td>Odor (Concentrate)</td>
<td>Odorless</td>
</tr>
<tr>
<td>Form (Concentrate)</td>
<td>Liquid</td>
</tr>
<tr>
<td>Flash Point (Concentrate) (ASTM D92-90)</td>
<td>&gt; 217°F</td>
</tr>
<tr>
<td>pH (Concentrate as Range)</td>
<td>8.2 - 8.6</td>
</tr>
<tr>
<td>pH (Typical Operating as Range)</td>
<td>8.2 - 8.4</td>
</tr>
<tr>
<td>Coolant Refractometer Factor</td>
<td>2.6</td>
</tr>
<tr>
<td>Titration Factor (CGF-1 Titration Kit)</td>
<td>0.49</td>
</tr>
<tr>
<td>Digital Titration Factor</td>
<td>0.0100</td>
</tr>
<tr>
<td>V.O.C. Content (ASTM E1868-10)</td>
<td>76 g/l</td>
</tr>
</tbody>
</table>

Recommended Metalworking Concentrations

<table>
<thead>
<tr>
<th>Duty</th>
<th>Concentration Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light duty</td>
<td>5.0% - 5.0%</td>
</tr>
<tr>
<td>Moderate duty</td>
<td>5.0% - 7.0%</td>
</tr>
<tr>
<td>Heavy duty</td>
<td>7.0% - 10.0%</td>
</tr>
<tr>
<td>Design Concentration Range</td>
<td>5.0% - 10.0%</td>
</tr>
</tbody>
</table>

Concentration by % Brix

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

Concentration by Titration

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

Health and Safety

See the most recent SDS at https://2trim.us/s/?i=1037-0-en-US-US
Mixing Instructions

- Recommended usage concentration in water: 5.0% - 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/](http://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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