TRIM® 229 is a synthetic coolant that delivers maximum chemical corrosion inhibition on ferrous materials with no residual film at the lowest possible cost. TRIM 229 is often used in surface grinding where maximum cooling and minimum foam are desirable. TRIM 229 is also used in other situations including: water tables on plasma torches, leak detection dip tanks, abrasive cut-off machines, and water-jet cutting systems.

**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 229:

- Highly concentrated for very low-cost working solutions
- Keeps grinding wheels clean and the work piece cool
- Rapidly settles fines
- Nonfoaming
- Low mist
- Low odor
- Very low residue for easy cleaning
- Provides good corrosion inhibition on all common ferrous materials
- Rejects tramp oil for easy skimming and cleaning
- Easy recycling or disposal with conventional techniques and equipment

229 especially for:

Applications — abrasive cut-off machines, cooling, corrosion inhibition, leak detection, surface grinding, and water-jet cutting

Metals — ferrous metals

Industries — aerospace and automotive

229 is free of — active sulfur, animal derived materials, chlorinated EP additives, DCHA, mineral oils, NPEs, phosphorous, siloxane, sulfur, and triazine
Corrosion-inhibiting Synthetic

Application Guidelines

- TRIM 229 is very effective as an additive to other coolant systems to raise pH, increase reserve alkalinity, and improve vapor phase corrosion inhibition.
- 0.5% - 1% working solution is often enough to control oxidation on steels, but 1.5% - 2.0% working solution is recommended for cast irons.
- For additional product application information, including performance optimization, please contact your Master Fluid Solutions' Authorized Distributor at 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</td>
</tr>
<tr>
<td>Color (Working Solution)</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor (Concentrate)</td>
<td>Mild, ammonical</td>
</tr>
<tr>
<td>Form (Concentrate)</td>
<td>Liquid</td>
</tr>
<tr>
<td>Flash Point (Concentrate) (ASTM D92-90)</td>
<td>&gt; 212°F</td>
</tr>
<tr>
<td>pH (Concentrate as Range)</td>
<td>11.0 - 11.4</td>
</tr>
<tr>
<td>pH (Typical Operating as Range)</td>
<td>8.5 - 9.0</td>
</tr>
<tr>
<td>Coolant Refractometer Factor</td>
<td>1.3</td>
</tr>
<tr>
<td>Titration Factor (CGF-1 Titration Kit)</td>
<td>0.11</td>
</tr>
<tr>
<td>Digital Titration Factor</td>
<td>0.0032</td>
</tr>
<tr>
<td>V.O.C. Content (ASTM E1868-10)</td>
<td>255 g/l</td>
</tr>
</tbody>
</table>

Recommended Metalworking Concentrations

| Design Concentration Range | 0.5% - 2.0% |

Concentration by % Brix

% Concentration = Refractive Reading x Refractive Factor
Coolant Refractometer Factor % Brix = 1.3

Concentration by Titration

% Concentration = No. of Drops x Titration Factor
Titration Factor = 0.11

Health and Safety

See the most recent SDS at https://2trim.us/s/?i=1057-0-en-US-US
Corrosion-inhibiting Synthetic

Mixing Instructions

- Recommended usage concentration in water: 0.5% - 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.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.
- 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=na_en-us_229