



# METALFORMING FLUIDS

## AMERICAN FORM 503

<b>APPLICATIONS</b>	<b>AMERICAN FORM 503 is a synthetic fluid for severe-duty stamping, piercing, punching, and drawing of ferrous and some non-ferrous metals.</b>
<b>FEATURES &amp; BENEFITS</b>	<ul style="list-style-type: none"><li>• EXCELLENT LUBRICITY</li><li>• EXCELLENT CORROSION CONTROL</li><li>• SIGNIFICANTLY IMPROVES TOOL AND DIE LIFE</li><li>• HAS REPLACED STRAIGHT OILS AND CHLORINATED PRODUCTS</li><li>• GOOD WELD THROUGH PROPERTIES</li><li>• GOOD CLEANLINESS</li></ul>

**RECOMMENDED STARTING DILUTIONS**

**FOR INDUSTRIAL USE ONLY.**

Use between 5% (1:20) and 50% (1:2) for stamping and drawing ferrous and some nonferrous metals and between 5% (1:20) and 10% (1:10) for machining and grinding ferrous and some nonferrous metals.

**AMERICAN FORM 503** is to be mixed with water for use (add concentrate to water). Add no other substances to the concentrate or mix unless approved by Technical Services.

Not recommended for use with magnesium or alloyed magnesium.

For concentration analysis, use the MI Titration Procedure, Non Solvent Titration Procedure, or Refractometer.

**TYPICAL PHYSICAL AND CHEMICAL PROPERTIES**

**Physical state:** Liquid  
**Appearance and odor:** Clear, Vanilla  
**Solubility in water:** Complete  
**Weight, lb/gal, 60°F (15.6°C):** 8.8  
**Specific gravity, (H 2 0 =1):** 1.05  
**Boiling point, °F (°C):** 212 (100)  
**Flash point, COC, °F (°C):** None, Self Extinguishing  
**Fire point, COC, °F (°C):** NA  
**Extinguishing media:** NA  
**Unusual fire & explosion hazards:** None  
**Freezing point (or pour point), °F (°C):** 12 (-11)  
 If frozen, thaw completely at room temperature.  
**pH, concentrate:** 8.7  
**pH, 20.0% mix, typical operating conditions:** 8.5  
**Total chlorine/chloride, wt%, calculated:** 0.00/<50 ppm  
**Total sulfur, wt%, calculated:** 9.49  
**Mercurials, phenols, PCB's, PTBBA, nitrite, diethanolnitrosamine, chlorinated paraffins, chlorinated solvents, silicones, mineral oil:**  
 None

**DOT LABELING REQUIREMENTS**

	Hazardous Materials Description and Proper Shipping Name (49 CFR172.101):	Hazard Class
<b>By land:</b>	Not a hazardous material	NA
<b>By air or vessel (49 CFR 175-176)</b>	NA	NA

For additional information concerning AMERICAN FORM 503, refer to its OSHA MSDS at [www.americanoil1895.com](http://www.americanoil1895.com) or call 1-888-OIL-1895.

Minor formulation changes or normal variations in the manufacture of this product may cause slight variances in the data presented on this sheet.

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