

### **MAXIM SEMI-SYNTHETIC 556 GENERAL PURPOSE CUTTING AND GRINDING FLUID**

**MAXIM SEMI-SYNTHETIC 556** is a water extendible, general purpose semi-synthetic cutting and grinding fluid formulated to perform exceptionally in a variety of machine operations.

**MAXIM SEMI-SYNTHETIC 556**, when mixed with water, forms a water-thin transparent micro-emulsion that exhibits excellent cooling properties for superior finishes and increased tool life. 556 is recommended for use when machining, sawing and grinding ferrous and non ferrous materials where machinability requirements range from mild to moderately severe. The opaque emulsion is non-foaming, silicon free, and easy to mix in both soft and hard water containing up to 1000ppm Ca/Mg hardness. **MAXIM SEMI-SYNTHETIC 556** remains highly transparent to afford the machine operator full view of the work.

The effective biostatic system formulated into the 556 yields a high resistance to microbial degradation and rancidity; this allows for longer coolant life in machine sumps and central coolant systems without special maintenance procedures. Unlike many solubles and synthetics, the 556 remains fluid in and on the surfaces of the machining center allowing slideways, chucks, and tooling to work freely without a hard-to-clean dry or sticky residue.

**MAXIM SEMI-SYNTHETIC 556** incorporates a three part DEA FREE rust inhibitor package that provides complete protection for machine surfaces and parts in process. 556 also contains an inhibitor to prevent galvanic corrosion between stacked parts. This feature makes 556 well suited for the machining of cast iron, copper and its alloys as well as a variety of machine operations on aluminum.

**MAXIM SEMI-SYNTHETIC 556** has met the criterion concerning corrosive characteristics of metalworking fluids on various metals set forth by the major D.O.D. contractors.

#### Recommended Starting Dilutions

Machining - drilling, turning, milling, tapping, boring, and reaming  
1 : 25 ( 4% ) to 1 : 10 ( 10% )

Sawing / Grinding - centerless, surface, cylindrical, internal.  
1 : 33 ( 3% ) to 1 : 14 ( 7% )

#### Concentration Check

Concentration	1:33 (3%)	1:25 (4%)	1:20 (5%)	1:17 (6%)	1:14 (7%)	1:12 (8%)	1:11 (9%)	1:10 (10%)
Refractometer Reading (Brix Scale)	0.9	1.1	1.5	1.7	2.0	2.3	2.6	2.9

**MAXIM SEMI-SYNTHETIC 556 continued**

**MAXIM SEMI-SYNTHETIC 556 Performance Advantages**

- + Unique Tool /Wheel Performance - Excellent cooling properties and extreme pressure lubricitycombine to provide extended tool life.
- + Excellent Cleanliness - Remains semi-transparent ; good settling properties provide for ease ofcontaminant removal; low foaming; non-drying on machine surfaces.
- + Exceptional Corrosion Control - Prevents in-process corrosion of work pieces and machine tool parts.
- + Long Life - More tolerant of hard water and tramp oils and has a high resistance to rancidityfor longer sump life.
- + High operator exceptance.

**Typical Physical Characteristics**

Weight, (lb.s / gal.)	.	.	.	.	.	8.5
Specific Gravity, 60/60F	.	.	.	.	.	1.02
Flash Point, COC F	.	.	.	.	.	none
pH, fresh,1:20 (5%) dilution	.	.	.	.	.	9.4
Color, dilution	.	.	.	.	.	opaque/blue-green
Color, concentrate	.	.	.	.	.	.undyed/blue

**Packaging**

MAXIM SEMI-SYNTHETIC 556 is available in 55 gallon steel drums, totes and bulk quantities.

**Shipping Identification / Labeling:**

**PETROLEUM / CHEMICAL COMPOUNDS  
CLASS 55 NFM 48580 SUB.4**

Label: Amine based compound - Possible eye irritant due to alkalinity in concentrate. Water-diluted material is not expected to be primary eye irritant when used as recommended. Read and understand Material Safety Data Sheet before handling or disposing of this product.

<b>HMIS</b>	
<b>Health</b>	<b>1</b>
<b>Flammability</b>	<b>1</b>
<b>Reactivity</b>	<b>0</b>
<b>Personal Protection</b>	<b>C</b>

For additional information, product samples, etc., please contact;  
MAXIM OIL & CHEMICAL COMPANY  
Fort Worth, Texas, 76140 - Metro (817) 654-4456  
[www.maximoil.com](http://www.maximoil.com)

**DISCLAIMER** Information contained herein is believed to be correct and reliable. However, Maxim Petrochemical Corporation does not assume liability for it or for recommendations of our representatives inasmuch as conditions and methods of use are beyond our control. Further, we make no warranty, expressed or implied, of any kind regarding those products or their use and purchaser assumes all risks of use or handling either in accordance with directions or not.

**MANUFACTURER DISCLAIMER** The information and recommendations contained herein are, to the best of the knowledge and belief of Maxim Petrochemical Corporation, accurate and reliable as of the date issued. Maxim does not warrant or guarantee their reliability, and Maxim shall not be liable for any loss or damage arising out of use thereof. The information and recommendations are for the user's consideration and examination. Conditions of use are beyond Maxim's control and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risk of their use, handling, and disposal of the product(s). This information relates only to the product(s) designated herein and does not relate to its use in combination with any other material or in any other process.