

METALWORKING

DATAFILE

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 alloys and most non ferrous materials where machinability requirements range from mild to moderately severe. The opaque emulsion is low-foaming, silicon free, and easy-to-mix in both soft and hard water.

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 preventive package that provides 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 and alloyed steels, and most non-ferrous materials, including machine operations on a variety of aluminum alloys.

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	1:25	1:20	1:17	1:12	1:10
	(3%)	(4%)	(5%)	(6%)	(8%)	(10%)
Refractometer Reading (2%Brix Scale)	0.9 Reading	1.1 x 2.08 =	1.5 Concentr	1.7 ration (%)	2.3	2.9

MAXIM SEMI-SYNTHETIC 556 Performance Advantages

- Unique Tool /Wheel Performance Excellent cooling properties and extreme pressure lubricity combine to provide extended tool life.
- + Excellent Cleanliness Remains semi-transparent; good settling properties provide for ease of contaminant 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 rancidity for longer sump life.
- + Environmental Attributes: Formulated without using Chloroparaffin(CP), DEA, secondary amines, DCHA, Formaldehyde, or Formaldehyde releasing biocides.
- + High operator exceptance.

Typical Physical Characteristics

 Weight, (lb.s / gal.)
 .
 8.5

 Specific Gravity, 60/60F
 .
 1.02

 Flash Point, COC F
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 none

 pH, fresh,1:20 (5%) dilution
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 9.8

 Color, dilution
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Color, concentrate undyed, available blue, red

Packaging

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

Shipping Identification / Labeling: Not DOT Regulated

Read and understand Safety Data Sheet / GHS before handling or disposing of this product.

For additional information, product samples, etc., please contact;

MAXIM OIL & CHEMICAL COMPANY

Fort Worth, Texas, 76140 - Metro (817) 654-4456

www.maximoil.com

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