

MAXIM SEMI-SYNTHETIC GS4 PREMIUM CUTTING AND GRINDING FLUID

MAXIM SEMI-SYNTHETIC GS4 is a water extendible, semi-synthetic cutting and grinding fluid formulated to perform exceptionally in a variety of machine operations.

MAXIM SEMI-SYNTHETIC GS4, when mixed with water, forms a water-thin transparent micro-emulsion that exhibits excellent cooling properties for superior finishes and increased tool life. GS4 is recommended for use in operations involving the most difficult to machine alloys including stainless, titanium and high nickel steels. The opaque emulsion is non-foaming, silicon free, and easy to mix in both soft and hard water.

MAXIM SEMI-SYNTHETIC GS4 remains highly transparent to afford the machine operator full view of the work.

The effective biostatic system formulated into the GS4 yields a higher resistance to microbial degradation and rancidity than conventional soluble oils; this allows for longer coolant life in machine sumps and central coolant systems without special maintenance procedures. Unlike many solubles and synthetics, the GS4 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 GS4 incorporates a three part DEA FREE rust inhibitor package that provides complete protection for machine surfaces and parts in process. GS4 also contains a copper brightener as well as an inhibitor to prevent galvanic corrosion between stacked parts. This feature makes GS4 well suited for the machining of copper and its alloys as well as a variety of machine operations on most aerospace alloys.

MAXIM SEMI-SYNTHETIC GS4 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%)

Grinding - centerless, surface, cylindrical, internal, belt, and disk
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)	1.7	2.3	2.9	3.4	4.0	4.6	5.1	5.8

MAXIM SEMI-SYNTHETIC GS4 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.
- +High operator acceptance.

Typical Physical Characteristics

Weight, (lb.s / gal.)	.	.	.	.	.	8.6
Specific Gravity, 60/60F	.	.	.	.	.	1.03
Flash Point, @ 5%, COC F	.	.	.	.	.	none
pH, fresh,1:20 (5%) dilution	.	.	.	.	.	9.8
Color, dilution	.	.	.	.	.	opaque/blue-green
Color, concentrate	.	.	.	.	.	.undyed/blue

Packaging

MAXIM SEMI-SYNTHETIC GS4 is available in 55 gallon steel drums, totes and bulk quantities.

Shipping Identification / Labeling:

PETROLEUM / CHEMICAL COMPOUNDS
CLASS 55 NFMCA 48580 SUB.4. NOT DOT REGULATED
 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.

HMIS	
Health	1
Flammability	1
Reactivity	0
Personal Protection	C

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