MAXIM METALWORKING DATAFILE

MAXUS VOR 3D
Minimum Quantity Lubricant(MQL)

MAXUS VOR 3D is a bio-based micro-lubrication fluid designed for use as a Minimal Quantity Lubricant (MQL) in design-appropriate micro-mists equipment. It is recommended for moderate to severe (MQL) applications such as milling, drilling, tapping, reaming, rolling, forming, cutting and sawing.

MAXUS VOR 3D is designed for use on all ferrous metals and most aluminum alloys and is compatible with common "micro-lube and micro-mist" systems. MAXUS VOR 3D is intended to be use as received and is not water-soluble.
MAXUS VOR 3D is a blend of vegetable fatty oils and proprietary polyolefin esters that feature superior lubricity and exceptional thermal stability. Maxim's Boundary Lubrication and Extreme Pressure component chemistry (EP) provides the elements at elevated levels that are extremely effective in reducing friction. Minute amounts are delivered directly to the cutting edge interface providing tremendous resistance to friction and wear. Where the use of a micro-lubrication is applicator impractical, MAXUS VOR 3D may be applied manually to the cutter / work piece. MAXUS VOR 3D does not produce hard-to-remove residues under conditions normally encountered.

Where applicable, MAXUS VOR 3D is cost effective in eliminating the use of flood coolants, providing savings with regards to performance and the cost of disposal. MAXUS VOR 3D is environmentally friendly, based on plant-renewable resources, and is formulated free of mineral oil and chlorine.
In addition to metal removal and metal forming, MAXUS VOR 3D has found success in a variety of applications such as plastics, rubber processing, etc; as well as in environmentally sensitive applications as found in forestry and mining industries.

ADVANTAGES

Out-performs more expensive products, compatible with common micro-lube and micro-mist systems.
Safer, more environmentally friendly; based on plant-renewable resources; formulated free of mineral oil / chlorine.
Eliminates the use of flood coolants, where applicable, and limits wastes and costs of disposal.
Promotes a cleaner shop environment.
Easily removed – does not produce hard-to-remove residues.
High levels of Extreme Pressure Lubricity (EP).
Promotes superior finish and tool life.

TYPICAL PROPERTIES

Appearance, Color	Light, Straw
Flash Point, COC F	>450
Specific Gravity, 15˚C	.87
Viscosity, cSt @ 40˚C	28
Extreme Pressure Components	Present
Copper Corrosion (3 hrs @ 100˚C)	1b
Rating of Biodegradation	Inherently biodegradable

MAXUS VOR 3D is available in 1-gallon, 5-gallon, and 55-gallon quantities.

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