



## VANGUARD 3010

### SEMI-SYNTHETIC METALWORKING FLUID

#### Description

VANGUARD 3010 is a multi-purpose sulfonate free semi-synthetic fluid used to machine ferrous and non-ferrous metals including: cast iron, stainless steel, strategic alloys, titanium, and aluminum.

This highly engineered formula contains anti-wear and extreme pressure additives chosen to provide best in class machining performance regardless of the severity of the operation.

Efficient lubricity and cooling are achieved through the incorporation of highly refined mineral oils and polymeric wetting agents.

VANGUARD 3010 provides excellent rust protection due to a proprietary manufactured tri-phase corrosion inhibitor package. Additionally, significant increases in sump life are achieved using VANGUARD 3010 due to the biostatic nature of the product.

#### Features & Benefits

- Extended tool life with increased production rates
- Significant sump life increases
- Low to no foam
- Best in class resistance to bacteria growth
- Exceptional tramp oil rejection
- Outstanding surface finish

#### Health & Safety

See the most recent MSDS which is available directly from Precision Fluids, your local salesman, or authorized distributor. Precision Fluids uses only raw materials not listed as carcinogenic by IRAC.

#### Physical Data

Appearance:	Clear Blue
Diluted Appearance:	Translucent
Blue Solubility	Water
Odor:	Mild Industrial
Specific Gravity:	1.01
Concentrate pH:	9.8
pH, 5 % dilution:	9.5
Freeze/Thaw Cycle:	Passed 3x

#### Application & Usage

Precision Fluids recommends using our Super Green cleaner before adding VANGUARD 3010 to a machine.

The recommended concentration for VANGUARD 3010 is 10% for optimum results. However, best results for any operation can only be determined through testing.

Maintaining the coolant at its optimum concentration is achieved through daily refractive index checking.

No special precautions are necessary with respect to seals or valves.

#### Refractive Index Monitoring (2.5 X multiplier)

Percent	Ratio	Refractometer Reading
5	19 to 1	2.0
10	9 to 1	4.0
15	6 to 1	6.0
20	4 to 1	8.0

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