



## VANGUARD 4005

### METALWORKING FLUID FOR HIGH PRESSURE MACHINES

#### Description

VANGUARD 4005 is a micro-soluble metalworking fluid designed for high pressure coolant applications. The product is found in systems with pistons and positive displacement pumps that increase coolant pressure up to 2000 psi.

VANGUARD 4005 has a sulfonate free emulsifier package that provides exceptional stability even in high pressure systems. The product is often found displacing low foaming synthetic formulations.

The product provides "soluble-oil" performance with sump stability that approaches that of a synthetic product. The product is non-irritating to workers' skin and will not cause dermatitis issues.

VANGUARD 4005 provides excellent rust protection due to a proprietary manufactured tri-phase corrosion inhibitor package.

#### Features & Benefits

- Designed for high pressure machining systems
- Low to no foam
- Extended tool life with increased production rates
- Best in class resistance to bacteria growth
- Exceptional tramp oil rejection
- Outstanding surface finish
- Non-irritating to operators' skin

#### 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:	Translucent Blue
Diluted Appearance:	Milky Light Blue
Solubility	Water
Odor:	Mild Industrial
Specific Gravity:	0.97
Concentrate pH:	9.3
pH, 5 % dilution:	9.0
Freeze/Thaw Cycles:	Passed 3x

#### Application & Usage

Precision Fluids recommends using our Super Green cleaner before adding VANGUARD 4005 to a machine.

The recommended concentration for VANGUARD 4005 is 5 - 8% for optimum results. However, 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 (1.1X multiplier)

Percent	Ratio	Refractometer Reading
5	19 to 1	4.6
8	13 to 1	7.3
10	9 to 1	9.1
11	10 to 1	10.0

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