

NUSOL® 21 PREEMINENT CP

NUSOL METALWORKING TECHNOLOGY: SEMI-SYNTHETIC BASED
WITH ENHANCED CORROSION INHIBITION

▷ PRODUCT DESCRIPTION

NuSol® 21 Preeminent CP is the next step in semisynthetic technology represented by NuSol formulations exclusively offered by Chemtool Incorporated. NuSol 21 Preeminent CP incorporates a blend of high viscosity synthetics and traditional base stocks performed as emulsions. This increases the film strength to properly lubricate modern high speed operations prolonging tool life and minimizing down time.

The preformed emulsions are manufactured as intermediates and have a very small and stable particle size of one micron. The tight tolerances in the particle size provides an improved, uniform balance of wetting and plate out of lubricant film which enhances cooling while imparting exceptional stability in hard water.

NuSol 21 Preeminent CP is an excellent replacement for soluble oil applications, including quenching fluids, machining operations, and forming fluids. NuSol 21 Preeminent CP is formulated with enhanced corrosion inhibition for both ferrous and non-ferrous alloys. In addition, it offers excellent biostability properties for a soluble oil replacement. NuSol 21 Preeminent CP offers general lubrication for ferrous applications and should be evaluated for select non-ferrous metal machining applications.

▷ FEATURED BENEFITS

- The biostable chemistry maintains the pH eliminating objectionable odors
- Excellent corrosion protection for all tooling, equipment, and parts
- Exceptional lubricant film for exceptional tool life and quality finishes
- Extremely small particle size for superior wetting and excellent hard water stability
- High degree of cleanliness and low reportable VOC's for operator acceptance
- Excellent replacement for soluble oil quenching fluids and machining fluids
- Higher viscosity oils offer improved hydrodynamic lubrication without heavy oil content limiting coolant carry-off and providing a cleaner machine interior
- High flash point oils eliminate mist and evaporation that reduces coolant cost and promotes a healthy work environment
- All ingredients are generally regarded as safe
- Tramp oil rejection eliminates a source for bacteria and rancid odors that reduces sump change outs, disposal costs, and machine downtime

▷ APPROVALS

- Super-compliant for California SCAQMD Rule 1144

APPLICATION



COMPATIBLE METALS

Cast Iron
Carbon Steel
Tool Steel
Stainless Steel
Aluminum
Titanium
Inconel
Bronze
Copper
Brass

MACHINING CAPABILITIES

Milling
Turning
Sawing
Drilling
Reaming
Tapping
OD/ID/Centerless Grinding
Burnishing
Light Duty Hobbing & Broaching

HIGH PRESSURE COOLANT CAPABILITY

Yes

ALL METAL SAFE

Yes

REFRACT INDEX

2.8





TYPICAL PROPERTIES

Fluid Type	NuSol metalworking technology
Appearance	Off-white, translucent emulsion
Odor	Mild odor
Specific Gravity, 60°F (15.6°C)	1.032
Weight, 60°F (15.6°C)	8.60 lbs/gal.
pH (10% dilution)	9.50 – 10.2
Biostability	Excellent
VOC, ASTM E 1868	43.1 grams/liter

PRODUCT APPLICATION / USAGE

NuSol 21 Preeminent CP is recommended for general purpose and high performance machining and grinding of ferrous and non-ferrous alloys.

Operation	Carbon Steels, Cast Iron	High Alloy Steels	Aluminum Alloys
Milling, Drilling, Turning	6%	6 – 9%	6 – 10%
Reaming, Light Duty Broaching, Tapping, Sawing	6 – 9%	6 – 12%	6 – 14%
Grinding: I.D., O.D.	6%	6 – 8%	6 – 7%

MIXING DATA

NuSol 21 Preeminent CP metalworking fluid is to be mixed with water for use. Always add product concentrate to the water, not water to product concentrate. Product concentration can easily be monitored by refractometer.

Concentration	20.0%	17.5%	15.0%	12.5%	10.0%
Refractometer Reading	6.7	5.8	5.0	4.15	3.0

PRODUCT CODE

27089B0000

HEALTH AND SAFETY

For health and safety guidance, please refer to the Chemtool SDS (Safety Data Sheets).