

NUSOL[®] 21 SUPREME HD

METAL WORKING FLUIDS
Technical Data Sheet

NEW TECHNOLOGY METALWORKING FLUID SOLUBLE OIL REPLACEMENT

PRODUCT DESCRIPTION

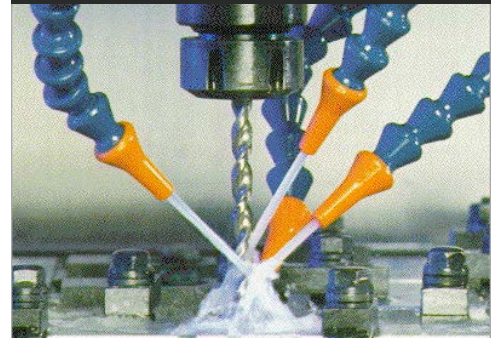
NuSol[®] 21 Supreme HD is a completely new technology that Chemtool Incorporated is introducing to the metalworking industry. NuSol[®] 21 Supreme HD is like no other metalworking fluid on the market today. NuSol[®] 21 Supreme HD is manufactured using a proprietary process that incorporates into the product many unique characteristics which promote very high productivity and minimal downtime for the end user. NuSol[®] 21 Supreme HD is formulated using a unique preformed emulsion of very small and stable particle size (average particle size of one micron). This preformed emulsion, based upon a high viscosity, high molecular weight hydrocarbon base stock, provides superior boundary lubrication. The small particle size provides a very durable and uniform lubricant film, enhanced cooling, a very clean running fluid, and exceptional hard water stability.

NuSol[®] 21 Supreme HD is an excellent replacement for general purpose soluble oils for machining and grinding applications run on both machining/grinding centers and in central systems. For an upgrade over traditional soluble oils for all metals, NuSol[®] 21 Supreme HD is the NuSol[®] of choice.

FEATURED BENEFITS

- Will not produce "Monday Morning Odors." The biostable chemistry maintains the pH eliminating objectionable odors
- Good corrosion protection for all tooling, equipment, and parts
- Exceptional lubricant film for good tool life and quality finishes
- Extremely small particle size for superior wetting and excellent hard water stability
- High degree of cleanliness and very low reportable VOC's for operator acceptance
- Excellent replacement technology for traditional machining soluble oils
- Compatible with all metals

PRODUCT 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
Medium-Duty Stamping & Drawing

HIGH PRESSURE COOLANT CAPABILITY

Yes

ALL METAL SAFE

Yes

REFRACT INDEX

3.3

PRODUCT SPECIFICATIONS

Fluid Type	New technology metalworking fluid
Appearance	Off-white and translucent fluid
Odor	Mild
Specific Gravity, 60° F (15.6° C)	1.03
Weight, lb/gal., 60° F (15.6° C)	8.60
pH (10% dilution)	9.30 – 9.50
Biostability	Excellent

PRODUCT APPLICATION / USAGE

NuSol® 21 Supreme HD is recommended for general purpose machining and grinding of ferrous and non-ferrous alloys.

Operation	Carbon Steels, Cast Iron	High Alloy Steels	Aluminum Alloys
Milling, Drilling, Turning	6 – 7%	6 – 10%	6 – 11%
Reaming, Light Duty Broaching, Milling, Tapping, Sawing	7 – 9%	7 – 12%	6 – 13%
Grinding: I.D., O.D.	6 – 7%	6 – 8%	6 – 9%

MIXING DATA

NuSol® 21 Supreme HD 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	10%	6%	5%	4%	3%
Refractometer Reading	3.0	2.0	1.5	1.3	1.0

AVAILABILITY

275 Gallon Tote
55 Gallon Drum
Bulk Quantity

2708900000-CT2021
2708900000-CT3533

HEALTH AND SAFETY

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



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