

NUSOL[®] 21 ULTRA MAX

METAL WORKING FLUIDS
Technical Data Sheet

NEW TECHNOLOGY METALWORKING FLUID

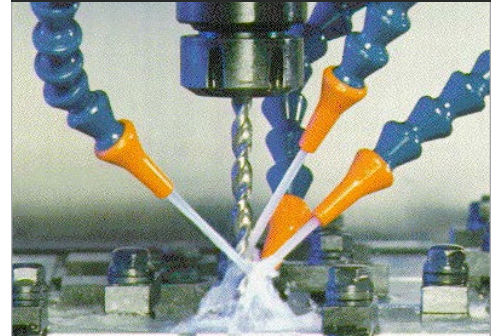
PRODUCT DESCRIPTION

NuSol[®] 21 Ultra Max is a completely new technology that Chemtool Incorporated is introducing to the metalworking industry. NuSol[®] 21 Ultra Max is like no other metalworking fluid on the market today. NuSol[®] 21 Ultra Max is manufactured using a proprietary process that gives the product many unique characteristics, which will promote very high productivity and minimal downtime for the end user. NuSol[®] 21 Ultra Max is formulated specifically for your most demanding aluminum operations from automotive to aerospace approval. Whether your operation is severe roll forming or high speed micro tapping, NuSol[®] 21 Ultra Max is formulated to surpass your expectations. The uniquely small particle size provides a durable and uniform lubricant film, offering enhanced cooling, and film strength while maintaining a clean running fluid with exceptional hard water stability.

FEATURED BENEFITS

- Will not produce "Monday Morning Odors" as the biostable chemistry maintains the pH, eliminating objectionable odors
- Excellent corrosion protection for all tooling, equipment, and parts
- Exceptional lubricant film for superior tool life
- Extremely small particle size for superior wetting
- Excellent hard water stability
- High degree of cleanliness and no reportable VOC's for operator acceptance
- Low BOD₅ and COD
- Contains more EP ingredients than standard NuSol[®] 21 Ultra and Ultra SX

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

3.2

PRODUCT SPECIFICATIONS

Fluid Type	New technology metalworking fluid
Appearance	Opaque white
Odor	Mild
Specific Gravity, 60°F (15.6°C)	1.01
Weight, lb/gal., 60°F (15.6°C)	8.41
pH (5% dilution)	9.1 - 9.5
Biostability	Excellent

PRODUCT APPLICATION / USAGE

NuSol® 21 Ultra Max 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	4 – 7%	5 – 10%	5 – 12%
Reaming, Light Duty Broaching, Form Milling, Tapping, Sawing	5 – 9%	5 – 12%	7 – 15%
Grinding: I.D., O.D.	3 – 4%	4 – 7%	3 – 4%

MIXING DATA

NuSol® 21 Ultra Max metalworking fluid is to be mixed with water for use. Always add product concentrate to the water, not water to product concentrate. Add with mild agitation. Product concentration can easily be monitored by refractometer.

Concentration	15%	10%	8%	5%	3%
Refractometer Reading	4.0	2.6	2.0	1.2	0.8
Drops 0.5N HCL	12	8	6	3	2

AVAILABILITY

275 Gallon Tote	2705100000-CT2021
55 Gallon Drum	2705100000-CT3551
5 Gallon Pail	2705100000-CT5546
Bulk Quantity	

HEALTH AND SAFETY

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



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