

NUSOL® ALUMAX

METALWORKING FLUID FOR NON-FERROUS METALS / EXOTIC ALLOYS

▷ PRODUCT DESCRIPTION

NuSol® Alumax is a non-chlorinated technology for the machining of non-ferrous metals and exotic alloys. NuSol Alumax is formulated for all machining operations on all metals but is specifically designed to machine today's tougher non-ferrous and aluminum alloys. NuSol Alumax is manufactured using a proprietary blending process that incorporates many unique characteristics into the product that will promote high productivity rates and minimal downtime for the end user.

NuSol Alumax is formulated using a blend of unique preformed emulsions that possess a very small particle size and which demonstrate outstanding hydrodynamic lubrication for high speed machining. This small particle size provides a very durable and uniform lubricant film, enhanced wetting and coverage, a very clean running fluid, and exceptional hard water stability for enhanced machining performance on non-ferrous and aluminum alloys. NuSol Alumax preformed emulsions are further complemented with the presence of a surfactant package, offering enhanced boundary lubrication and fluid detergency and cleanliness.

▷ FEATURED BENEFITS

- Resistant to "Monday Morning Odors." The biostable chemistry maintains the pH eliminating objectionable odors
- Excellent corrosion protection for all tooling, equipment, and parts
- Exceptional lubricant film strength for increased tool life and finish on all metals
- Extremely small particle size for superior wetting and coverage on all metals
- Excellent hard water stability
- High degree of cleanliness and no reportable VOC's for operator acceptance
- Halogen free
- Excellent rejection of process oils and system contaminants
- Low foaming
- Excellent tolerance and micro-finish control at speed up to 10,000 RPM
- Higher viscosity oils offer improved boundary lubrication without heavy oil content reducing 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
- Proven history of being operator safe
- Tramp oil rejection eliminates a source for bacteria and rancid odors that reduces sump change outs, disposal costs, and machine downtime
- Non-chlorinated

▷ APPROVALS

- 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
Medium-Duty Stamping & Drawing

HIGH PRESSURE COOLANT CAPABILITY

Yes

ALL METAL SAFE

Yes

REFRACT INDEX

2.5

NON-CHLORINATED





TYPICAL PROPERTIES

Fluid Type	New technology, semi-synthetic metalworking fluid
Appearance	White, translucent emulsion
Odor	Mild
Specific Gravity, 60°F (15.6°C)	1.014
Weight, 60°F (15.6°C)	8.45 lbs/gal.
pH (10% dilution)	9.30
Biostability	Excellent
VOC, ASTM E 1868	150.8 grams/liter

PRODUCT APPLICATION / USAGE

NuSol Alumax is recommended for general purpose machining of aluminum alloys, non-ferrous and aluminum alloys, and tougher exotic alloys (both non-ferrous and ferrous).

Operation	Aluminum Alloys	Copper and Brass	Ferrous Alloys
Milling, Drilling, Turning	8 – 12%	7 – 10%	8 – 14%
Reaming, Light Duty Broaching, Milling, Tapping, Sawing	8 – 14%	7 – 11%	9 – 15%
Grinding: I.D., O.D.	6 – 7%	6 – 7%	6 – 8%

MIXING DATA

NuSol Alumax 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	12.5%	10.0%	7.5%	5.0%	2.5%
Refractometer Reading	5.0	4.0	3.0	2.0	1.0

PRODUCT CODE

27023F0000

HEALTH AND SAFETY

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