

CIMPERIAL[®] 861

With InSol[™] Technology

METALWORKING FLUID



PRODUCT INFORMATION FLYER

What is InSol[™] Technology?

InSol Technology puts lubricant at the cut zone-tooling interface so that lubrication and cooling are optimized. Since InSol Technology is water soluble, this great performance lasts longer due to lower depletion rates. Best of all, InSol Technology can help with tough alloys and even form tapping of aluminum. Using CIMTECH fluids with InSol Technology can improve machining and grinding ratios significantly compared to conventional fluids.

DESCRIPTION

CIMPERIAL 861 With InSol Technology is a hybrid lubricity, semi-synthetic metal working fluid designed for the aerospace industry and is recommended for moderate to heavy duty machining and grinding operations, on ferrous or non-ferrous metals. Lubricity of this fluid on titanium, aluminum and even cast iron or steel makes it ideal for aerospace, automotive and general industry applications where a premium fluid is needed.

APPLICATION

CIMPERIAL 861 With InSol Technology can be used on wrought aluminum alloys (2024, 6061, 7050, 7075), cast aluminum alloys (380, 390), cast iron, nodular iron, carbon steels, stainless steels, titanium and other exotic alloys except magnesium alloys. It is especially suited for high pressure and through-the-tool coolant delivery systems and is the product of choice for aerospace applications where extra lubricity and long sump life are needed.

APPROVALS

BOMBARDIER BAMS 569-001 Class A
BOEING BAC 5008, Revision U, areas 5 and 6

FEATURES & BENEFITS

- Excellent lubricity, tool life and surface finish
- Excellent rancidity control and sump life
- Minimal need for additives
- Low misting
- Mild to skin
- Very low foaming even when used with de-ionized water
- Like all Cimcool Fluids, does not contain DCHA

RECOMMENDED STARTING DILUTIONS

CIMPERIAL 861 With InSol Technology is to be mixed with water for use. Always add concentrate to water. Fluid may be more difficult to mix when water temperature is below 55°F (13°C). Add no other materials to the concentrate or mix unless approved by your CIMCOOL® Territory Manager.

Grinding	5% - 10%	(1:20 to 1:10)
Machining	5% - 10%	(1:20 to 1:10)

CONCENTRATION

NS Titration, Total Alkalinity or Refractometer can be used.

The Refractometer Factor is 1.0

Multiply the scale reading obtained on your CIMCOOL® Refractometer by this factor to obtain the mix concentration in percent. Calibrate the refractometer so that it reads 0.0 with water before testing the sample mix. Remove gross contaminants from the sample mixes before testing. A refractometer is only recommended for use in checking the concentration on a fresh charge.

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Solubility in water: 100% miscible

Viscosity (SUS) @ 100°F (38°C): 524

pH Mix 5%, Typical Operating: 8.8

Appearance and Odor: Amber/Chemical

Weight, lb/gal, 60°F (15.6°C): 8.22

Flash Point /Sp.Gr./Boiling Point: SEE MSDS

HANDLING AND STORAGE

If frozen, thaw completely at room temperature before use. Inside storage is recommended.

SAFETY DATA SHEET

Available at www.cimcool.com

For additional information refer to its MSDS, website or contact CIMCOOL® Technical Services at 1-513-458-8199.

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