



# Product Information Flyer

### DESCRIPTION

MILFORM 645 is a soluble oil used for moderate to heavy duty stamping and drawing.

### APPLICATION

MILFORM 645 is recommended for stamping and drawing of steels and stainless steel. It is an excellent choice for powdered metal applications.

### FEATURES & BENEFITS

#### LUBRICITY:

MILFORM 645 provides excellent lubricity and extreme pressure (EP) performance.

#### CORROSION PROTECTION:

MILFORM 645 provides excellent long-term corrosion control.

#### VERSATILITY:

MILFORM 645 contains an extreme pressure lubricant and extends tool life.

### RECOMMENDED STARTING DILUTIONS

The proper concentration of MILFORM 645 will vary dependent upon the type of metal, gauge of metal, process involved and method of lubricant application. MILFORM 645 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.

Roll Forming Applications: Typical Range is 5% (1:20) to 10% (1:10)  
Stamping & Drawing Applications: Typical Range is 10% (1:10) to 40% (1:2.5)

### CONCENTRATION

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.

### TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Liquid

**Solubility in water:** 100% miscible

**Viscosity SUS @ 100 °F (38°C):** 1,290

**pH Concentrate:** NA

**Total Chlorine/Chlorides, wt%:** 13.9/<50 ppm

**Silicones:** None

**Appearance and Odor:** Clear/Chemical

**Weight, lb/gal, 60°F (15.6 °C):** 8.5

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

**pH Mix 20%, Typical Operating:** 8.8

**Total Sulfur, wt%:** 0.4

### HANDLING AND STORAGE

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

### SAFETY DATA SHEET

Available at [www.cimcool.ca](http://www.cimcool.ca)

For additional information refer to its WHMIS MSDS, website or contact CIMCOOL® Technical Services at 1-513-458-8199 in Ohio or 1-888-254-1919 in Canada.

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