

## FLC-215 Precision Ceramic & Metal Grinding Fluid

FLC-215 Precision Ceramic & Metal Grinding Fluid provides high levels of both finish and machine corrosion protection. It is specifically formulated for precision grinding of ceramic materials. FLC-215 is fortified with a special soft-settling additive to keep ceramic grinding swarf from settling rock hard in coolant sumps.

FLC-215 is low foaming and low misting. FLC-215 is cost-effective and will meet the needs of high performance grinding operations. It is ideal for jobs requiring superior finishing and extended wheel life and can be used as a metal grinding fluid as well.

**Superior Corrosion Protection** – FLC-215 passes a standard ASTM Cast Iron Chip Test at a 40:1 dilution and produces a perfect pass at 35:1.

**Added Lubricity** – FLC-215 has moderately high levels of added lubricity and load carrying additives for superior finishing capabilities and extended wheel life.

**Low Misting** – FLC-215 resists misting in the harshest applications, including Blanchard grinding.

**Versatile** – FLC-215 is ideal for most grinding operations, including Blanchard, Kleep, heavy surface and light machining on ceramic and ferrous metals.

**Rejects Tramp Oil** – FLC-215 is formulated to reject tramp oils to help maintain a much clean machine and a healthy work environment.

**Biologically Stable** – FLC-215 is formulated to provide extended tank life and low sludge levels due to biological build up.

**Economical** – FLC-215 meets the basic grinding needs of today's production ceramic and metal grinding shops at an economical price.

**Will Not Attack Copper or Aluminum** – FLC-215 is compatible with most steel and cast iron metals and will not dissolve copper.

**Calculating Starting Amount of Coolant** – To calculate the correct amount of coolant to be added to the sump, multiply coolant sump volume by 7.5 (the number of gallons of liquid in a cubic foot).

**Example:**

Tank width = 2 ft

Tank length = 6 ft

Tank depth = 2 ft

Volume =  $2 \times 6 \times 2 = 24$  cu ft

Liquid Volume =  $24 \times 7.5 = 180$  gal

For a 50:1 concentration, add  $180/50 = 3.6$  gal to the coolant tank.

**Adding FLC-215 to the Coolant Tank** – When diluting FLC-215, ensure that the machine sump is clean and free of built up glass fines and other foreign materials. Always add water to the sump first after cleaning, and then add FLC-215. Circulate the sump for several minutes before starting production to give the tank time to completely mix.

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**Checking Concentration** – Coolant concentration should be checked daily whenever possible. The simplest method is with a hand held refractometer. For the best results, always filter the coolant through a 1-micron filter before reading the solution concentration. Once the coolant has been filtered, place a drop or two on the face of the refractometer. Hold the instrument up to the light and read the number just at the light colored line on the screen face. Write down and use it to refer to the refractive index chart enclosed with the product. Find the reading on the refractometer and locate it on the left-hand side of the chart. Now read to the right and down to determine the current dilution.

### Recommended Starting Dilutions

Surface Grinding 10:1 - 30:1  
Blanchard Grinding 20:1 - 30:1  
Double Disk Grinding 10:1 - 25:1

### Typical Properties

Appearance Transparent Green  
Liquid  
Volatile Component Water  
Freeze Point 32°F  
Boiling Point 212°F  
pH 10 - 10.3  
Evaporation Rate NA  
Odor Mild  
Vapor Pressure NA  
Vapor Density NA  
Specific Gravity 1.04 - 1.05  
VOC None  
Weight per Gallon 8.65 - 8.75  
Solubility in Water Infinite

**Contains Alkanolamines** – Do not add solutions containing sodium nitrite to FLC-215. Always read the Material Safety Data Sheet before using this product.

**Packaging and Handling** – FLC-215 is a liquid packed in non-returnable drums, Tote Bins, Pails, and Bulk. Refer to the Material Safety Data Sheet for suitable materials of construction, for handling, and storing of this product. Observe all safety precautions shown on the label and in the Material Safety Data Sheet.

Health	1
Flammability	1
Reactivity	0
Personal Protection	B

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