



## Application

### **CIMFREE® VG-920M** (formerly CX-920A)

*Water-Soluble Vegetable-based Metalworking Fluid*

**CIMFREE® VG-920M** metalworking fluid is recommended for a wide variety of medium to heavy-duty machining and grinding operations including turning, drilling, tapping, and reaming.

**Metals:** Carbon Steels, High Speed Steel, Cast Steels, Alloy Steels, Tool Steel, Stainless Steel, Cast Iron, Aluminum, Bronze, Brass, Copper

**Duty Range:** Medium to heavy-duty operations.

## Features and Benefits

**CIMFREE® VG-920M** contains no mineral oil, nonylphenol ethoxylates or chlorine.

**Environmentally Friendly “Green”** - utilizes vegetable oil in the concentrate, not mineral oil.

**Excellent Lubricity** - provides good lubrication for both machining and grinding operations - provides excellent tool life and surface finishes.

**Excellent Biological Control** - maintains control of bacteria and mold, resulting in extended fluid life.

**Excellent Corrosion Control** - controls ferrous and non-ferrous corrosion on parts and machine components.

**Operator Friendly** - mild to skin - easy to mix - low foaming - pleasant odor - fluid mixes are very stable.

**Machine Friendly** - cleaner machines and work areas create a more pleasant work environment – residue removable with water or alkaline cleaners - no solvent degreasers required as with straight oils.

**Economical** - suitable for a broad range of metals and operations



## Recommended Starting Dilutions

## Typical Physical and Chemical Properties

### **CIMFREE® VG-920M** (formerly CX-920A)

*Water-Soluble Vegetable-based Metalworking Fluid*

#### **FOR INDUSTRIAL USE ONLY**

**Use between 5.0% (1:20) and 10.0% (1:10) for machining and grinding ferrous and nonferrous metals.**

**CIMFREE® VG-920M** is to be mixed with water for use (add concentrate to water).

Add no other substances to the concentrate or mix unless approved by CIMCOOL® Technical Services. Not recommended for use with magnesium or alloyed magnesium.

**For concentration analysis**, use the MI Titration Procedure, Non-Solvent Titration Procedure, Total Alkalinity Titration Procedure, or Refractometer.

Physical State .....	Liquid
Appearance and odor .....	Slightly hazy; chemical
Colors available .....	undyed
Solubility in water .....	100% miscible
Weight, lb/gal, 60°F (15.6°C) .....	8.60
Specific gravity, (H <sub>2</sub> O = 1).....	1.030
Boiling point, °F (°C) .....	212 (100)
Flash point, COC, °F (°C) .....	none; self-extinguishing
Fire point, COC, °F (°C).....	NA
Extinguishing media.....	NA
Unusual fire & explosion hazards .....	None
Freezing point (or pour point), °F (°C).....	24 (-4.4)

If frozen, product separates. Thaw completely at room temperature and stir thoroughly.

pH, concentrate.....	9.2
pH, 1:20 (5%) mix, typical operating conditions .....	8.8
Total chlorine/chloride, wt%, calculated .....	0.00 / < 50 ppm
Total sulfur, wt%, calculated .....	0.00
Silicones .....	None

Available in 5-gallon pails, 55-gallon drums, and bulk containers.

**REFRACTOMETER FACTOR** = 2.2 Multiply the scale reading obtained on your CIMCOOL® Metalworking Fluid or other acceptable refractometer by the Refractometer Factor to obtain the mix concentration in percent.

**NOTE:** Calibrate the refractometer so that it reads 0.0 with water, before testing the sample mix. Remove gross contaminants from the sample mix before testing.

For additional information concerning **CIMFREE® VG-920M** refer to its OSHA MSDS or contact CIMCOOL Technical Services at 1-513-458-8199. For Reprints / Updates visit [www.cimcool.com](http://www.cimcool.com) or contact your Milacron Representative.

Minor formulation changes or normal variations in the manufacture of this product may cause slight variances in the data presented on this sheet.  
Milacron Marketing Company, Cincinnati, Ohio 45209

