



CITGO CITCOOL® SS-GP

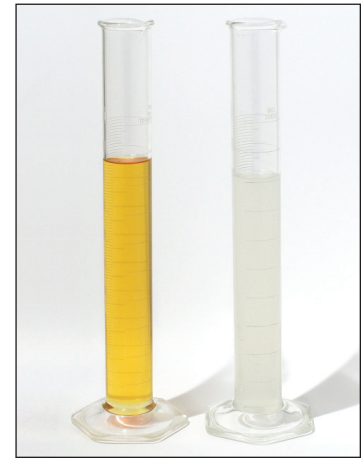
Date 06/15

DESCRIPTION: CITGO CITCOOL SS-GP is a general purpose, semi-translucent, low oil content, semi-synthetic fluid designed for dilution in water to produce a metalworking coolant for use in a variety of general machining operations.

- FEATURES:**
- Forms stable emulsions in various water hardness up to 1000ppm
 - Low foaming tendencies
 - Low oil content
 - Free of chlorine, secondary amines, phenols, nitrates, PCB's, and heavy metals

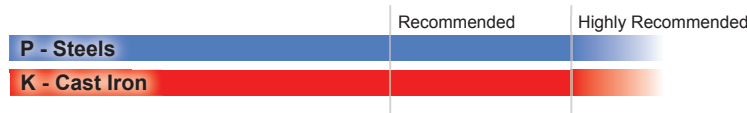
- BENEFITS:**
- Product performance is constant and machine remains clean
 - Reliable in-service performance especially in higher pressure coolant delivery systems
 - Longer sump life
 - Ease of disposal and friendly work environments

APPLICATIONS: CITGO CITCOOL SS-GP is recommended for light-duty, general machining including thread cutting and forming, deep hole drilling and boring, reaming, and grinding of cast irons, ferrous alloys and stainless steel.

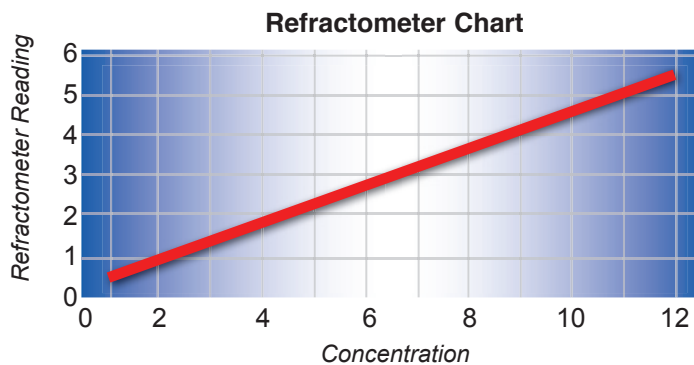


Concentrate Diluted with Water

Material Compatibility



*Not recommended for aluminum and copper alloys.



Refractometer Reading at 10% = 4.5 °Brix
 Refractometer Factor = 2.22

(Continued)



CITGO CITCOOL® SS-GP

Date 06/15 - (Continued)

TYPICAL PROPERTIES - CITGO CITCOOL® SS-GP

Material Code	639334001
Appearance, Concentrate (neat)	Yellow Fluid
Dilution (5% in DI water)	Semi-Translucent
Gravity, Specific, ASTM D 1298, 60/60°F	1.01
Mineral Oil Content %	10
pH at 3% concentration	9.4
Defoaming mL (5% in 50 ppm water)	Nil (20 sec.)

METAL MACHINABILITY GROUPS⁽¹⁾

	1 Non-Ferrous, Soft Metals ⁽²⁾	2 Nickel Alloys, Nitalloy Steels, Cast Irons and Alloy Steels (up to 200 Brinell)	3 Stainless Steels, “Monel” Metals, Cast Irons and Alloy Steels (200 to 300 Brinell)	4 Titanium Alloys, High Tensile Nickel Alloys, Austenitic Stainless Steels, Tool Steel and High Tensile Alloy Steels (300 to 400 Brinell)
Machining Operation				
Turning, Boring, Milling, Forming, Drilling, Sawing	5-7%	5-7%	8-10%	8-10%
Tapping, Thread Rolling, Reaming, Screw Cutting, Broaching	5-7%	5-7%	8-10%	8-10%
Gear Shaping, Form and Thread Milling, Shaving, Hobbing, and Trepanning	5-7%	5-7%	8-10%	8-10%
Internal and External Grinding, Form and Thread Grinding	5-7%	5-7%	5-7%	5-7%
Stamping	10-20%	10-20%	10-20%	10-20%

Notes: (1) Dilution ratios shown are approximate and may require higher or lower water concentrations depending on a number of factors including the type of metal cut, machine speed, the severity of the operation, metal hardness, etc.

(2) CITCOOL SS-GP is not recommended for machining aluminum alloys or magnesium (due to possible staining).

CITGO and CITCOOL are registered trademarks of CITGO Petroleum Corporation. All other registered trademarks or trademarks are the property of their respective owners.