



# PRO-CHEM-CO, INC.

# TECHNICAL DATA

## PRO-CUT 411

### MEDIUM-DUTY SEMISYNTHETIC COOLANT

#### DESCRIPTION:

PRO-CUT 411 COOLANT has been formulated to **machine** and **grind** both ferrous and non-ferrous metals. PRO-CUT 411 combines the lubricity of a soluble oil with the cleanliness of a synthetic coolant in “**one**” product. PRO-CUT 411 forms a “microemulsion” in water whose small particle size optimizes machinability and sumplife.

#### BENEFITS:

- Good toolife
- Outstanding corrosion control.
- Excellent part finishes especially on aluminum alloys.
- Bioresistant to bacteria, molds, and yeast.
- Good tramp oil rejection.
- Excellent cleanliness – keeps machines & parts clean.
- Versatile – one “**all purpose**” coolant.
- Stable – performs well in hard or soft waters.

#### OPERATIONS:

- |                   |                              |                       |
|-------------------|------------------------------|-----------------------|
| • CNC Machining   | • Tube & Pipe Rollforming    | • Central Systems     |
| • Boring/Reaming  | • Surface & Finish Grinding  | • FMS                 |
| • Sawing/Cut-off  | • Milling/Drilling/Profiling | • Light-duty Stamping |
| • Turning Centers | • Tapping                    | • Thread Rolling      |

**DIRECTIONS FOR USE:**

PRO-CUT 411 forms a “translucent” microemulsion when added to water, which is stable at all proportions. The sump should be cleaned with PRO-CHEM-CO machine cleaner and rinsed **before** adding coolant. The proper mixing ratio depends on your operation, metal(s) coolant system and application. The concentration chart below offers a good starting point.

<b>Recommended Starting Dilutions</b>				
<b>OPERATIONS</b>	<b>CARBON STEELS &amp; CAST IRONS</b>	<b>TOOL STEELS</b>	<b>ALUMINUM ALLOYS</b>	<b>HIGH ALLOYS &amp; STAINLESS STEELS</b>
Grinding	3% - 5% (1:33 - 1:20)	4% - 5% (1:25 - 1:20)	3% - 4% (1:33 - 1:25)	4% - 5% (1:25 - 1:20)
CNC Machining	5% - 6% (1:20 - 1:17)	5% - 7% (1:20 - 1:14)	5% - 6% (1:20 - 1:17)	5% - 10% (1:20 - 1:14)
Milling/Drilling Turning Centers Sawing	5% - 6% (1:20 - 1:17)	5% - 7% (1:20 - 1:14)	4% - 7% (1:25 - 1:14)	5% - 8% (1:20 - 1:14)
Tapping/Reaming Boring/Broaching Screw Machine	6% - 8% (1:17 - 1:12)	7% - 10% (1:14 - 1:10)	5% - 8% (1:20 - 1:12)	7% - 10% (1:14 - 1:10)

**Note:**

We always recommend the use of a refractometer and good coolant management practices.

**PROPERTIES:**

Appearance ----- Amber Liquid  
Odor ----- Mild  
Solubility ----- Emulsifiable at All Proportions  
pH(5%) ----- 10.0  
Specific Gravity ----- 1.028

**PACKAGING:**

PRO-CUT 411 is available in 5-gallon pails, 55-gallon drums, totes and bulk.