



PRO-CHEM-CO, INC.

TECHNICAL DATA

PRO-CUT 411C

MEDIUM-DUTY SEMISYNTHETIC COOLANT

DESCRIPTION:

PRO-CUT 411C is a chlorinated semisynthetic coolant that has been formulated to machine and grind both ferrous and non-ferrous metals. PRO-CUT 411C combines the lubricity of a soluble oil with the cleanliness of a synthetic coolant in “one” product. PRO-CUT 411C 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.
- Contains chlorine to increase EP properties.

OPERATIONS:

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

DIRECTIONS FOR USE:

PRO-CUT 411C 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.

Recommended Starting Dilutions				
OPERATIONS	CARBON STEELS & CAST IRONS	TOOL STEELS	ALUMINUM ALLOYS	HIGH ALLOYS & STAINLESS STEELS
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	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 ----- Hazy Amber Liquid
Odor ----- Mild
Solubility ----- Emulsifiable at All Proportions
pH(5%) ----- 9.9
Specific Gravity ----- 0.995
Refractometer Factor ----- 2.5

PACKAGING:

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