

## Product Information

## UNICOOL 427

### PREMIUM SEMI SYNTHETIC COOLANT

#### Product Description

**Unicool 427** is a heavy duty semi-synthetic metalworking fluid designed for machining and grinding of steel, cast aluminum, and aluminum-magnesium alloys. **Unicool 427** contains a combination lubricity and EP package for use in a variety of machining operations. **Unicool 427** can effectively be employed in high pressure, high volume CNC machining due to its excellent anti-foaming characteristics.

#### Features and Benefits

- Excellent low foam characteristics
- Good parts and machine rust protection
- Does not stain aluminum
- Contains unique lubricity agents designed for high performance on steel and aluminum
- Rejects hydraulic and other tramp oils
- Does not contain chlorine, triazine, or secondary amines

#### Recommended Use and Concentrations

**Unicool 427** should be diluted with demineralized (RO or DI) water. If desired, your DCT representative can arrange laboratory water testing. Makeup for evaporation may be best accomplished with DI or RO water to prevent hard water buildups. **Unicool 427** is recommended for use at 5 – 15% in the machining of cast iron, aluminum, steel and stainless in multiple operations including grinding, drilling, milling, turning, tapping and broaching. Higher concentrations may also be used for one-of-a-kind jobs within the plant. Product concentration is easily controlled by refractometer. Product pH and bio-control are typically maintained by product makeup without the addition of additives.

#### Typical Characteristics

Concentrate	Unit	Test Method	Value
Appearance	Visual	Visual	Clear Golden Liquid
Specific Gravity	N/A	Calculated from Density	1.01
Density	lbs/gal	ASTM D1475	8.43
Solubility in water	Visual	Visual	Soluble
pH	N/A	ASTM E70-97	9.81
Refractometer Factor	N/A	Calculated	1.31
Product identification	N/A	N/A	DCT201810

#### HANDLING AND STORAGE

It is recommended that **Unicool 427** be used within one year. Maximum shelf life for this product is one year under original seal. In use dilutions should be made using demineralized water (for example: DI or RO water).

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Diversified Chemical Technologies 15477 Woodrow Wilson Detroit, MI 48238

Contact your salesman directly for further information or a trial of DCT products.

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## Concentration Control

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Use of a handheld refractometer is suggested to manage coolant concentration.

Refractometer Reading	% Concentration
0.8	1
1.1	1.5
1.5	2
1.9	2.5
2.3	3
2.7	3.5
3.1	4
3.4	4.5
3.8	5
4.2	5.5
4.6	6
5.0	6.5
5.4	7
5.7	7.5
6.1	8
6.5	8.5
6.9	9
7.3	9.5
7.6	10
8.4	11
9.2	12
9.9	13
10.7	14
11.5	15
15.3	20

“Refractometer Factor” x “Refractometer Reading” = % Concentration

i.e. 1.31 x 3.8 = 5.0%

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