MicroC® 4200

PRODUCT INFORMATION

MicroC® 4200 is a proprietary, non-hazardous, green chemical designed specifically for use as a carbon source for biological contaminant removal applications in industrial water/wastewater treatment.

COST EFFECTIVENESS

- Best value among non-hazardous alternative carbon sources

NON-HAZARDOUS

- Eliminates flammability and toxicity concerns of traditional chemicals such as methanol
- Provides capital cost savings vs. installation of flammable liquid storage and feed system
- Non-hazardous product enables rapid and flexible deployment of carbon augmentation solutions

PERFORMANCE ADVANTAGES

- Rapid start-up/acclimation
- Superior cold weather performance

ENVIRONMENTALLY SUSTAINABLE

- Derived from abundant, renewable resources produced in the United States vs. largely imported fossil-fuel derived carbon sources (methanol)
- MicroC® 4200 is a USDA Certified Biobased Product
- MicroC® 4200 contains 100% USDA certified biobased content.

CONSISTENT & SUPERIOR QUALITY

- Rigorous end to end quality control program
- Consistent Chemical Oxygen Demand (COD) values
- No product degradation during long-term storage

VALIDATED PERFORMANCE

- MicroC® products in use at over 550 plants in North America
- Performance validated by leading equipment/process suppliers, consulting engineers and academic institutions
- Full scale, documented performance validation for:
  - Nitrate removal
  - Enhanced Biological Phosphorus Removal (EBPR)
  - Metals removal
  - BOD augmentation
  - Perchlorate removal
  - Fixed film biological processes (i.e. denitrification filters)
  - Startup/acclimation dynamics
  - Cold weather performance
- Denitrification rates and kinetic parameters determined by Northeastern University

TECHNICAL SERVICES

- Application guidance from team of BNR/contaminant removal experts
- Dedicated support to ensure achievement of contaminant removal goals

SUPPLY CHAIN EXPERIENCE

- 20 nationwide MicroC® manufacturing facilities provides redundancy and flexibility, reducing the risk of supply and quality interruptions even during drastic demand changes
- Extensive multi-industry raw material sourcing capability and vast storage infrastructure facilitates ability offer long term, fixed pricing
- An expansive supply chain infrastructure designed for proximity to customers, reduces transportation costs and improves responsiveness

PACKAGING

- Bulk (1000-4500 gallon)*
- 265-gallon IBC/tote
- 55-gallon drum
- 30-gallon drum
- 5-gallon pail

*Maximum volume 4800 gallons in some markets

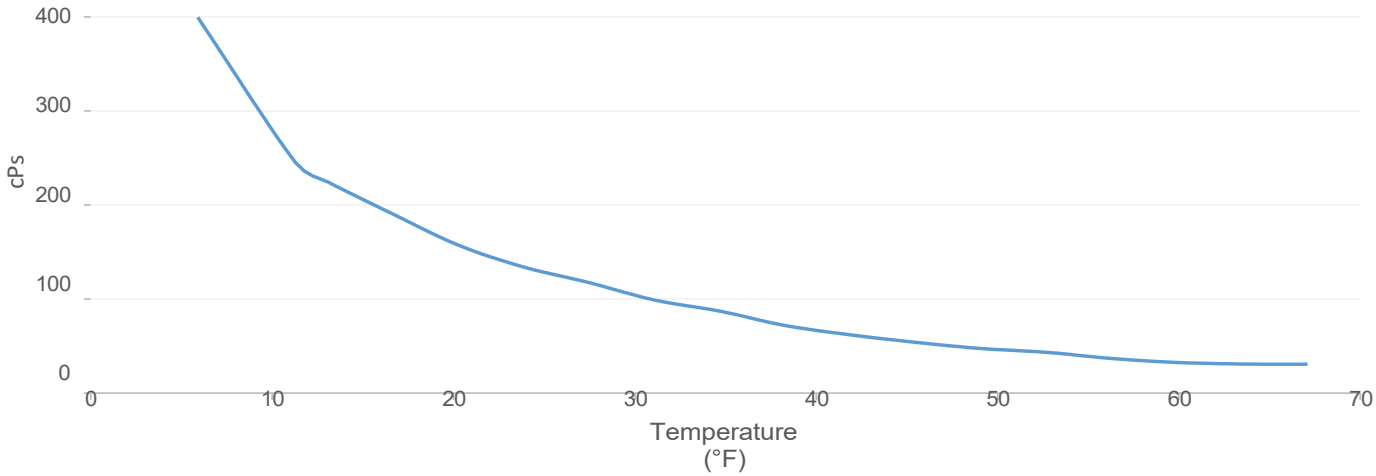
EOSi

Rev. 11/24

TECHNICAL SPECIFICATIONS

PROPERTY	SPECIFICATIONS	TYPICAL VALUE	TEST METHOD
Glycerin Content	70% - 74%	71%	ASTM D7637-10
Methanol Content	0.3%, max	< 0.1%	EN 14110
Fatty Acid Content	1.00%, max	0.3%	NIR
COD (mg/L)	1,050,000 - 1,250,000	1,100,000	ASTM D1252
pH	4.0 - 11.0	6	ASTM E-70
Specific Gravity at 20°C	1.19 - 1.30	1.22	ASTM D891-00
Bulk Density (lbs/gal)	9.92 - 10.84	10.2	ASTM D891-00
Viscosity (cPs) at 20°C	75, max	45	ASTM D2196
Flash Point	None to 93°C	None to Boil	ASTM D93
Freezing Point (°C)	-18, max	-35	ASTM D1177

TEMPERATURE / VISCOSITY RELATIONSHIP



Note: Although product freezes below 0°F, viscosity analyses stopped at 0°F due to practical considerations

USDA CERTIFIED BIOBASED PRODUCT
PRODUCT 100%