



Flexiclean™ CC-307

Overview

- Unique Polymer/Surfactant Detergent System for Carpet and Upholstery Cleaning Applications
- Outstanding Cleaning and Detergency Properties
- Eliminates Rapid Resoiling Caused by Traditional Surfactants
- Dries to a Brittle Residue
- Enhances Soil Pick-Up During Vacuuming
- Provides Anti-Soil Redeposition Properties
- Does Not Attract Soil After Cleaning
- Enhances Stain Resistance
- Provides Enhanced Wetting and Penetration
- Use One Economical Product for Carpet and Upholstery
- Ultra Low VOC Formulations Possible
- Easily Meets CARB Regulations
- Low Foaming Silicone-Free Formulations

Applications

- Carpet and Upholstery Spot Remover
- Hot Water Extraction Carpet Cleaner
- Traffic Lane Cleaner
- Carpet Pre-Spotter
- Spin Bonnet Shampoo

Technical Information

Many carpet cleaning formulations are highly alkaline detergents, (many times nonionic surfactant based), that leave tacky, soil attracting residues on the carpet. These high alkaline detergents also remove some or all of the stain resistance built into the carpet by the manufacturer. Even though these formulations effectively clean the carpet, they can actually damage the carpet and cause the newly cleaned carpet to resoil rapidly. This can result in complaints from asset owners who have had their

carpets professionally cleaned, only to find that their carpets get dirty and grey soon after cleaning. A common complaint related to carpet and upholstery spot cleaners is that after removing a spot or stain from a fabric, it appears that the spot returns over the next few days or weeks, only bigger than the original stain. This is caused by the residual detergent left behind by the spot cleaner which now attracts oily and particulate soil. The stain didn't come back. Rather, there is a new soil induced stain appearing due to the soil attraction of the spot cleaner residue. The use of Flexiclean CC-307 and Flexiwet™ NF in upholstery and carpet cleaning formulations eliminates these problems. Additionally, cleaning products based on these technologies actually enhance the soil and stain resistance of the cleaned fabrics.

Flexiwet NF is a unique low/no foam fluorinated surfactant that will also defoam most systems. The addition of Flexiwet NF provides several valuable benefits in carpet cleaning applications, including:

- Increased Wetting and Penetration (Especially on tough to wet hydrophobic surfaces)
- Improved Cleaning and Soil /Stain Removal
- Elimination of Steps to Add Defoamers Used in Extraction Cleaning
- Flexiwet NF's defoaming properties make it possible to eliminate the problems associated with using silicone based defoamers.
- Enhanced Anti-Soiling Properties

Note: The amount of Flexiwet NF can be adjusted depending on cost/performance properties desired. EDTA can be adjusted to suit application. EDTA should be substituted with Sodium Citrate in formulations for export.

FORMULARY

Carpet and Upholstery Cleaner Super Concentrate

Water	Q.S.
EDTA (40%)	4.0%
Flexiclean CC-307	35.0%
SXS 40%	4.0%
Flexiwet NF	0.10%

pH 7.0-9.0

- Add ingredients in order listed and blend after each addition
- Typically 3% Flexiwet NF in this super concentrate is sufficient to suppress foaming in most extraction cleaning equipment
- Add fragrance and preservative as desired

Formulating Hints

The above super concentrate can be used to quickly and economically produce a full line of carpet and upholstery cleaning products, or the cleaners can be formulated directly if desired. Addition of builders or solvents is possible if desired. Add fragrance as desired.

Spot/Traffic Lane/Bonnet Cleaner

Super Concentrate	4.0-8.0%
Water	Q.S.

Use as is

Extraction Cleaner

Super Concentrate	6.0-14.0%
Water	Q.S.

Dilution: 2-4 fluid ounces per gallon of water in extraction machine reservoir

Note: The pH of the final product should be between 7.0 -9.0 in order to optimize cleaning. High pH formulations (>10) may damage treated carpets.

Formulating Directly From Raw Materials

Starting formulation for low foam extraction cleaners: Use approximately 9% Flexiwet NF on the weight of Flexiclean CC-307 to suppress foam in the capture tank.

Ingredient									
Water	65.57%	80.90%	82.85%	84.70%	86.76%	88.80%	90.84%	92.88%	
EDTA (40%)	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	
Flexiclean CC-307	27.10%	13.00%	11.20%	9.50%	7.70%	6.00%	4.30%	2.60%	
SXS-40	0.99%	0.99%	0.99%	0.99%	0.88%	0.69%	0.49%	0.30%	
Flexiwet NF	2.34%	1.11%	0.96%	0.81%	0.66%	0.51%	0.37%	0.22%	

Demonstration

Compare the Flexiclean CC-307 formulation to your current cleaner as follows:

Extraction clean identical carpet samples with your current cleaner and Flexiclean CC-307 formulation respectively. Using ASTM Test Method 6540, soil the samples and compare results. In laboratory tests comparing commercially available cleaning formulas, Flexiclean CC-307 soiled significantly less than the competitive products. The photos demonstrate the benefit of the anti-resoil chemistry in Flexiclean CC-307.

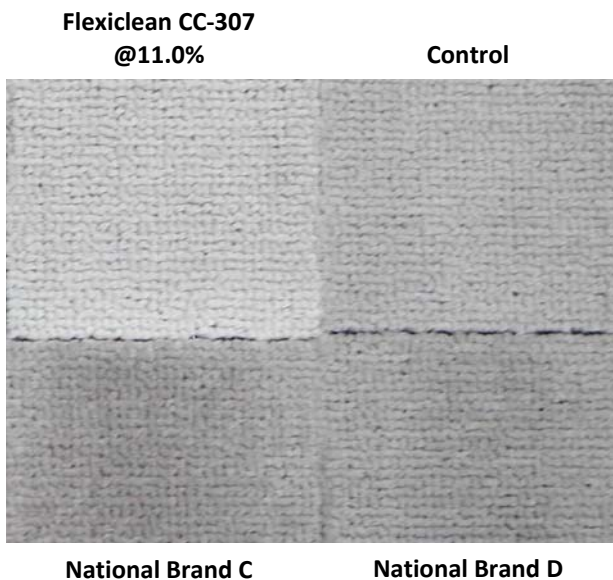
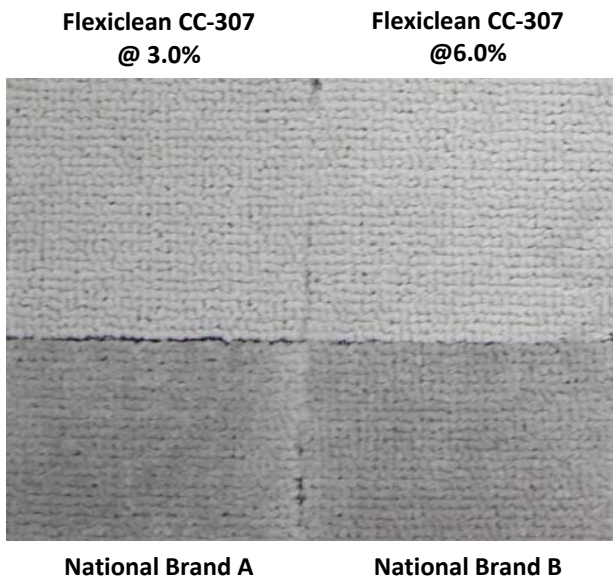
Typical Properties

Appearance	Clear, pale yellow to pale amber liquid
Density @ 25°C	1.13 +/- 0.02 g/mL (9.4 lbs/gal)
pH (as is)	7.0 - 9.0
Water Solubility	Soluble
Boiling Point	Approx. 100°C

Packaging and Handling

Flexiclean CC-307 is available in 275 gallon totes (Net Wt. 2400 lbs), 55 gallon drums (Net Wt. 480 lbs), and 5 gallon pails (Net Wt. 40 lbs).

DOT Classification is Non Regulated.



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