



# Flexisurf™ X-5

Multifunctional Surfactant

## Overview

- High active multifunctional surfactant in water
- Acid and alkali stable
- Foam booster and grease cutter
- Effective anti-stat performance
- Compatible with nonionic, cationic and amphoteric surfactants
- Enhanced activity in acidic cleaners
- Versatile surfactant for wetting, emulsification, solubilizing and emulsification in acid, neutral and alkaline formulations
- Fast wetting and spreading on oily surfaces for fast cleaning
- Optimized chemistry for break-up of oily particulate soils and road film
- WERCS ID number: WPS1208269
- WERCS Validation number: 1208269

## Applications

- HI&I Hard surface cleaners
- Concentrated Liquid, high foaming formulations (acid or alkaline)
- Fine fabric detergents
- Spray & Wipe cleaners
- Ready-to-Use hard surface cleaning wipes
- Carpet spotters
- Textile applications: lubricant, emulsifier, wetting agent and dye dispersant
- Car and Truck touchless vehicle wash
- Soak and pre-soak formulations

## Technical Information

Flexisurf X-5 represents years of experience in hard surface and solution cleaning product development. Based on optimized nonionic chemistry, Flexisurf X-5 is the ideal replacement for alkylphenol ethoxylates, and a step up in performance in replacing linear alcohol ethoxylate surfactants.

Optimized for use in solvent-free and low VOC cleaners & degreasers, Flexisurf X-5 readily breaks-up greasy particulate soils, and rinses freely for low streak/smear hard surface cleaning products.

In scrubless cleaning applications, Flexisurf X-5 is recommended as a stand-alone surfactant, with penetrating, fast wetting soil break-up and removal performance exceeding that of higher cost alternatives.

## Formulary

Flexisurf X-5 is stable in acids and alkalis, and compatible with nonionic, cationic and amphoteric surfactants.

Flexisurf X-5 is water soluble, low in color and odor, and free of alkylphenol ethoxylates and VOCs. Non-hazardous and non-sensitizing, use X-5 in Consumer Spray & Wipe multi-surface cleaners and in convenient hard surface wipes.

Effective at 0.05-0.5% in Ready-to-Use formulations, Flexisurf X-5 is an economical yet high performance alternative to the most commonly used surfactant systems.

## Typical Properties

PROPERTY	VALUE
Appearance	Clear to slightly hazy, pale yellow to amber liquid
Odor	Mild
Ionic character	Nonionic
Water solubility	Soluble
pH (5% aq.)	7.5 to 9.5
Density@25°C	0.99±0.02
Boiling Point	100°C
Flash point	None (aqueous)
Storage	Freeze/thaw stable
Shelf life	12 months

## Packaging and Handling

Flexisurf X-5 is available in:  
275 gallon totes (Net Wt. 2250 lbs)  
55 gallon plastic drums (Net Wt. 450 lbs)  
5 gallon pails (Net Wt. 40 lbs).

Refer to the Safety Data Sheet (SDS) for information on the safe use, handling, and disposal of this product.

DOT Classification: Non-Regulated

Whether you're looking for a replacement product, or an ingredient for a specific attribute, give us a call. We can provide assistance based upon your particular formulation requirements and composition; please feel free to contact us.

*Please refer to back page for important*

## Flexisurf X-5: Multifunctional surfactant

Flexisurf X-5 is based on optimized nonionic chemistry, proven as an effective grease cutter for low to no VOC cleaners and degreasers. With its unique anti-static, dispersing, solubilizing and foaming properties, X-5 is a unique multifunctional product for use in wide range of applications including: textile scours and anti-stats, water based degreasers, vehicle cleaners and household cleaners.

Use Flexisurf X-5 as a grease cutting emulsifier in degreasers, pine oil and d-limonene Cleaners, and a road film breaking anti-stat in vehicle cleaners. Use as an anti-stat in textile processing operations, and as an emulsifier in formulated sanitation products. Flexisurf X-5 functions as a hydrotrope and grease dispersing agent to impart superior degreasing properties for water based degreasers.

Other applications include corrosion inhibitors, pipeline drag reducers, rheology modifiers and organoclay suspensions. For matrix acidizing, X-5 is an effective coupling agent for anti-sludge, iron control, and emulsion breaking ingredients in 28% HCl.

*The following example formulations illustrate the flexibility of Flexisurf X-5:*

Road Film Releasing Vehicle Wash	
Ingredient	Wt. %
Water	to 100
Na <sub>3</sub> NTA, 40%	10
Na Metasilicate 5H <sub>2</sub> O	1
Flexisurf X-5	5
Use at 4-8 ounces per gallon	

Glass and Multi-Surface Hard surface Cleaner	
Ingredient	Wt. %
Water	to 100
Na <sub>4</sub> EDTA, 38%	0.1
Flexisurf X-5	0.4
Glycerin <sup>(1)</sup>	0.2
Monoethanolamine <sup>(2)</sup>	0.4
Ethyleneglycol monoethyl ether <sup>(3)</sup>	0.25
Isopropanol	1.5
Thetawet FS-8050 <sup>(4)</sup>	0.1
Dye/Fragrance	q.s.
Ready-to-Use	
<b>Formulation notes:</b>	
(1) provides slip for ease of wiping	
(2) provides non-streak alkalinity for grease cutting performance	
(3) moderates evaporation for streak resistance-consider hexanol or ethyleneglycol monobutyl ether as alternative	
(4) for fast even wetting of surfaces	
Commercial Grade Descaling Acid Cleaner	
Ingredient	Wt. %
Water	to 100
Flexisorb AN-668 <sup>(5)</sup>	35-50
Flexisurf X-5	3
Use at 2-4 ounces per gallon	
<b>Formulation note:</b>	
(5) acid replacement	

This information relates only to the specific material referred to herein and not to its use in combination with any other material or in any process, unless explicitly stated herein. Such information is, to the best of our knowledge and belief, accurate and reliable as of the date compiled; however, no warranty, guarantee or other representation is made as to its accuracy, reliability, or completeness, or regarding any liabilities arising from others' intellectual property rights. ID# 20200218