



# Flexiguard™ FR-42

Non-halogenated flame retardant

## Overview

- Flame Retardant treatment renders fabrics, paper and wood products non-flammable
- Works on most synthetic, naturals and fabric blends
- Water soluble, low VOC, Non-Regulated by DOT
- Properly treated fabrics will meet requirements established by the Office of the State Fire Marshal of the State of California
- Properly treated fabrics will meet NFPA Standards including NFPA 267-Motor Vehicle Safety Standard 302, NFPA 703 Standard for Fire Retardant Impregnated Wood and Building Materials, NFPA 701, and California Title 19 for Treated Fabric
- Compatible with latex backings
- Provides excellent antistatic properties in addition to flame retardancy.

## Applications

- Household fabrics
- Draperies
- Upholstery fabrics
- Mattresses
- Cellulosics
- Paper
- Wood products

## Technical Information

Flexiguard FR-42 is a water based intumescent flame retardant that can be easily applied to both cellulosic and synthetic fabrics to prevent flame spread.

Flame retardants are an essential element for the safety of products around us. Fires are far less likely to start from small flames or electrical faults if materials are treated to resist fire spread from these ignition sources. Intumescent flame retardant treatment stops flame spread over treated materials by creating a thermal insulation char barrier between the burning and unburned material, slowing the heat transfer to the unburned fuel.

A wide variety of fabrics (acrylics, cellulose acetates, polyamides, polyesters, wools, and blends thereof) can be successfully treated with Flexiguard FR-42 to surpass the flame retardant requirements of most States and municipalities. Fabrics treated appropriately by manufacturers have passed ASTM D1230-94 (2001), the Standard Test Method for Flammability of Apparel Textiles.

## Formulary

Flexiguard FR-42 is a 42% active aqueous concentrate.

Typical use dilutions range from 25 to 40% in water, used at 10-20% wet pick-up (wpu) or applied at 2-3 oz. per square yard.

## Typical Properties

| PROPERTY          | VALUE              |
|-------------------|--------------------|
| Appearance        | Pale yellow liquid |
| Odor              | Mild               |
| Ionic character   | Anionic            |
| Water solubility  | Soluble            |
| Active content, % | 42±1               |
| pH (as is)        | 7.0-7.3            |
| Density@25°C      | 1.25±0.02 g/ml     |
| Boiling Point     | Approx. 100°C      |
| Flash point       | None (aqueous)     |
| Storage           | Freeze/thaw stable |
| Shelf life        | 12 months          |

## Packaging and Handling

Flexiguard FR-42 is available in:  
275 gallon totes (Net Wt. 2800 lbs)  
55 gallon plastic drums (Net Wt. 560 lbs)  
5 gallon pails (Net Wt. 40 lbs)

Refer to Material Safety Data Sheet (MSDS) 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 information*

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Please note that this product is not suitable for the treatment of children's sleepwear, which is covered by a separate standard (ASTM D 6545-10, Standard Test Method for Flammability of Textiles Used in Children's Sleepwear) in order to fully comply with CFR Part 1610. This product is water soluble and therefore not durable to aqueous cleaning processes, and must be reapplied after laundering or extraction cleaning to maintain performance.

California Technical Bulletin 117 provides a series of tests to examine resistance to ignition when subjected to open flames. Proper application of Flexiguard FR-42 provides flame resistance adequate to pass these tests. As fabric differences and treat rates can dramatically impact results, the treated fabrics must be tested after treatment to ensure that they meet the specific standard of relevance for the specific application.

**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# 20130916**