



# Flexisorb™ SFS 54

Stabilizer for chrome esters for food contact paper

## Overview

- Stabilizer for chrome esters used in the treatment of food contact paper
- Improves water repellence and release properties
- Can be applied in the size press, gravure or coating roll, calendar stack water box, using spray or immersion techniques.
- VOC-free
- Does not contain animal derivatives
- Flexisorb SFS-54 components are permitted as constituents in paper and paperboard used for food packaging and are included on a list of substances affirmed for GRAS/CFR 184.1923  
186.1756  
186.1316

**Carefully review FDA compliance for your use.**

## Uses

- Stabilizer for chrome esters used in the treatment of food contact paper and paperboard

## Technical Information

Flexisorb SFS-54 is a stabilizer for chrome esters used in the treatment of food contact paper and paperboard to improve water repellency and release properties.

This product is a concentrated mixture (about 54%) of urea and sodium formate in an aqueous solution.

## Application Methods

Flexisorb SFS-54 can be used in applications including the size press, gravure or coating roll, calendar stack water box, and using spray or immersion techniques.

**For Formulary information**, refer to the second page of this Technical Data Sheet.

## Typical Properties

PROPERTY	VALUE
Appearance	Clear liquid, colorless
Odor	None
pH	4.8 to 6.0
Solubility in Water	Soluble
% Solids	52.0 to 56.0
Density@25°C	1.22 ±0.02g/ml
Boiling Point	100°C (212°F)
Storage	Protect from freezing. Keep container tightly closed. Store between 35-90°F.
Incompatible materials	Strong oxidizers, and avoid contact with metals.
Shelf life	12 months

## Packaging and Handling

Flexisorb 54 is available in:  
55 gallon drums (Net Wt. 550 lbs)  
Totes (Net Wt. 2750 lbs.)

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

DOT Classification: Not 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**

## Flexisorb SFS-54

### Stabilizer for chrome esters for food contact paper

Flexisorb SFS-54 is a stabilizer for chrome esters for paper and paperboard. General formulation information is provided below:

Flexisorb SFS-54 and chrome ester product Application Bath Preparation Instructions	
Ingredient	Wt. %
Warm Water (80-100°F)	to 100
Chrome ester product (as received)	preferred quantity depending on use & performance
Flexisorb SFS-54 (urea-formate solution) for pH adjustment to pH 2.8-3.5	as needed

**Add Chrome ester product to warm water (80-100°F) which is already under agitation, and mix well until uniform.**

*(aqueous solutions of chrome esters are sensitive to polyvalent anions such as sulfate and particularly phosphate, although quantities normally present in hard water can be tolerated)*

**The pH of the diluted chrome ester product should be about 2.5.**

**For optimum results, raise the pH of the diluted chrome ester product to pH 2.8 - 3.5 using Flexisorb SFS-54 stabilizer.** For the pH adjustment, use either direct addition of the Flexisorb SFS-54 or a water dilution of the Flexisorb SFS-54.

**While mixing the diluted chrome ester product, slowly add the Flexisorb SFS-54 and continue mixing well. Do not add more water.**

Aqueous stabilized solutions of chrome ester product at pH 2.8 to 3.5 are generally stable for 24 hrs. Bath stability deteriorates as bath temperature increases above 80°F. External cooling should be provided if bath temperature reaches 110 °F. This solution has very poor bath stability at 120°F.

**Preferred application temperature is 80-100°F.**

**Drying for 5 minutes at room temperature will impart good sizing properties. Drying at elevated temperatures does not show a negative effect on sizing or release properties.**

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