

FORMALDEHYDE RESIN FINISH

_____ Name

_____ Date

also called... **urea formaldehyde resin** (DMU); **ethyleneurea melamine formaldehyde resin** (EUMF, Fixapret AC, 3-imidazolidinone, or triaminotriazine); **dimethylol dihydroxyethylene-urea resin** (DMDHEU, Fixapret CPN, 1,3-bis hydroxymethyl-4,5-dihydroxy-2-imidazolinone); **modified dimethyloldihydroxyethylene urea**, (glycolated DMDHEU or Fixapret ECO); and **dimethyl dihydroxyethylene urea** (Fixapret NFor 1,3-dimethyl-4,5-dihydroxyimidazolidione-2).

What is it?

For some uses, formaldehyde combines with another chemical to produce a resin. When used in fabric production, these resins reduce wrinkling, produce water resistance, toughen against weathering, or stiffen against thinning from wear.

What fabrics might have it?

“Permanent press”
Wrinkle-resistant
Easy care, “No-Iron”
“Wash & Wear”
Color-fast
Shrink-resistant knits
Cotton blends, Chintz
Cotton/polyester
Corduroy
Twill
Rayon, Rayon blend
Shrink-proof wool
Wool blend
Polypropylene (Olefin)
Acetate, Triacetate
Tencel A100
Suede
Chamois
Soft-dyed fleece
“Pigment dyed” (muted non-denim fabrics looking “pre-washed” or weathered)
“Pigment printed” (items like bed **sheets**, whose design is visible on one side only)
Lab coats and scrubs
Disposable gowns and masks
Work uniforms
Military uniforms
Baseball cap, Shin pads
Craft fabric
Upholstery and drapery fabric

How to avoid it:

Start by reading the labels in your clothes and linens. Look for labels with terms like those at the left. Set aside those items and avoid wearing them for at least one month to see if your skin problem improves.

Wear and buy only clothing labeled one of these:

- ◆ 100% silk
- ◆ 100% polyester
- ◆ 100% acrylic
- ◆ 100% nylon
- ◆ 100% linen (only easy-wrinkle unfinished)
- ◆ Flannel (if soft)
- ◆ Denim (jeans)
- ◆ Spandex
- ◆ Wool (*not* a blend, caution: may irritate)
- ◆ 100% cotton T-shirts (not “pigment-dyed”)
- ◆ Tencel LF
- ◆ Hemp
- ◆ Bamboo

Washing clothing will *not* eliminate formaldehyde resin nor reduce it enough to prevent a reaction. If you *must* wear clothing that has formaldehyde finish, choose cool, loose-fitting items. Wear protective under-garments made of one of the safe materials listed above. Wash all new textile products at least twice before using. It may help to triple wash new bed linens and clothing with a cupful of powdered milk before using.

(continued)

Dry cleaning and spray starch do not add formaldehyde. “Mercerized” and “Sanforized” refer to processes that do not use formaldehyde.

Allergic contact dermatitis from textile resins often occurs where clothing rubs the skin. The waist, middle and front of the thighs, back of the neck, and edges of the armpit fold are common sites. Furniture and bedding fabrics cause reactions at other sites of contact.

Since you are allergic, even low levels of formaldehyde may cause a flare. If your skin breaks out from a new product, do not wear it. Wait 3 weeks until you clear before you add another new item.

Other sources of exposure:

Contact may occur from applying orthopedic plaster casts which contain water-resistant formaldehyde resin. Dental professionals may come in contact with melamine formaldehyde resin in resin-reinforced plasters.

Exposure can come in other jobs:

- ◆ melamine paper impregnation for furniture and flooring
- ◆ lamination
- ◆ manufacture of tableware
- ◆ work with fiber resin composites
- ◆ impregnation of cellulosic material into fiberboard

What can you wear?

Clothing made and sold in Japan meets the strictest standards for low release of formaldehyde. An **Oeko-Tex** tag also means the fabric is safe.

The following stores and brands should be fine: Gap, Old Navy, Banana Republic, Liz Claiborne, Eddie Bauer, Cuddl Duds, Levi Strauss, Talbots, J Crew, Dockers Go-Khaki, Jockey or Hanro 100% cotton, Vermont Country Store, and Pure Cotton Comfort (www.eczemacllothing.com).

Additional formaldehyde-free alternatives:

Clothing

Organic cotton (*Only* organically grown cotton that has not been treated with textile resin during processing is safe.)

- 888-902-6886 www.cottonique.com
- 888-923-1373 www.bluecanoe.com
- 888-954-1551 www.cottonfieldusa.com
- 888-875-2233 www.kasperorganics.net
- 707-459-1207 www.organicattire.com
- 800-609-8593 www.organicclothes.com
- 360-466-4012 www.organic-matters.com
- 888-216-9917 www.organicselections.com

Cotton underwear (800-524-4949

www.decentexposures.com)

Silk underwear (800-648-7455 www.wintersilks.com)

Men’s dress shirts

Boll Organic (706-367-9834 www.bollorganic.com)

Custom shirt maker

Riddle McIntire 312-782-3317

Bed linens

All-natural organic cotton (Bed Bath & Beyond)

Cotton (888-424-2779 www.ahappyplanet.com)

Silk too (800-621-5545 www.allergyasthmatech.com)

Chemical-free towels

Lifekind organic (800-284-4983 www.lifekind.com)

OR scrubs

Soft as Silk (800-222-4445 www.jascouniform.com)

OR gowns

ProVent (800-600-4019 www.kappler.com)

Organic cotton fabric

(864-576-3730 www.greentextile.com)

OGP (806-428-3345 www.organiccottonplus.com)

Near Sea (877-573-2913 www.nearseanaturals.com)

More options found through www.oeko-tex.com