

Tosylamide Formaldehyde Resin

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TOSYLAMIDE FORMALDEHYDE RESIN is an allergen used in nail varnish. Despite the name, there is only a minute amount of free formaldehyde found in tosylamide formaldehyde resin, and it is the actual resin that is the allergen.¹ It is important to note that allergic reactions to tosylamide formaldehyde resin in nail polishes have been reported generally to develop at sites that are remote from the fingernails, such as around the mouth, chin, neck, eyelids, and genitalia.²

During the last 20 years, the prevalence of this allergen in the United States has been on the descent. In 1985, it was found to be the seventh most common allergen causing cosmetic-related allergic contact dermatitis.³ More recently, even though this allergen has been considered in the evaluation of eyelid dermatitis, it was found to be a minor factor.⁴ In this study, tosylamide formaldehyde resin represented only 1% of cases (4 of 268) whereas other studies have reported rates as high as 12%.⁵ The lower prevalence rates observed by the North American Contact Dermatitis Group may reflect the current availability of a larger number of tosylamide formaldehyde resin-free varnishes. Thus, the use of nail varnishes that substitute other substances for the resin may be a safer alternative for those who are allergic yet still wish to use nail varnish.

References

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Allergen Avoidance provides clinicians with high-quality up-to-date practical information to supply to patients about specific contact allergens.

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Tosylamide Formaldehyde Resin

What is it?

Tosylamide formaldehyde resin (TSFR-80) is a chemical substance that hardens as it dries. This nearly colorless material has a weak formaldehyde odor and is used in nail varnishes to facilitate adhesion, shine, rigidity, and flow in the application of the varnish to the nails. It helps the nail varnish “last” on the nails. Despite the similar names, the resin contains very little free formaldehyde. The resin itself can cause allergy. Synonyms of tosylamide formaldehyde resin include 4-toluenesulfonamide formaldehyde resin, benzenesulfonamide, polymer with formaldehyde.

Where is it found?

Tosylamide formaldehyde resin is found primarily in nail polish and lacquers. Various industrial adhesives also incorporate this resin; however, the relative high cost of the product limits its applications.

How can it be avoided?

Avoidance and ceased use of nail polishes and varnishes containing this resin are recommended. If the patient desires to use nail polish or varnish, a tosylamide formaldehyde resin-free alternative product could be substituted.

Varnishes Devoid of Tosylamide Formaldehyde Resin

Product Name	Company Web Site
Acquarella Nail Polish	http://www.acquarellapolish.com
Anise Nail Polish	http://www.anisecosmetics.com
Estee Lauder Pure Color Nail Lacquer	http://www.estelauder.com
Honeybee Gardens Nail Polish	http://www.honeybeegardens.com
Mary Kay Signature Top Coat	http://www.marykay.com/
Peace Keeper Nail Polish	http://www.iamapeacekeeper.com
Revlon Nail Polish	http://www.revlon.com
Zoya Nail Polish	http://www.artofbeauty.com

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