

Short Communication

Allergic contact dermatitis from epoxy propane

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Case Report

A 25-year-old electron microscopy technician had 2 acute episodes of contact dermatitis on her fingers. Patch testing to a standard series and a plastics and

glues series was negative, a workplace visit was made, and the following were sampled for further patch testing: epoxy propane (transitional solvent), embedding epoxy resin and hardener, glutaraldehyde, and certain photographic chemicals.

Further patch testing was positive at 2 and 4 days to epoxy propane (1% acet.), epichlorohydrin (1% acet.) and cycloaliphatic epoxy resin (diglycidyl ester of hexahydrophthalic acid), in the Chemotechnique epoxy series (0.5% pet.). 20 controls were negative to epoxy propane.

Comment

Contact allergy to the diglycidyl ester of hexahydrophthalic acid (Fig. 1) has previously been reported (1, 2), but not, to our knowledge, epoxy propane. Epoxy propane is similar in structure to epichlorohydrin (Fig. 2), differing by 1 Cl atom. This case re-emphasizes that compounds containing epoxy groups do not necessarily cross-react with the standard series epoxy resin; patients may also need patch testing to their own epoxy products.

References

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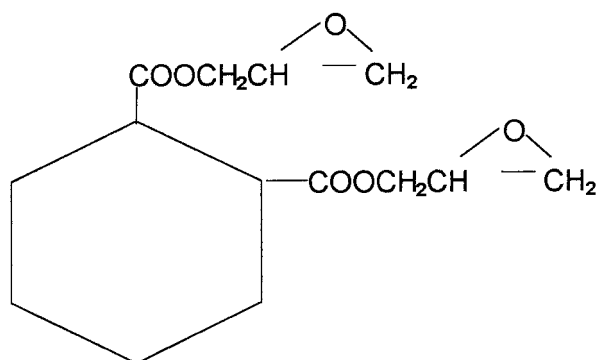


Fig. 1. Diglycidyl ester of hexahydrophthalic acid.

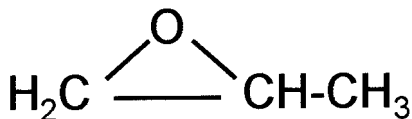


Fig. 2. Epoxy propane.