

cide occurred in March 1973 preceding the initial dermatitis.

The patient was treated by his physician with triamcinolone cream 0.1 % and self-medicated his hands with Pacquin® medicated cream, which contains ortho-phenylphenol.

Examination revealed patchy areas of depigmentation on the dorsum of the hands as well as on the volar surfaces of both wrists. Patch testing was performed and the patient developed a 2+ reaction at 48 h and 1 week to a solution of Carbyne diluted in mineral oil at a concentration of 1:10. Patch tests to our screening and preservative trays, which are similar to the North American Group, were negative at 48 h and 1 week. Patch tests to ortho-phenylphenol (0.1 and 1 %) in petrolatum and to the Pacquin medicated cream were also negative. Eighteen people have had no dermatitis or depigmentation to Carbyne (0.5 % or 1 %) in petrolatum. The patient did not develop depigmentation at the site of the patch test to Carbyne.

Comment. Investigation of the herbicide Carbyne revealed that the compound can be extrahepatically metabolized in animals (Fig. 1) to 3-chloroaniline and 2-chloro-4-aminophenol which has been shown in animals to adversely affect pigment metabolism (Nekrasova 1971, Aleksandrova & Klisenko 1971). With a definite contact allergic sensitivity to the parent compound Carbyne, it is interesting to speculate that the depigmentation may have resulted from the phenolic degradation product, 2-chloro-4-aminophenol. While the ortho-phenylphenol in the Pacquin medicated cream may also have played an important role in the depigmentation (Kahn 1970), the Carbyne is the more likely etiology. We had hoped to further investigate this interesting aspect that a compound can be metabolized to a phenol and subsequently cause depigmentation. However, we have not been able to obtain either of the degradation products of Carbyne.

We would be very interested in hearing from other investigators if they have had any similar experiences with this herbicide Carbyne.

Barban (4-Chloro-2-butynyl N-(3-chlorophenyl) carbamate) Carbyne

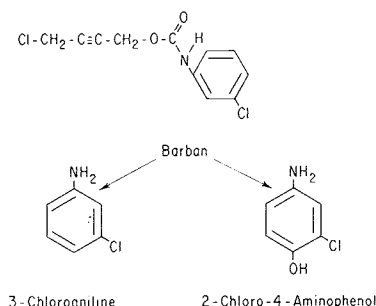


Fig. 1. Extrahepatic degradation products of Carbyne.

References

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- Nekrasova, A. S. (1971) Effect of carbyne on pigment metabolism and activity of alkaline phosphatase of rabbits under the conditions of acute and chronic poisoning experiments. *Trudy Nauchi Issled Institut Kraev Patologii (Alma-Ata)*, Vol. 22.

Contamination of chemico-technical preparations with formaldehyde from packages

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As part of a prevention program instituted in order to prevent occupational dermatoses among personnel, the declarations of all chemico-tech-

nical preparations have been checked by the author for 4 years. The products should not, for example, contain formaldehyde. There are

about 40 products, at a value of about £ 100,000, and the suppliers who do not provide complete declaration are not contracted for delivery the coming year.

Recently two of the personnel cleaning wards in a hospital developed hand eczema and reacted to formaldehyde at patch testing. A cleaning agent in use proved to contain formaldehyde when examined. For this reason all the preparations in the cleaning product storage in the hospital were examined. Four out of 19 contained formaldehyde. The producers then checked their raw materials but formaldehyde was not found.

Previously (Tegner & Fregert 1973) it has been shown that plastic packages for toilet preparations and other chemico-technical products are often coated with melamine or carbamide formaldehyde resin to fix the text. Formaldehyde is released and may penetrate into the content.

It was suspected that the actual products were contaminated from the packages. To confirm this suspicion the surfaces of the four packages were scraped off and examined. Formaldehyde was found in all four samples.

During the same period of time a new liquid soap was marketed in Sweden as non-allergenic. Nevertheless formaldehyde was found in it. This package too was coated with a formaldehyde resin.

It is easy to overlook formaldehyde contact with preparations contaminated from packages when not even a proper declaration is enough.

Reference

- Tegner, E. & Fregert, S. (1973) Contamination of cosmetics with formaldehyde from tubes. *Contact Dermatitis Newsletter* 13, 353.