Preliminary Report on a Case of Contact Dermatitis Due to Ozalid and Radex Copy Papers

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A case of contact dermatitis in a technical designer was suspected to be caused by copy papers (Ozalid and Radex).

Patch tests with non-irradiated active Ozalid and Radex papers turned out positive.

The causative agent in the papers seems to be a diazonium compound, which gave in a 10% aqueous solution strong positive patch tests in the patient and no reactions in controls. Patch tests with irradiated, inactivated papers were negative.

The Ozalid and Radex technique is a diazo process. The diazo active papers are inactivated by U.V. radiation where the papers are not protected by the lines of the original (the original drawing is transparent).

The diazonium compound disintegrates by U.V. radiation and the $-N=N-$ group in the diazonium molecule is broken down and disappears as gaseous N_2 .

-OH

$N-CH_2-CH_2-N \equiv N Cl + light \rightarrow CH_3 CH_2 + N_2$

CH, CH,

CH₃ CH₂

We presume that the $-N=N-$ group is the sensitizing part of the diazonium molecule.

This is in accordance with Malten, who found the same $-N=N-$ group in sensitizing dyes in a cotton printing mill.

Reference