

Routine patch testing with Irgasan DP 300®

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Irgasan DP 300® was introduced on the Swedish market in 1968. The annual sale is 3000–4000 kg (1975). It has increasingly replaced hexachlorophene in soap and other cosmetic products. Irgasan was subjected to our standard test in May 1973. The same concentration was chosen as used previously for hexachlorophene (0.5%). As appears from Table 1, 432 patients were tested and all were negative.

After the use of a concentration of 1% in ethanol in a Swedish study, we changed to this test solution. Tests were made on 470 patients, all of whom were negative.

Since the publication of Roed-Petersen's and Auken's report in August 1974, the same concentration has been adopted as that proposed by them: 2% in vaseline. During the period August 1974 to December 1975, 1100 patients were tested and two were positive.

Patient 1. A 22-year-old man with atopic eczema since childhood. Because of deterioration, a patch test was made. He reacted to Irgasan DP 300, with which he had come in contact through a deodorant.

Patient 2. A 15-year-old girl had previously had atopic eczema, especially in the cubital and popliteal fossae. She became acutely ill, with eruptions in both armpits, which could be ascribed to the use of a deodorant and a soap. A standard test showed a reaction to Irgasan DP 300, which was a component of both products.

Both patients were positive only to Irgasan DP 300 but negative to all other substances in the standard series, including mercuric chloride, benzalkonium chloride, and coal tar, which sometimes cause primary irritant reactions in atopics. There was conformity between exposure and the clinical picture, and the test reactions are considered to be expressions of contact allergy.

References

- Roed-Petersen, J. & Auken, G. (1974) Allergic contact dermatitis from Irgasan. *Contact Dermatitis Newsletter* 16, 520.
Roed-Petersen, J., Augén, G. & Hjorth, N. (1975) Contact sensitivity to Irgasan DP 300. *Contact Dermatitis* 1, 293–294.

Table 1. Routine patch testing with Irgasan DP 300

	Concentration	Vehicle	Tested	Positive
May–Dec 1973	0.5 %	vaseline	432	0
Dec 1973–Aug 1974	1.0 %	ethanol	470	0
Aug 1974–Dec 1975	2.0 %	vaseline	1100	2

4,4'-dithiodimorpholine, a new rubber sensitizer

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In a rubber factory we have recently examined 72 workers with dermatitis. All were examined by the ICDRG standard series of patch tests (supplied by Trolab, DK – 2900 Hellerup) and

a supplementary battery of rubber chemicals and resins used in the factory.

In 40 workers, the dermatitis could be related to their work, and they showed positive

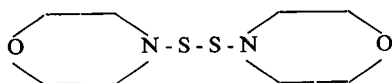
patch test reactions to rubber chemicals in the ICDRG standard series and to dichromate. The latter reactions could be referred to the use of protective leather gloves.

From the supplementary battery of patch tests we found eight positive reactions to the vulcanizing agent 4,4'-dithiodimorpholine. Five workers who were exposed daily to dithiodimorpholine had developed spreading dermatitis on the patch test site when read at 72 hours. Two of them had a +++ reaction to this chemical as their only positive patch test. The other three had ++ reactions and additional positive reactions to carba-mix or PPD-mix (Trolab). Three workers who were not in daily contact with dithiodimorpholine presented erythema and slight infiltration at the test site when read at 72 hours. Two of these also reacted to carba-mix or MBT-mix (Trolab).

We have later tested 110 patients with contact dermatitis with dithiodimorpholine. Six had strong positive patch test reactions and are listed below:

A further six patients had erythema at the patch test site when read at 72 hours. None of these patients had positive reactions to other rubber chemicals.

The 4,4'-dithiodimorpholine was applied in a 1 % concentration in yellow soft paraffin.



	4,4'-dithio- dimorpho- line	Positive reactions ICDRG series
Housewife	++	
Female assistant	++	cobalt ++ carba- mix ++ neomycin +++ TMTD-mix ++
Farmer	++	chromium +++
Charwoman	++	nickel +++
Housewife	++	formaldehyde ++ MBT-mix +++
Merchant	++	naphthyl-mix +++ colophony + wood tars ++ wool alcohols +++

The chemical is also known as Sulfasan R® and is produced by Monsanto Company, Ohio, U. S. A. It is a gray to tan powder used as a vulcanizing agent for natural and synthetic rubbers. Sulfasan R is not known to the Rubber and Plastic Research Association, Shrewsbury, Great Britain as a cause of dermatitis. It has been approved by the FDA as safe for use in rubber articles intended for repeated or continuous contact with food.

Allergy to balsam of Peru and wood tars: an increasing problem?

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The use of balsam of Peru and wood tars for medical purposes has decreased in recent years and is now insignificant (Hjorth 1961). However, balsams are often used as fixatives for perfumes in toilet soaps, detergents and cosmetics. Patients who are allergic to perfumes may show a cross-reaction to wood tars.

Positive patch test reactions to balsam of Peru and wood tars may therefore signify an allergy to perfumes and fixatives in soaps and cosmetics. Rothenborg & Hjorth (1968) found a coincident reaction between perfume and wood tars in 46 % of patients allergic to per-

fume, and between perfume and balsam of Peru in 23 % of the patients. Hannuksela et al. (1976) in a later investigation found that 10 % of their patients allergic to perfume also reacted to wood tars, while 43 % reacted to balsam of Peru. The difference between the two investigations may be due to the use of various perfumes, as these constitute a large and unhomogeneous group of chemicals. Nevertheless, both investigations show that balsam of Peru and wood tars are usable as screening tests for perfume allergy. Hjorth (1961) found positive reactions to bal-

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