

BFGoodrich

Inter-organization Correspondence

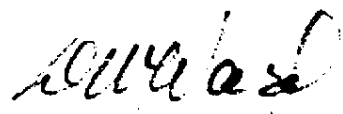
TO Dr. M.N. Johnson	FIELD POINT OR AKRON DEPARTMENT & BLDG. NO. Akron - D/0022 - B/5H	DATE YOUR LETTER
FROM D.W. Ward	FIELD POINT OR AKRON DEPARTMENT & BLDG. NO. Avon Lake Technical Center	DATE THIS LETTER Sept. 19, 1973
SUBJECT		

Dermatitis Induced by Geon 130X17

In early May I discussed a problem with dermatitis from one of our newer plastisol resins with Mr. E.B. Katzenmeyer. Later I sent samples and a description of the problem (Memo of 5/18/73). In more recent discussions, I learned that no testing has started and that the materials have been turned over to you. Will you please initiate some action to help us determine if a problem does indeed exist with this material or tell me how to proceed.

My concern is with our external as well as internal liability since this is a standard production material used in an industry which traditionally considers plastisol resins innocuous.

DWW:jms


 D. W. Ward

cc: F.E. Krause
B.M.G. Zwicker
E.G. Schwaegerle
E.B. Katzenmeyer

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RECORDED

TO F. E. Krause	FIELD POINT OR AKRON DEPARTMENT & BLDG. NO. Avon Lake Technical Center	DATE YOUR LETTER
FROM D. W. Ward	FIELD POINT OR AKRON DEPARTMENT & BLDG. NO. Avon Lake Technical Center	DATE THIS LETTER 5-3-73
SUBJECT		

Dermatological Implications of Geon 130X17

Re our conversation yesterday, I called Wally Bachtel at Akron to find out what we need to do to check out our suspicion that Geon 130X17 is causing dermatitis in paste group personnel. Wally said that he would check with Dr. Johnson (who is Bill McCormick's interim replacement at the Medical Center), Ed Katzenmeyer or John Born and let me know how to proceed. Messrs. Katzenmeyer and Born are industrial hygienists in Akron.

Plastisol technicians who have worked for a prolonged time with Geon 130X17 and Geon 130X17 plastisols have complained of peeling skin on their hands (especially the finger tips).

Although there is no apparent lasting dermatological problem (the lesions seem to heal when exposure stops), we need to consider potential problems with dusting in our plants and in our customer plants and potential problems with plastisol contact in our customer plants. I believe the first step should be patch testing within our organization with both plastisol and dry resin.

Bill

DWW/sp

D. W. Ward

- cc: E. G. Schwaegerle
R. W. MacCuspia
W. A. Bachtel
S. C. Alten

23438018

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Inter-organization Correspondence

BFGoodrich

TO	E.B. Katzenmeyer	FIELD POINT OR AKRON DEPARTMENT & BLDG. NO.	Akron, Dept. 0022 - Bldg. 5H	DATE YOUR LETTER	MAY 23 REC'D
FROM	D.W. Ward	FIELD POINT OR AKRON DEPARTMENT & BLDG. NO.	Avon Lake Technical Center	DATE THIS LETTER	May 18, 1973
SUBJECT					

Geon 130X17 - Dermatitis

I'm sending you samples of Geon 130X17 resin and a Geon 130X17 plastisol. The plastisol is a simple stir-in mix of 100 parts resin and 80 parts DOP. I've described the apparent skin problems which our technicians have from 130X17. This resin is a copolymer of 2.5% acrylic acid with vinyl chloride. Other than the co-monomer, 130X17 is very much like our FDA acceptable Geon 121. Our analysis shows that the finished Geon 130X17 contains about 2.7% carboxyl as acrylic acid. There is less than 0.1% free poly acrylic acid or acrylic acid monomer removable by hot water washing Geon 130X17.

The process of using Geon 130X17 involves dispersing at room temperature in DOP or other plasticizer by means of a planetary type mixer. The dispersion is then spread on a substrate using common laboratory applicators and fused in a circulating air oven at 300 to 350°F. Many tests such as viscosity are run on the liquid and we often handle rags, etc. wet with the liquid. After heating, a 130X17 film is formed (sample enclosed). We have much occasion to handle such films.

Our operation is extremely clean relative to those in our customers' labs and especially relative to their plants. We have minimal exposure to resin dust during mixing and to contact with the wet plastisol. We probably handle fused stock as much as our customers do.

Since Geon 130X17 is going into plastisol applications and since simple resin/DOP plastisols have for years been considered to be innocuous, I think it is important that we find out if 130X17 is not innocuous. If it is not, we should use appropriate handling techniques and we should at least warn our customers.

As far as hazard in end use is concerned, this resin poses little problem since it is usually used as an adhesive between vinyl film and a substrate.

DWW:jms


D. W. Ward

cc: F.E. Krause
B.M.G. Zwicker
E.G. Schwaegerle

**COMPANY
CONFIDENTIAL**

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RECORDED

TO D.W. WARD	FIELD POINT OR AKRON DEPARTMENT & BLDG. NO. AVON LAKE	DATE YOUR LETTER
FROM W.C. BACHTEL	FIELD POINT OR AKRON DEPARTMENT & BLDG. NO. DEPT. 0020 - BLDG. 5-H	DATE THIS LETTER 6/20/74
SUBJECT GEON 130 X 17 RESIN AND PLASTISOL - HUMAN REPEATED INSULT PATCH TEST.		

There is an error in my report to you dated 6/17/74. The first sentence, last paragraph on the first page should read:

"Based on the incidence and severity of the reactions, Geon 130 X 17 resin and Geon 130 X 17 plastisol would not be classified as a skin irritant, as normally defined."

The word "not" was left out of this sentence. Please make the correction in your copy of the report.

W.C. Bachtel
W.C. Bachtel

elc

cc: F.E. Krause
B.M.G. Zwicker
E.G. Schwaergerle

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REGISTERED

TO D.W. WARD	FIELD POINT OR AKRON DEPARTMENT & BLDG. NO. AVON LAKE	DATE YOUR LETTER
FROM W.C. BACHTEL	FIELD POINT OR AKRON DEPARTMENT & BLDG. NO. DEPT. 0020 - BLDG. 5-H	DATE THIS LETTER 6/17/74
SUBJECT		

GEON 130 X 17 RESIN AND PLASTISOL - HUMAN REPEAT INSULT PATCH TESTS.

Due to skin problems, thought to possibly be encountered by the technicians working with Geon 130 X 17, samples of Geon 130 X 17 resin and Geon 130 X 17 plastisol (80 phr DOP) were submitted to Industrial Bio-Test Laboratories for human repeated insult patch tests.

Fifty human female subjects (in general human female is more sensitive to irritants than males), 22 to 50 years of age, were employed in the simultaneous investigation of the test materials. The technique used was the standard human repeat insult patch tests calling for nine 24 hr. induction patches, followed by a two week rest before application of the 24 hour "challenge" patch.

After removal of each 24 hour induction, the skin was graded for irritation.

After the 24 hour "challenge" patch was removed, the skin was observed and checked again at 24 and 48 hours for irritation.

Approximately 0.03 ml of the plastisol or enough of the resin to form a thin layer on the gauze of an oval shaped adhesive patch was used.

There were a total of seven reactions noted with Geon 130 X 17 resin during the induction period. Six of these occurred on the 8th application, the other on the 9th application. Of the seven reactions noted, five consisted only of very slight reddening of the skin, one in addition to very slight redding of the skin consisted of very slight edema. The remaining reaction was moderate reddening of the skin. On the "challenge" application five reactions were noted which all consisted of very slight reddening of the skin. Only one of these occurred on a subject who previously experienced a reaction.

The Geon 130 X 17 plastisol produced a total of 25 reactions. Two subjects showed a reaction consisting of very slight reddening of the skin on the fifth application, most of the reactions occurred on the eight application, these consisted of very slight to mild reddening of the skin. There were two reactions on the "challenge" application which consisted of very slight redding of the skin, one of the subjects also had slight edema.

It is interesting to note that of the twenty people who had a reaction to the plastisol, eleven had also had a reaction to the resin.

The incidence of reaction to the 450 induction patches of each material applied was 1.6% for the resin and 5.6% for the plastisol.

NIT

Based on the incidence and severity of the reactions, Geon 130 X 17 resin and Geon 130 X 17 plastisol would be classified as a skin irritant, as normally defined. However, these materials do show some slight irritating effects. One could expect, therefore, that there will be individuals who may be sensitive to these materials particularly after prolonged contact. For these people, precautions should be

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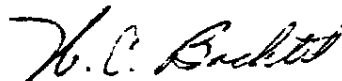
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AVON LAKE
June 17, 1974

taken to avoid skin contact.

Geon 130 X 17 resin and plastisol showed no evidence of skin sensitization (i.e. allergic response).



W.C. Bachtel

elc

cc: F.E. Krause
B.M.G. Zwicker
E.G. Schwaergerle

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23438022

B.F.GOODRICH CHEMICAL COMPANY TECHNICAL REPORT

TITLE Geon 130 x 17 Skin Reactions		
AUTHOR D. W. Ward	LOCATION ALTC	DATE 9 July 74
REQUESTED BY:	LOCATION	PROJECT NO. 3032
SUMMARY		
All of the technicians in the Dispersions Group have complained of skin problems from working with Geon 130 x 17 plastisols. The problem seems to be one of loss of layers of skin with discomfort coming from the increased sensitivity of the raw area. We asked the Akron Environmental Lab to have formal tests made to determine if Geon 130 x 17 was actually the culprit and if so how severe a problem existed. Their report is attached. It says, in essence, that Geon 130 x 17 is a slight irritant causing reddening and swelling in some subjects and the plastisol is more irritating than the dry resin. Geon 130 x 17 is not a skin sensitizer. The formal tests at Industrial Bio.-Test were patch tests with little abrasion of the exposed skin area. As a result, skin reddening and swelling were mentioned but no skin loss. The technicians in our lab habitually remove plastisol from affected areas by wiping it off, then washing with soap and water, and they repeat this procedure many times a day. My opinion is that the acid resin acts like salicylic acid used to remove corns and callus tissue and that our different experience is a result of prolonged exposure and the abrasion of the affected skin area. Since neither the independent lab nor the dispersion technicians report any permanent damage, I feel that we can consider Geon 130 x 17 relatively innocuous on a short term basis. It is worth noting that 5% gels of Carbopol in deionized water produced the same type of reaction as Geon 130 x 17 in the Human Repeated In-sult Patch Test and that Carbopol is used in many cosmetic formulations. D. W. Ward		
LOG BOOK REFERENCE:		GROUP FILE ACQ. NO. 1937
DISTRIBUTION: CTF F.E. Krause J.A. TePas K.W. MacCuspie B.M.G. Zwicker E.G. Schwaegerle J. Kobylak L.B. Lydick W.H. Scott J.R. Russell B.K. Mikofalvy W.C. Bachtel		

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