

TGG: JCL: FGJ: AC: AJO: RF
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TO: Distribution

FROM: T. G. Grumbles

DATE: August 9, 1991

Interoffice
Communication

SUBJ: PVC COMPOUND - SKIN RASHES

VISTA

The attached memo and article are in regards to skin rashes in PVC Compound workers. The article describes a NIOSH Health Hazard Evaluation at a Georgia-Gulf plant.



T. G. Grumbles

dlj
.301

Attachment

Distribution: B. Trego, R. Seymour-Aber, G. Lipps, S. Saborsky-
Premiere, G. Williams-Blane

VVV 000007517

**Interoffice
Communication**

To: Distribution

From: D. A. Penney *DP*

Date: August 6, 1991

Subject: **Skin Rashes Among PVC Compound Workers- Georgia Gulf Tiptonville Plant**

VISTA

The attached summarizes an investigation of a cluster of reports of skin rashes among workers at a Georgia Gulf PVC compounding facility. The rashes appeared primarily on the hands, lower arms, lower legs and trunk and were probably the result of direct irritation (not allergy) due to dusts of additives (including acrylates) which accumulated on the skin and clothing of workers during compounding. PVC dust itself was ruled out as a potential offender because the PVC powder was enclosed throughout production, thus preventing employee contact.

All of this points out the need for maintaining good industrial hygiene when handling powders used in PVC compounding. Direct prolonged contact with these materials should be avoided. Appropriate engineering controls, protective clothing and showers after exposure to dusts at the end of the day can be used to reduce the irritation hazard associated with these materials. Persons with persistent skin rashes (and skin disorders) should seek medical advice.

Distribution: J.R. Drumwright
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VVV 000007518

No association was found between history of rash and any of the following: history of atopy, skin response to the sun and presence of dermatographism.

Based on environmental observations and medical findings, the NIOSH investigators concluded that blender operators have had an elevated risk of developing dermatitis since May, 1985. The dermatitis was likely to be of occupational origin and due to exposure to airborne dusts and powders, including pigment powders and acrylic polymers that contain residual monomers. Recommendations aimed at reducing exposures and preventing dermatitis include showering at the end of a work shift that involved exposure to dusts and powders, reduction of airborne dust levels through engineering controls, and use of protective clothing, barrier creams and skin moisturizers. Further details on these recommendations are included in Section VII.

Key Words: SIC 3079 (Miscellaneous Plastic Products), polyvinyl chloride compounding, acrylic polymers and monomers, dermatitis, calcium carbonate, titanium dioxide, carbon black, pigment powders.