



NICNAS Existing Chemicals Information Sheet

FORMALDEHYDE IN CLOTHING AND OTHER TEXTILES

October 2007

Health Effects of Formaldehyde

Existing industrial chemicals are assessed by the National Industrial Chemicals Notification and Assessment Scheme (NICNAS) on a priority basis, in response to specific concerns about potential health and/or environmental effects. NICNAS has recently conducted a full review of the use and toxicity of formaldehyde.

The NICNAS assessment found that the most likely health effects arising from release of formaldehyde from domestic products such as blankets and clothing textiles are irritation of the eyes and nose, and allergic reactions on skin in contact with the clothes.

Breathing formaldehyde vapour can result in irritation of nerves in the eyes and nose, which may cause burning, stinging or itching sensations, a sore throat, teary eyes, blocked sinuses, runny nose, and sneezing.

Skin contact with formaldehyde can cause skin rashes and allergic skin reactions. The levels of exposure which may cause these allergic reactions will vary between individuals, and will depend in part on the individual's previous allergy history. Instances of dermatitis arising from wearing clothing containing high levels of formaldehyde have been documented.

The NICNAS review also found that formaldehyde can have other health effects, but these occur at much higher levels than can be released from textile products.

Formaldehyde in Textiles

Formaldehyde is released by some textile finishes, such as those conferring crease resistance, while the garment is new. These finishes are most likely to be used on fabrics that otherwise crease easily, such as cotton or wool. Formaldehyde is very water soluble, and washing the new garments before wearing will generally reduce the amount of formaldehyde released from the fabric.

Regulatory Controls

The NICNAS review recommended that formaldehyde should be subjected to more restrictions under the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP). NICNAS is also liaising with the Australian Competition and Consumer Commission (ACCC) on the issue of health effects arising from residual formaldehyde in clothing.

The interim benchmark residue levels announced by the ACCC are consistent with the most stringent international formaldehyde restrictions. These limits are based on international standard methods for

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measurement of the formaldehyde content of clothing, and cannot be compared with results obtained by other measurement methods.

Testing for Formaldehyde in Australian Clothing

The ACCC has completed its initial program of purchasing a broad range of clothing on the Australian market and testing for residual formaldehyde content, using two recognised testing authorities in Australia. No formaldehyde was detected in any of the garments submitted. Clothing tested included infants', children's and adults' garments such as shorts, shirts, trousers, tops and nightwear.

(<http://www.accc.gov.au/content/index.phtml/itemId/801314/fromItemId/2332>)

The ACCC testing program is ongoing, and may lead to recalls of any textile products with excessive levels of formaldehyde. It is recommended that consumers with a history of allergy wash new garments prior to wearing.