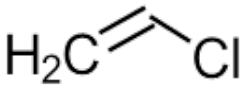
CAS 75-01-4

Vinyl Chloride

C_2H_3Cl

VERMONT DEPARTMENT OF HEALTH



Summary of Health Effects

Vinyl chloride has been linked to certain types of cancer in humans.

How is vinyl chloride used?

Most vinyl chloride is used to make polyvinyl chloride (PVC), a plastic resin used in many products including furniture, car parts, containers, flooring and windows.[1]

Toxicity: What are its health effects?

Vinyl chloride is a known human carcinogen and is classified as such by the National Toxicology Program and the International Agency for Research on Cancer.[1,2]

It has been associated with cancer of the blood vessels in the liver.[1,2] Studies have reported that vinyl chloride also causes cancer of the liver, brain, lung, lymphatic system and hematopoietic system (blood cell production).[1]

Vinyl chloride has demonstrated gene mutation-producing properties, with strong evidence for genetic damage.[3] Animal studies suggest that its carcinogenic effects may be more harmful to younger animals, indicating that children may be more at risk than adults.[3,4]

Exposure: How can a person come in contact with it?

A person can come in contact with vinyl chloride by breathing it in or from skin contact.

Inhalation is the primary route of exposure to vinyl chloride, which can be released into the air through production emissions and waste from the plastics industry.[4]

Skin contact with consumer products is another route of exposure.[2]

The 2014 National Health and Nutrition Examination Survey (NHANES) results show break-down products of vinyl chloride in the urine of the majority of smokers, indicating that second-hand smoke is a potential route of exposure for children and other non-smokers.[5]

References

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