

# Trichloroethylene

**Trichloroethylene is a solvent used as a degreaser in vapour degreasing and for cold cleaning metals. It is also used in adhesives, electrical equipment cleaners, waterproofing agents, paint strippers and carpet shampoos.**

NICNAS assessed trichloroethylene in March 2000. These are the main findings of that assessment.

A product containing more than 0.1% trichloroethylene is classed as a Hazardous Substance. Trichloroethylene is Class 6.1. under the Australian Dangerous Goods Code.

Trichloroethylene is not flammable, however, the vapour may ignite if concentrated near heat sources.

Trichloroethylene poisoning can occur through the skin, swallowing or by inhalation. Of these, breathing it in is by far the most likely way for poisoning to occur.

Signs of trichloroethylene poisoning include dizziness, headaches, confusion and in high doses, unconsciousness and irregular heart beats.

Contact with trichloroethylene liquid or vapour can cause eye irritation and damage to the cornea.

Trichloroethylene is a skin irritant; over time skin contact with trichloroethylene will cause reddening and defatting of the skin. Liquid trichloroethylene can be absorbed through the skin.

Repeated exposure to trichloroethylene can result in vertigo, dizziness, headaches, memory loss and difficulty in concentration. Prolonged exposure to trichloroethylene may cause cancer.

## RECOMMENDATIONS

The main risk from trichloroethylene is from breathing it in.

- If a safer product or process can be substituted for one involving trichloroethylene, this should be done.
- In particular, the use of trichloroethylene for cold cleaning should be phased out.
- Trichloroethylene should not be used as a spray or aerosol.

Where trichloroethylene is mixed and used exhaust ventilation is recommended. The air quality should be monitored regularly to ensure that the ventilation is adequate.

Where trichloroethylene is used for vapour degreasing, the degreasers should be made to Australian Standard AS 2661.

Workers using trichloroethylene should be trained how to use it safely. Always obey the safety instructions.

The Australian Standard 2865: Safe working in a confined space, should be strictly followed for trichloroethylene.

Avoid skin coming into contact with trichloroethylene. Wear long sleeved shirts and trousers. Not all gloves are suitable for use with trichloroethylene. Viton gloves are recommended but other gloves may be used depending on the type of glove and how the substance is used.

The current national exposure standards are an average exposure limit of 50 ppm TWA and a short-term exposure limit of 200 ppm STEL. However, these limits need to be reviewed in the light of recent health data so exposure should be kept as low as possible.

More information on trichloroethylene can be found in the Material Safety Data Sheet available from the supplier. The most comprehensive source of information is the detailed assessment of trichloroethylene published by the National Industrial Chemical Notification and Assessments Scheme (NICNAS). This is available free of charge by calling 1800 638 528. More information on the use of industrial chemicals can be found at the NICNAS website: [www.nicnas.gov.au](http://www.nicnas.gov.au)