



## CAUTION REQUIRED: For Methylene Chloride in Paint Stripping

### WORKERS SHOULD NOT WORK ALONE WHEN METHYLENE CHLORIDE IS USED IN OPEN TANKS FOR PAINT STRIPPING.

#### Why is caution required?

Inhaling high levels of methylene chloride vapour can cause dizziness, headache, drowsiness, poor coordination, loss of consciousness and death. Two workplace deaths in Victoria and New South Wales occurred in 2003 when methylene chloride was used in open tanks for stripping paint from furniture. Very high levels of methylene chloride vapour were found in the air immediately above the open tanks.

#### Methylene chloride is also known as:

- Methylene dichloride
- Dichloromethane (may be abbreviated as DCM)
- Methane dichloride

#### Where is it used?

Methylene chloride is a highly volatile solvent and is widely used in paint stripping, adhesives, cold tank metal degreasing, urethane foam manufacturing, print developing, aerosol products and as a process solvent in the chemical and pharmaceutical industries.

#### How can I be exposed to methylene chloride?

Exposure to methylene chloride is mainly from breathing in its vapours, but the chemical can also enter the body through skin contact and by swallowing.

#### What are the other health effects?

Contact with methylene chloride to the skin and eyes can cause irritation.

Methylene chloride causes lung and liver cancers in mice. However, these effects are not seen in rats or hamsters and data in humans are inconclusive. For more information on health effects, please see overleaf for details of NICNAS Information Sheet.

#### How can I use methylene chloride safely?

WorkSafe Victoria, in 2003, issued an alert for paint stripping using methylene chloride in a tank. The alert describes legal requirements and control measures needed to prevent serious injuries and deaths from exposure to methylene chloride when it is used during paint stripping operations in an open tank. NICNAS endorses the WorkSafe Victoria document and recommendations. Please see overleaf for more details of the WorkSafe Victoria Alert.

Employers have a duty to eliminate or reduce risks to employees using methylene chloride as far as practicable.

Use of a less hazardous product or a different method of stripping paint is recommended.

When this is not practicable, engineering controls and safe work practices can also reduce exposure.

These include:

- ▶ General ventilation to reduce residual vapours in the workplace;

*NOTE: local exhaust ventilation fitted to the tank rim or over the tank is not appropriate in cases where workers lean over the tank because solvent vapours are likely to be drawn through workers' face.*

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- ▶ Preventing employees from working over or leaning into the tank by:
  - raising the tank height;
  - using tanks of different size and shape;
  - increasing the depth of solvent in the tank;
  - soaking items for longer periods;
  - minimise manual work in and above tanks;
  - using mechanical lifting devices to move items;
  - minimise entries to tanks.
- ▶ Wear full personal protective equipment, including impervious gloves and goggles at all times while working with methylene chloride. Use an airline respirator. Where this is not practicable, other suitable respiratory protection may be used, for example, a half-face respirator with filters for methylene chloride.

#### Useful contacts for further information

State or territory OHS Authorities

Check your local government directory for contact details.

#### NICNAS

Ph: 1800 638 528 Fax: 02 8577 8888

Write to: GPO Box 58 Sydney NSW 2001 Australia

#### Other Information

##### Current regulatory controls

Methylene chloride is a hazardous substance and is listed in the National Occupational Health and Safety Commission (NOHSC) List of Designated Hazardous Substances.

The labelling requirements for any products containing  $\geq 1\%$  methylene chloride are:

##### Risk phrase:

R40, Possible risks of irreversible effects, Carcinogen Category 3.

##### Safety phrase:

S2: keep out of reach of children;

S23: do not breath vapour;

S24/25: avoid contact with skin and eyes;

S36/37: wear suitable protection clothing and gloves

The current national workplace exposure standard is an eight-hour time-weighted average of 50 ppm (174 mg/m<sup>3</sup>).

Methylene chloride is classified as a Schedule 5 poison under the Standard for the Uniform Scheduling of Drugs and Poisons and in Class 6.1– Toxic substances, Packing Group III under the Australian Dangerous Goods Code with a UN Number of 1593.

#### For more information on Methylene Chloride

##### WorkSafe Victoria Alert

More details of the alert can be found at: <http://www.workcover.vic.gov.au/dir090/vwa/alerts.nsf/alertsInter/4B354468F8D04E08CA256D6B00002BA5?OpenDocument>

##### NICNAS Information Sheet

National Industrial Chemical Notification and Assessment Scheme (NICNAS) published an Information Sheet on methylene chloride in 2004 summarising health and safety information for the chemical. It can be found at [www.nicnas.gov.au/publications/pdf/ecis\\_methylenechloride.pdf](http://www.nicnas.gov.au/publications/pdf/ecis_methylenechloride.pdf)

##### MSDS

Information can also be found in the material safety data sheet (MSDS) available from the supplier.

##### Other

More information on the safe use of methylene chloride includes a Code of Practice for the Reduction of Dichloromethane Emissions from the Use of Paint Strippers in Commercial Furniture Refinishing and Other Stripping Applications produced by Environment Canada in 2003.

It can be found at [http://www.ec.gc.ca/ceparegistry/documents/code/furn\\_ref/toc.cfm](http://www.ec.gc.ca/ceparegistry/documents/code/furn_ref/toc.cfm)