

Workplace Health and Safety Bulletin



Drycleaners Beware

Perchloroethylene can cause health problems

Perchloroethylene (tetrachloroethylene) or “perc”, is the most commonly used solvent in the drycleaning process. Workers in drycleaning plants are exposed to perc by breathing the vapour or getting the liquid on their skin. The most common effects of overexposure are irritation of the eyes, nose, throat, or skin and effects on the nervous system, as described below.

Various research organizations concluded that perc can cause cancer in animals, but there is not sufficient evidence to indicate that it can cause cancer in humans.

Workers may be exposed to perc when

- Washer, dryers and piping systems are poorly maintained
 - Solvent vapour may leak around door gaskets that are dry and cracked.
- Fresh solvent is loaded into drycleaning machines
 - Liquid may splash into eyes or onto skin.
- Transferring solvent laden garments from washer to a separate dryer
 - Workers handling the garments may be exposed to liquid and vapour.
- Empty containers and used filters are not properly discarded
 - Workers may come in contact with liquid and vapour which has leaked from discarded containers.

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- Open or leaking containers of solvent are left sitting in the plant
 - Solvent will vapourize and workers may be exposed.


What happens if workers are exposed to perc?

- Breathing a small amount of the vapour can cause irritation to the eyes, nose and throat.
- If a large amount of vapour is inhaled, workers may become dizzy, confused and lightheaded. They may even lose consciousness.
- Skin may become dry. Depending on the length of exposure, a scaly dermatitis or second degree burns may result.

Occupational Exposure Limit (OEL)

The Alberta Occupational Health and Safety (OHS) Code, sets maximum allowable worker exposure. The limits are subject to periodic review. Please check the OHS Code, Schedule 1, Table 2 for the current OEL.

For more information

 http://employment.alberta.ca/documents/WHS/WHS-LEG_ohsc_2009.pdf
Occupational Health and Safety Code

How to avoid exposure

- For older equipment requiring transferring of garments from washer to dryer, transfer solvent laden garments in the shortest possible time.
- Regularly maintain and inspect machinery, especially door seals, piping connections and filter casings.
- Check the local exhaust ventilation on the drycleaning machines regularly to make sure it is working properly.
- Make sure there is good general ventilation in work areas so that vapours cannot accumulate.


- Clean lint traps to ensure the dryer works properly.
- Wear protective polyvinyl alcohol or neoprene gloves when handling solvents.
- Minimize staff exposure to the solvent, change solvent when other staff are not around.
- Use hand pumps when transferring solvent from storage containers to the drycleaning machines.
- Store and dispose of material properly. Used filters, depleted solvents and empty perchloroethylene containers must be removed from work areas.
- Replace older equipment with newer equipment. New equipment is designed with higher solvent recovery which will reduce worker exposure.
- Consider using an alternative cleaning process such as wet cleaning and petroleum-based solvents and machines, which are available and effective.
- Isolate drycleaning equipment from workers by putting them in a separate area.
- Your employer is required to have a material data sheet (MSDS) on chemicals used in the workplace and train you to understand the information on the MSDS. Ask your employer for the MSDS which will describe the possible hazards and the precautions you need to take.
- Your employer must ensure you are trained and able to safely handle the chemicals in the workplace. Check with your employer if you have not received training.


For more information


 http://employment.alberta.ca/documents/WHS/WHS-PUB_ch069.pdf
Perchloroethylene at the Work Site

Contact us:

Province-Wide Contact Centre

 Edmonton & surrounding area:
780-415-8690

 Throughout Alberta:
1-866-415-8690

 Deaf or hearing impaired

- In Edmonton: **780-427-9999**

or

- **1-800-232-7215** throughout Alberta

Web Site

 www.worksafely.org

Getting copies of OHS Act, Regulation & Code:

Queen's Printer

 www.qp.gov.ab.ca

 Edmonton 780-427-4952

Workplace Health and Safety

 <http://employment.alberta.ca/whs-ohs>

Call any Government of Alberta office toll-free
Dial 310-0000, then the area code and telephone number you want to reach

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