

P8

COSHH essentials for printers



This information is intended to help employers in the printing industry comply with the requirements of the Control of Substances

Hazardous to Health Regulations 2002 (COSHH), as amended, to control exposure to chemicals and protect workers' health.

It is also useful for trade union safety representatives.

This sheet describes good practice for manual cleaning of offset presses using UV-curable inks, with cleaning chemicals such as solvent naphtha, high boiling point glycol ethers and water-based products.

It is important to follow all the points or use equally effective measures.

Main points

- Avoid skin contact with UV-curable inks - these can cause dermatitis. Uncured ink does not dry.
- Manual cleaning increases the risks of skin exposure. Consider introducing automatic systems.
- Solvent-based cleaners (eg solvent naphtha) can be absorbed through the skin.
- Carry out health surveillance for dermatitis.

Manual cleaning of presses (UV-curable inks and coatings)

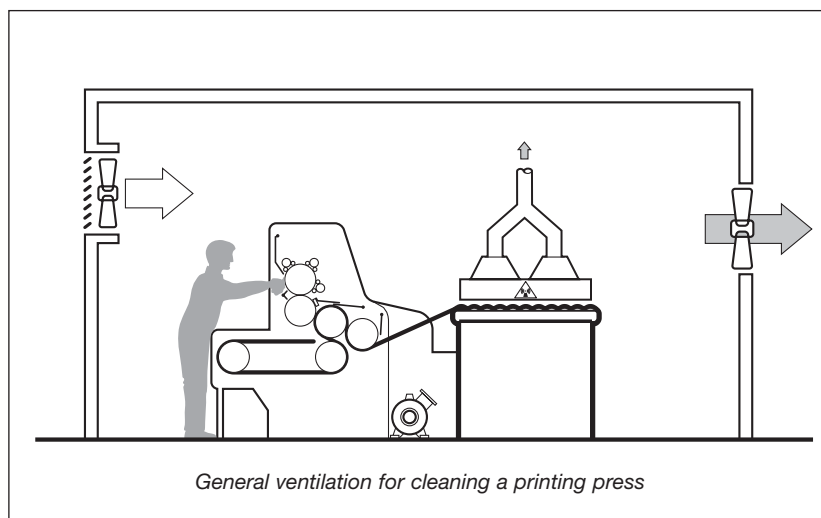
Lithographic printing

Access and premises

- ✓ Only allow authorised staff access to the press room.
- ✓ Provide good facilities for washing, skin care, and for taking refreshments.

Equipment

- ✓ Can you use cleaning products with lower volatility/higher flashpoint?
- ✓ Can you use a wiping tool in place of rags or cloths? Minimise hand wiping.
- ✓ Provide a good standard of general ventilation. Use powered wall- or window-mounted fans to supply fresh air - five to ten air changes per hour, with a through draught.
- ✓ If extraction is fitted to the press, turn it on for cleaning. The press should be stationary.
- ✓ Provide a good through draught with a fan or air mover for work in restricted areas, eg removing ink from cylinders, work in dead spaces between machines.
- ✓ Provide fire-resisting, metal cabinets for flammable liquid storage in the press area.



- ✓ Minimise the usage of highly volatile cleaner, eg solvents containing methyl ethyl ketone. If using more than 0.5 litres per day, or for more than 30 minutes, you will need vapour extraction.
- ✓ Provide chemical-resistant gloves.

Special care

- ✓ Avoid blanket rejuvenation products based on dichloromethane (methylene chloride). This is extremely volatile.

Maintenance, examination and testing

- ✓ Follow the instructions in the maintenance manual - keep equipment in effective and efficient working order.
- ✓ Noisy or vibrating fans indicate a problem. Do repairs as necessary.

Personal protective equipment (PPE)

- ✓ Provide storage for PPE to prevent damage or contamination when not in use.

Respiratory protective equipment (RPE)

- ✓ Respiratory protective equipment should not be needed for routine use.

Gloves

- ✓ Use chemical resistant gloves - nitrile gloves 0.4 mm thick are acceptable. Typically, these are suitable for use with lower-volatility solvents, for no more than eight hours.
- ✓ Ensure that workers wear them.
- ✓ Ensure workers remove and discard damaged gloves.

Other protective equipment

- ✓ Eye protection.
- ✓ Impervious apron.
- ✓ Anti-static footwear.
- ✓ Cotton overalls to minimise clothing contamination.
- ✓ Change contaminated overalls immediately and ensure they are laundered before reuse.

Skin management

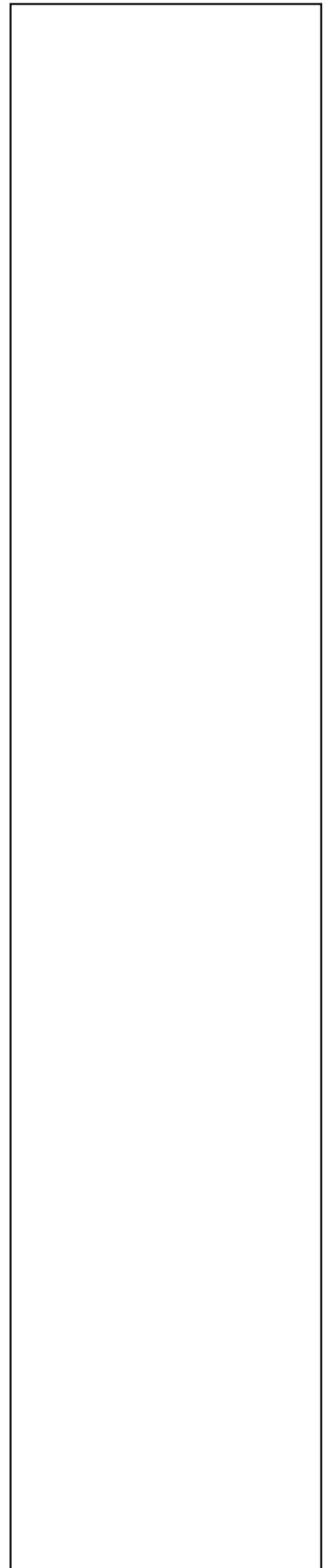
- ✓ Skin contact with UV-curable inks and coatings may cause dermatitis.

Skin care

- ✓ Keep hands clean and in good condition.
- ✓ Using pre-work creams helps make removing chemicals easier. However, pre-work creams should not be seen as a substitute for gloves.
- ✓ If you need to use hand cleansers to remove ink, ensure that the cleanser is rinsed off afterwards.
- ✓ Provide after-work creams (moisturisers) to replace skin oils.
- ✓ Never allow solvents to be used for cleaning skin.

Skin surveillance/checks

- ✓ Health surveillance for dermatitis is required. See sheet P45.



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- ✓ Seek advice from an occupational health professional in setting up a health surveillance programme.
 - ✓ Start surveillance for new workers within six weeks of their starting work. Then check at monthly intervals or as advised by your health professional.

Cleaning and housekeeping

- ✓ Keep the work area tidy, clean and free of ink contamination.
- ✓ Clean the workroom at least once a week.
- ✓ Minimise the amount of flammable liquids in use. Use a self-sealing container or proprietary dispenser.
- ✓ Store containers in a safe place, securely closed.
- ✓ Handle containers with care and replace caps. Wipe off any liquid on the outside of the container.
- ✓ Clean up spills immediately. Use an impervious apron and new nitrile gloves 0.4 mm thick. Throw away gloves once used.
- ✓ Store contaminated cloths, wipes and gloves in fire-resisting, closed, metal containers. Dispose of them as hazardous waste.
- ✓ Use a contract laundry or a suitable equivalent to wash work clothing. Don't do this at home.
- ✓ Dispose of waste solvent, ink and empty containers as hazardous waste.
- ✓ Handle containers with care and replace caps.
- ✓ Control panels also require cleaning.

Training and supervision

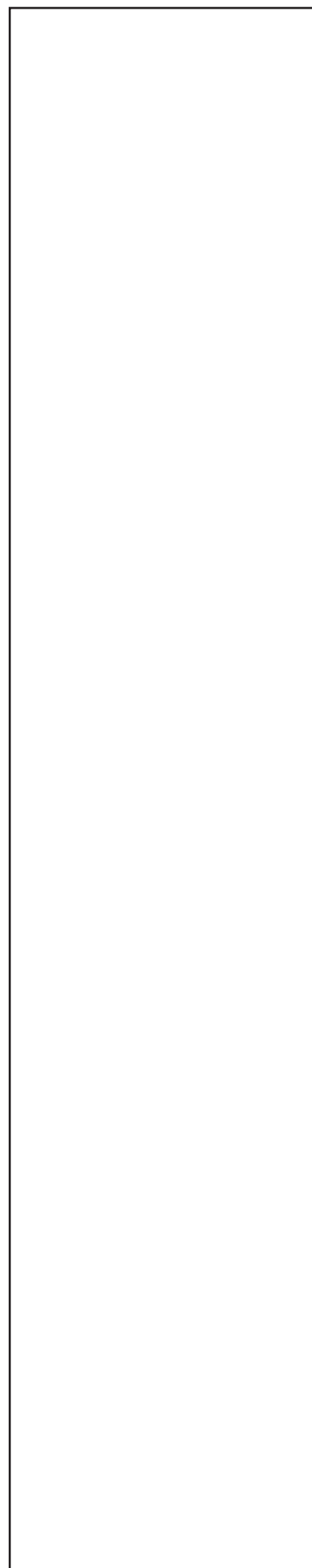
- ✓ Working in the right way is important for exposure control. Train and supervise workers - see details in sheet P0.
- ✓ Warn about the dermatitis risk from UV-curable inks.

Environmental guidelines

Releases into the air may be regulated within the Pollution Prevention and Control (PPC) framework. Your local authority or the Environment Agency will tell you if PPC applies to your company, and give advice on air cleaning and discharging emissions. In Scotland, consult the Scottish Environment Protection Agency (SEPA). For more information, see <http://www.environment-agency.gov.uk/netregs/sectors/>.

Further information

- *The printer's guide to health and safety* (Second edition)
HSE Books 2002 ISBN 0 7176 2267 3
- *Skin problems in the printing industry* Leaflet IACL101(rev1)
HSE Books 2002 (single copy free or priced packs of 15
ISBN 0 7176 2322 X)
- *General ventilation in the workplace: Guidance for employers* HSG202
HSE Books 2000 ISBN 0 7176 1793 9



Useful links

Contact the British Occupational Hygiene Society (BOHS) on 01332 298101 or at www.bohs.org/ for lists of qualified hygienists who can help you.

Look in Yellow Pages under 'Health and safety consultants' and 'Health authorities and services' for occupational physicians (doctors and nurses). Also see www.nhsplus.nhs.uk/.

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance as illustrating good practice.

Employee checklist

- Is the workroom ventilation switched on and working properly?
- If there is extraction fitted to the press, is it switched on?
- Look for signs of wear and damage.
- If you find any problems, tell your supervisor or safety/employee representative. Don't just carry on working.
- Wear your protective equipment as directed.
- Throw away protective gloves at the end of the shift.
- Don't use damaged gloves.
- Remember that gloves increase the risk of entanglement with rollers and cylinders.
- Never use solvents to clean your hands - only use proprietary skin cleansers.
- Use skin creams provided, as instructed.
- Check your skin regularly for dryness or soreness - tell your supervisor if these appear.
- Co-operate with health surveillance for dermatitis.
- Wash your hands before eating and drinking and before you leave work.
- Don't smoke in the work area.