

MR4

COSHH essentials in motor vehicle repair



This information will help employers, the self-employed and franchisees to comply with the Control of Substances Hazardous to

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

It is also useful for trade union and employee safety representatives.

This sheet describes good practice using an extracted booth.

It covers the points you need to follow to reduce exposure to an adequate level.

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

'Isocyanate' means all isocyanate-based two-pack products. It may be described as 'prepolymer'. This still contains active isocyanate.

Main points

- Painting produces solvent vapours and may produce small amounts of spatter.
- Make sure the controls work.
- Use health surveillance for asthma and dermatitis - see sheets G402 and G403.
- Also see sheet MRO.

Brush or roller application of two-pack (2K) products

Control approach 2 Engineering control

Hazard

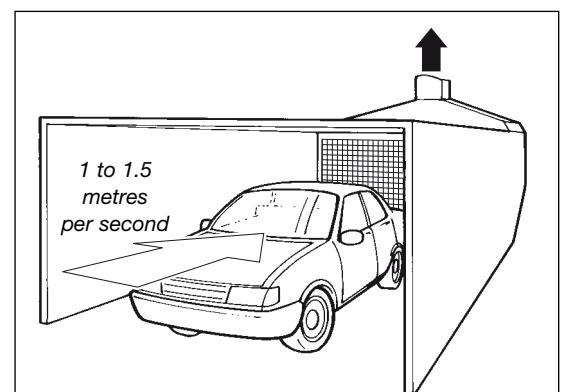
- ✓ Isocyanate can cause dermatitis by skin contact and asthma by breathing in paint mist. Even short-term exposures can cause harm.
- ✓ If an individual develops occupational asthma, avoid further exposure.
- ✓ There is no evidence for cancer from isocyanate in paints.

Access and premises

- ✓ Only allow access to trained staff who are under health surveillance.
- ✓ Keep everyone else away from all work with two-pack products.

Equipment

- ✓ You can apply two-pack primer in the open workshop if it is:
 - less than 1 litre per day; and
 - for less than 30 minutes per day.
- ✓ Otherwise, apply paint in an extracted draught or cross-draught booth.
- ✓ You need an air speed between 1 and 1.5 metres per second into the booth.
- ✓ Fit a manometer or pressure gauge near the extraction point, to show that the extraction is working properly.
- ✓ Discharge cleaned, extracted air outside the building, away from doors, windows and air inlets.
- ✓ Have a supply of clean air coming into the workroom to replace extracted air.
- ✓ Consult a qualified ventilation engineer to design new control systems and to update current controls - see sheet G406.



Personal protective equipment (PPE)

- ✓ Respiratory protective equipment (RPE) is not normally needed.
- ✓ Air-fed breathing apparatus may be needed for work beneath vehicles (eg undersealing) or extensive jobs (eg commercial vehicles). Biological monitoring will help you to decide - see sheet G408.

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- ✓ Provide disposable coveralls. Discard these at the end of a day's work.
 - ✓ Provide chemical resistant gloves, eg nitrile. Single-use gloves are preferred.
 - ✓ Throw away single-use gloves every time they are taken off.
 - ✓ Skin creams are important for skin protection and help in washing contamination from the skin. After work creams help to replace skin oils.
 - ✓ Where you have to use a strong hand cleaner, remind workers to wash off residues with soap and water.

Caution: 'Barrier creams' or 'liquid gloves' do not provide a full barrier. Never use thinners to clean skin.

Procedures

- ✓ If you need extraction, confirm that it is turned on and working at the start of work. Check the gauge.
- ✓ Painters should avoid creating paint mists and work upwind of freshly painted surfaces.
- ✓ Keep away for at least 30 minutes for the paint to cure.

Maintenance, examination and testing

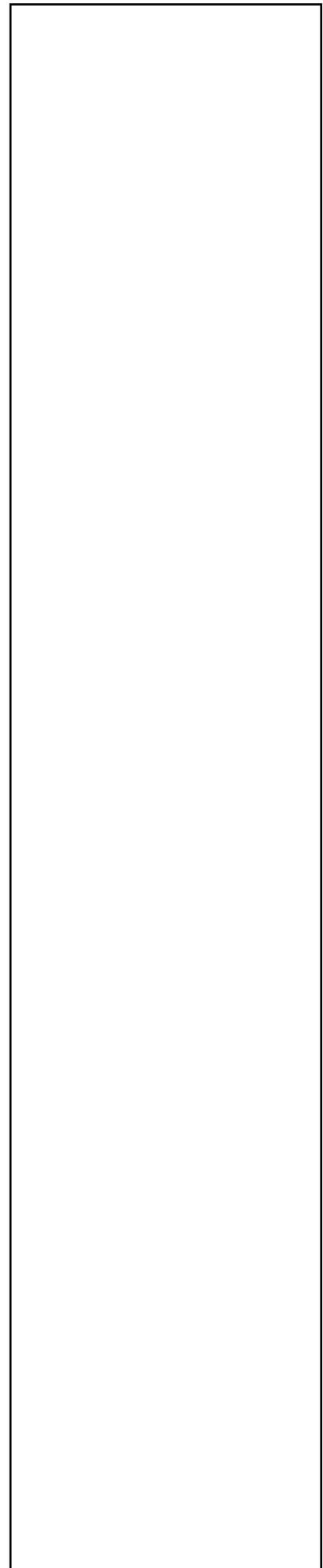
- ✓ Keep equipment in effective and efficient working order - follow instructions in user manuals.
- ✓ If the extraction system is faulty, stop work until it is repaired.
- ✓ Every day, look for signs of damage.
- ✓ At least once a week, check that the extraction system and gauge work properly.
- ✓ You need to know the manufacturer's specification to check the extraction's performance.
- ✓ If this information isn't available, hire a competent ventilation engineer to determine the performance needed for effective control.
- ✓ The engineer's report must show the target air speeds.
- ✓ Keep this information in your testing logbook.
- ✓ Get a competent ventilation engineer to examine the system thoroughly and test its performance at least once every 14 months. See the HSE publication HSG54 - see 'Further information'.
- ✓ Keep records of all examinations and tests for at least five years.

Health surveillance

- ✓ Use low-level health surveillance for asthma - see sheet G402. There is a chance of asthma developing when using isocyanates, even with good controls in place.
- ✓ Use health surveillance for dermatitis - see sheet G403.
- ✓ Consult an occupational health professional - see 'Useful links'.

Cleaning and housekeeping

- ✓ Clean general workrooms once a week.
- ✓ Deal with spills immediately - absorb liquid spills with granules and decontaminate. Provide RPE for cleaning up larger spills.
- ✓ Decontaminate brushes, rollers and wipes before disposal as hazardous waste.



Decontamination of isocyanate

- ✓ Ask your product supplier or read the safety data sheet. You can use a solution of sodium carbonate (washing soda) in water, 50g per litre. Add to the isocyanate and leave for several days to decontaminate.

Training and supervision

- ✓ Working in the right way and using the controls correctly is important for controlling exposure. Train and supervise workers. See sheet MR0.
- ✓ Tell your workers:
 - which two-pack paints and products contain isocyanates; and
 - that these can cause asthma and dermatitis.
- ✓ Provide health and safety training. Include supervisors and managers. Ask your trade association, local college or paint supplier for advice on training providers.

Further information

- Safety in motor vehicle repair: Working with 2-pack isocyanate paints Leaflet INDG388 HSE Books 2003 (single copy free or priced packs of 10 ISBN 0 7176 2756 X) Web version: www.hse.gov.uk/pubns/indg388.pdf
- Preventing asthma at work. How to control respiratory sensitisers L55 HSE Books 1994 ISBN 0 7176 0661 9
- *Maintenance, examination and testing of local exhaust ventilation* HSG54 (Second edition) HSE Books 1998 ISBN 0 7176 1485 9
- *Preventing dermatitis at work: Advice for employers and employees* Leaflet INDG233 HSE Books 1996 (single copy free or priced packs of 15 ISBN 0 7176 1246 5)
- For environmental guidelines see sheet MR0

Useful links

- Your trade association may advise on health and safety consultants and training providers.
- HSE priced and free publications are available from HSE Books Tel: 01787 881165 Website: www.hsebooks.co.uk.
- For information about health and safety ring HSE's Infoline Tel: 0845 345 0055 Textphone: 0845 408 9577 e-mail: hse.infoline@natbrit.com.
- 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 the Yellow Pages under 'Health and safety consultants' and 'Health authorities and services' for 'occupational health'.
- Also see www.nhsplus.nhs.uk.

Employee checklist

- Keep unprotected people away while you are using two-pack products.
- If you need to use extraction, is it switched on and working properly? Check the gauge.
- Decontaminate spills immediately, then clear them up as soon as possible.
- Look for signs of leaks, wear and damage.
- If you find any problems, tell your supervisor. Don't just carry on working.
- Co-operate with health surveillance.
- Use, maintain and store your PPE in accordance with instructions.
- Throw away single-use gloves every time you take them off.
- Wash your hands before eating, drinking, smoking and using the lavatory.
- Never use solvents to clean your skin.
- Use skin creams provided as instructed.

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.