

MR6

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 fume extraction.

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' is given off from hot work on panels painted with two-pack (2K) paint.

Main points

- Hot work can produce fume containing isocyanate.
- Keep exposures as low as possible using all the controls in this sheet.
- Use health surveillance for asthma - see sheet G402.
- Also see sheet MRO.

Hot work on painted panels (eg welding, cutting, grinding)

Control approach 2 Engineering control

Hazard

- ✓ Isocyanate in fume can cause asthma.
- ✓ Control exposure to stop occupational asthma developing. Even short-term exposures can cause harm. If an individual does develop occupational asthma, avoid further exposure.

Access and premises

- ✓ Only allow access to trained staff who are under health surveillance.

Equipment

- ✓ Do hot work - welding, cutting and grinding - with fume extraction. Use a booth or a fume hood on a flexible arm. See sheets WL3 or WL4.
- ✓ You need an air speed between 1 and 1.5 metres per second into a booth, or between 5 and 10 metres per second into a moveable hood.
- ✓ 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.
- ✓ You need an air-fed welding helmet type LHD2 (BS EN 1835) for welding and cutting in restricted places. See sheet R3.
- ✓ Provide disposable coveralls. Discard these at the end of a day's work.
- ✓ Skin creams are important for skin protection and help in washing contamination from the skin. After work creams help to replace skin oils.

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

Procedures

- ✓ Can you remove the paint before doing hot work?
- ✓ Always confirm that extraction is turned on and working at the start of work. Check the gauge.
- ✓ Capture fume: position any moveable extraction hood close to the work.

Maintenance, examination and testing

- ✓ Keep equipment in effective and efficient working order - follow instructions in maintenance manuals.
- ✓ Every day, look for signs of damage.
- ✓ At least once a week, check that the extraction and gauge work properly.
- ✓ You need to know the manufacturer's specifications 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'.
- ✓ Use biological monitoring to detect personal exposure to isocyanate - see sheet G408.
- ✓ Keep records of all examinations and tests for at least five years.

Health surveillance

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

Cleaning and housekeeping

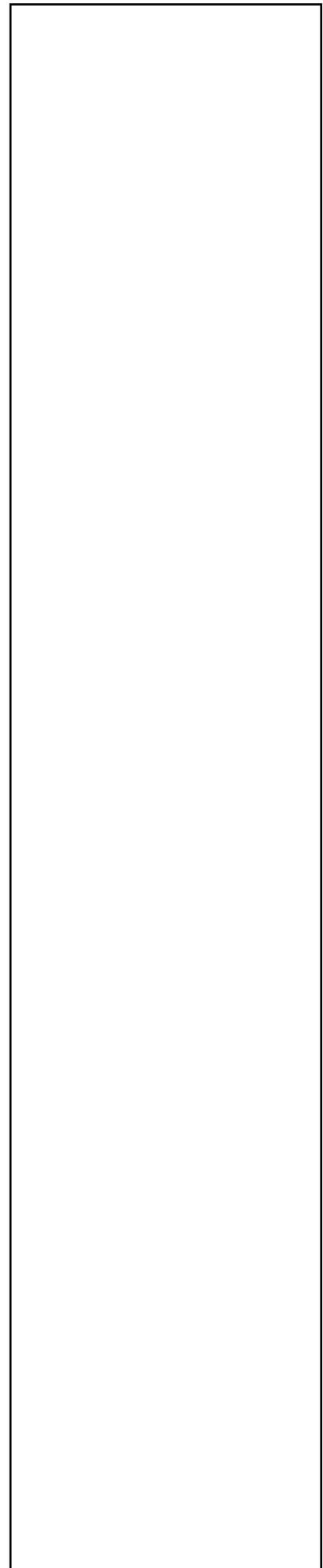
- ✓ Clean general workrooms once a week.

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 MRO.
- ✓ Tell your workers:
 - if you think that surfaces are painted with a polyurethane (PU) or 2K coating; and
 - that hot work on these can cause asthma, and the signs to watch out for.
- ✓ 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
- *Respiratory protective equipment at work: A practical guide* HSG53 (Third edition) HSE Books 2005 ISBN 0 7176 2904 X
- Welding advice sheets WL3 and WL4 are available at www.hse.gov.uk/welding/index.htm
- 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.
- See www.hse.gov.uk/metalworking.
- 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.
- British Standards are available from BSI Customer Services, 389 Chiswick High Road, London W4 4AL Tel: 020 8996 9001 Fax: 020 8996 7001 e-mail: cservices@bsi-global.com Website: www.bsi-global.com.

Employee checklist

- Is the extraction switched on and working properly? Check the gauge.
- 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.
- 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.