

RBO

COSHH essentials for
rubber manufacturers

Advice for managers

The Control of Substances Hazardous to Health Regulations 2002 (COSHH) require employers to ensure that exposure is prevented or, where this is not reasonably practicable, adequately controlled. This guidance gives practical advice on how this can be achieved by applying the principles of good practice for the control of exposure to substances hazardous to health, as required by COSHH.

It is aimed at people whose responsibilities include the management of substances hazardous to health at work (eg. occupational health specialists, anyone undertaking COSHH assessments and supervisors). It is also useful for trade union and employee safety representatives. It will help you carry out COSHH assessments, review existing assessments, deliver training and supervise activities involving substances hazardous to health.

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory, unless specifically stated, 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.

See Essential information near the end of the sheet.

Introduction

HSE has produced these advice sheets to help employers assess and control risks from hazardous substances in the workplace. For some common tasks, the sheets take into account the health hazards (and exposure potential) of substances used or produced, to identify an approach appropriate to control the risks.

The RB series describes good practice for managing the control of exposure to rubber process dust and rubber fume in the rubber industry. Follow all the points, or use equally effective measures to comply with workplace exposure limits (WELs).

RB1	Fume – general ventilation
RB2	Bag opening and weighing
RB3	Mixing ingredients
RB4	Milling rubber
RB5	Rubber press (small articles)
RB6	Trimming and finishing (small articles)
RB7	Cooling rack (small finished articles)

What the sheets cover

Reducing exposure to an adequate level always involves a mixture of equipment and ways of working. This means employers should:

- choose the most effective and reliable control measures;
- make sure they are used properly by instructing, training and supervising workers;
- use regular maintenance to make sure control measures keep on working;
- check and review all elements of control measures regularly for their continued effectiveness.

Each sheet gives advice on how to achieve this for a particular task based on known risks in the manufacture of rubber goods.

Hazards

- ✓ Rubber is widely used in the manufacture of a variety of products. The exact composition of rubber varies depending on the intended use.
- ✓ Epidemiological studies have shown that chronic inhalation of rubber dust and fume in rubber factories can cause higher than normal incidence of some types of cancers. In addition, skin exposure to rubber dust and fume may cause dermatitis and skin allergies.

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- ✓ Rubber process dust arises in the stages of rubber manufacture where ingredients are handled, weighed, added to or mixed with uncured material or synthetic elastomers. It does not include dusts arising from the abrasion of cured rubber, eg. from buffing or trimming.
 - ✓ The workplace exposure limit (WEL) of rubber process dust is detailed in HSE publication EH40/2005 Workplace Exposure Limits:
EH40/2005 Workplace Exposure limits
 - ✓ Rubber fume is developed when mixing, milling and blending natural rubber with synthetic elastomers, or polymers combined with chemicals, and in the processes which convert the resultant blends into finished products or parts – including any inspection procedures where fume continues to be produced.
 - ✓ You may need to carry out health surveillance for your employees. See sheet G403.
 - ✓ You also need to make exposure assessments and may need air sampling. See sheet MDHS47/3.

How to use the sheets

- ✓ Consider the processes/tasks and hazardous substances in your workplace.
- ✓ Look for opportunities to substitute with less hazardous materials.
- ✓ Examine the advice sheets for each of the tasks.
- ✓ Examine the essential information sheets listed on each advice sheet.
- ✓ Compare operations in your workplace with recommendations in the advice sheets for all of the relevant tasks.
- ✓ Record your findings (this forms part of your risk assessment).
- ✓ Record any actions you need to take, covering: issues identified, planned actions, target completion date, person responsible, status of any issues, and a review of effectiveness.
- ✓ Keep a record of your actions to prevent exposure of workers to hazardous materials.

You may have to change old working practices or implement new controls. Decide how best to make any changes required 'across the board'. If you are in doubt, seek expert help. Ask your trade association, trade union or contact a consultant (see Further information).

Essential information

You can find the full COSHH essentials series at www.hse.gov.uk/coshh/essentials/

Health surveillance, monitoring and sampling sheets are available at www.hse.gov.uk/pubns/guidance/gseries.htm

Health surveillance for occupational dermatitis COSHH Guidance Sheet G403 HSE 2011 www.hse.gov.uk/pubns/guidance/g403.pdf

Exposure measurement: Air sampling COSHH Guidance Sheet G409 HSE 2016 www.hse.gov.uk/pubns/guidance/g409.pdf

Further information

Determination of rubber process dust and rubber fume (measured as cyclohexane-soluble material) in air: Laboratory method using sample collection on filters, gravimetric determination and soxhlet extraction, MDHS47/3, HSE 2015, www.hse.gov.uk/pubns/mdhs/index.htm

Respiratory protective equipment at work: A practical guide, HSG53 (Fourth edition), HSE 2013, www.hse.gov.uk/pubns/books/HSG53.htm

Controlling airborne contaminants at work: A guide to local exhaust ventilation (LEV), HSG258, HSE 2011, www.hse.gov.uk/pubns/books/hsg258.htm

Occupational Safety and Health Consultants Register: www.oshcr.org/

HSE's health surveillance website: www.hse.gov.uk/health-surveillance/

For information about health and safety visit <https://books.hse.gov.uk> or <http://www.hse.gov.uk>

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