

MCO

COSHH essentials for the
microelectronics industry

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, supervisors and 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 have 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 MC series describes good practice for controlling exposures to hazardous products and by-products encountered in Microelectronics. They cover the key points you need to follow to reduce exposure to an adequate level. Follow all the points, or use equally effective measures to comply with workplace exposure limits (WELs).

MC1	Wet etch processing
MC2	Chemical vapour deposition
MC3	Dry etch processing
MC4	Epitaxial deposition
MC5	Photolithography
MC6	Ion implantation

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.

Hazards

Hazardous products and by-products encountered in the electronics industry include dusts, mists, vapours and gases that can be irritants, corrosive, pyrophoric (can spontaneously ignite) and very toxic. The products and by-products are dependent on the processes.

Check safety data sheets for a full list of the hazardous properties of the substances used and check COSHH essentials sheets for the tasks undertaken.

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 spend money on new controls. Decide how best to make any changes required 'across the board'. If you are in doubt, seek expert help, don't give up! Ask your trade association, trade union or contact a consultant (see Further information).

Essential information

- S100 - General advice
- S102 - Selection of personal protective equipment
- G403: Health surveillance for occupational contact dermatitis (OCD)
- G406: New and existing engineering controls
- G409: Exposure measurement: Air sampling

Further information

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

The Directory of Occupational Hygiene Services
<http://www.bohs.org/consultant/>

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

Controlling airborne contaminants at work: A guide to local exhaust ventilation (LEV) HSG258 HSE Books 2011 ISBN 978071766613 3
www.hse.gov.uk/pubns/books/hsg258.htm

Health surveillance <http://www.hse.gov.uk/health-surveillance/index.htm>

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

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