

R5

COSHH essentials: Respiratory protective equipment (RPE)



This information will help employers comply with 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.

The sheet covers how to select and use breathing apparatus RPE (BA RPE) with a **UK Standard Assigned Protection Factor of 40 (APF 40)**.

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

RPE is not a substitute for engineering controls. It is difficult to use, expensive in the longer run, and always fails to danger.

If you are using the right controls, RPE is not normally needed. However, some processes always need RPE.

Breathing apparatus with UK Standard Assigned Protection Factor 40

Control approach R Supplementary advice

You should use RPE:

- while you are planning to install engineering control;
- clearing up a spillage;
- maintenance;
- emergencies;
- cleaning, eg pressure washing;
- a short term one-off procedure; and
- whenever required for safe working.

Selection of BA RPE with an APF of 40 or more

- ✓ RPE is designed to help protect workers from dusts, fumes, vapours or gases. This sheet describes breathing apparatus (BA) that supplies clean air. Fill in the selection table on page three and show it, with safety data sheets, to your RPE supplier.

Types of RPE available are:

- Fresh air hose BA EN 138/269;
- compressed airline BA hood/helmet/visor LDH3 EN 1835;
- constant flow compressed airline BA hood EN 270/271 or mask EN 139 or 12419;
- constant flow compressed airline BA full face mask EN 139; and
- constant flow compressed airline BA LDM3 mask EN 12419.

Planning and preparation

- ✓ Plan for and practice emergency procedures.
- ✓ Get up-to-date safety data sheets for all chemicals and products.
- ✓ Make sure you get initial fit testing done. Ask the supplier for help in fit testing and arranging training, or contact BOHS - see 'Further information'.

Using RPE

- ✓ Wearers must be medically fit to wear RPE – seek medical advice if you are not sure.
- ✓ All types of RPE restrict what the wearer can do. It is uncomfortable to wear, particularly for long periods of time.
- ✓ The RPE has to be worn all the time, and until the wearer is away from the contaminated air.
- ✓ The RPE needs to fit the person. If the RPE depends on a face seal, it won't work if the worker has face hair or stubble.
- ✓ Users should check the fit every time they put on RPE.
- ✓ Make sure the air supplied to breathing apparatus is fit to breathe, free of oil, water, carbon monoxide and other fumes. Take care not to trip over BA air hoses.

Maintenance

- ✓ Keep RPE clean and in good working order – follow the manufacturers' instructions.
- ✓ Maintain RPE at least once every three months. Replace valves, face seals and worn or damaged parts on respirators. The valves need changing frequently if substances such as paint sprays land on them.
- ✓ Store RPE in a safe place, away from contamination.
- ✓ Keep a small stock of replaceable parts.
- ✓ Remember to check the expiry dates on RPE.
- ✓ Check the air quality to air-fed RPE at least once every three months, or before use, and check the air flow every time. Make sure compressors (including mobile compressors) take in only clean air.

Training

- ✓ Make sure that RPE users know how to check their equipment is working properly before they put it on, how to check face fit, how to replace worn or defective parts, and know about the RPE's limitations.
- ✓ Tell workers to stop work and leave the area if they think their RPE isn't working properly.
- ✓ Your RPE supplier may be able to advise you on training.

Further Information

- *Respiratory protective equipment at work: A practical guide* HSG53 (Third edition) HSE Books 2005 ISBN 0 7176 2904 X
- Contact the British Occupational Hygiene Society (BOHS) on 01332 298101 or at www.bohs.org for lists of qualified hygienists who can help you.

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.



Selection of RPE

Fill in the selection table below and show it, with safety data sheets, to your RPE supplier.

Information to help your RPE supplier	
Task / Job name	
Chemicals used (Section 2 of safety data sheet)	
Physical form	<input type="checkbox"/> Gas <input type="checkbox"/> Fume <input type="checkbox"/> Mist <input type="checkbox"/> Vapour <input type="checkbox"/> Dust
If a liquid, water or solvent based?	<input type="checkbox"/> Water <input type="checkbox"/> Solvent <input type="checkbox"/> Not sure
Is the humidity high?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
How long does the task take?	___ hours ___ minutes
Confined space?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
Explosive / flammable in air	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
Work rate	<input type="checkbox"/> Heavy <input type="checkbox"/> Medium <input type="checkbox"/> Light
Space to do task	<input type="checkbox"/> Restricted <input type="checkbox"/> Unrestricted
Amount of moving around	<input type="checkbox"/> One place <input type="checkbox"/> Many places
Vision requirement	<input type="checkbox"/> All round <input type="checkbox"/> Not relevant
Spoken communication	<input type="checkbox"/> Necessary <input type="checkbox"/> Not relevant
Wearer's physical fitness	<input type="checkbox"/> OK <input type="checkbox"/> Not sure (ask a doctor)
Wearer's aspect	<input type="checkbox"/> Face hair <input type="checkbox"/> Spectacles <input type="checkbox"/> Turban
What other PPE worn?	<input type="checkbox"/> Hard hat <input type="checkbox"/> Ear muffs <input type="checkbox"/> Visor <input type="checkbox"/> Goggles