

OCE4

Offshore COSHH essentials



This information will help offshore dutyholders (owners, operators and contractors) to comply with the Control of Substances Hazardous to Health Regulations 2002 (COSHH), as amended, to protect workers' health.

This guidance consolidates good control practice and reinforces existing knowledge with additional information.

It will help you carry out COSHH assessments, review existing assessments, deliver training and in supervising activities involving substances hazardous to health.

It is aimed at staff whose responsibilities include the management of substances hazardous to health on offshore installations (eg occupational health specialists, COSHH assessors, supervisors etc). It is also useful for trade union and employee safety representatives.

Following this guidance is not compulsory and you are free to take other action. But if you do follow this 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.

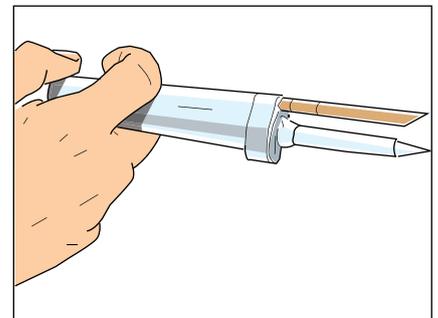
Also see essential information on the back of the sheet.

Soldering

Control approach 2 Engineering control

What this sheet covers

This sheet describes good practice for soldering with rosin-based solders, and for desoldering. It covers the key points you need to follow to help reduce exposure to an acceptable level, as part of your COSHH assessment.



Hazards

- ✓ Fume from rosin-based solder may cause asthma.
- ✓ The workplace exposure limits (WELs) for rosin-based solder fume are as low as reasonably practicable below 0.05 mg/m³ (8-hour time-weighted average (TWA)) and 0.15 mg/m³ (15-minute TWA).

Access

- ✓ So far as possible, solder and desolder in the workshop.
- ✓ Locate the work away from doors and walkways: stop draughts interfering with fume extraction.

Equipment and procedures

- ✓ Where possible, use rosin-free or rosin-reduced solder.

Control equipment

- ✓ Provide an extracted enclosure, or high-velocity low-volume (HVLV) tip extraction for the soldering iron.
- ✓ An extracted booth needs an inward air speed between 0.3 and 0.5 metre/second.
- ✓ If you use a capture hood, always keep it close to the soldering point.
- ✓ If you use tip extraction, provide extraction tubes with a diameter greater than 5 mm. The manufacturer's instructions should give the extraction speed.
- ✓ Fit an airflow indicator to show that extraction is working properly.
- ✓ Discharge extracted air to a safe place.

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- ✓ Use soldering irons at the lowest temperature possible for acceptable jointing or desoldering.

Caution: Don't use bench-mounted filtration units that return air to the workroom unless they are fitted with HEPA filters.

Personal protective equipment (PPE) – see OCM3

- ✓ Respiratory protective equipment (RPE) should not be needed.

Other protective equipment

- ✓ Provide and ensure that workers use protective gloves. Single-use nitrile gloves are acceptable. If you must use latex gloves, use only 'low-protein, dust-free' gloves.
- ✓ Throw away single-use gloves every time they are taken off.

Maintenance, examination and testing

Checking and maintenance

- ✓ Keep equipment in effective and efficient working order. Follow the instructions in the manual.
- ✓ Check for signs of damage at start of every shift. If any equipment is faulty, repair it straight away.
- ✓ When using tip extraction, keep extraction tubes free of condensed fume. Clear the fumes at least once an hour, and wash them out thoroughly at the end of each shift.
- ✓ At least once a week, check that the extraction system and gauges work properly.

Examination and testing

- ✓ Extraction systems require statutory 'thorough examination and testing' (TEt).
- ✓ Get a competent ventilation engineer to perform the TEt at least once every 14 months (see HSE publication HSG258).
- ✓ Carry out all actions arising from the TEt.

Records

- ✓ Keep records of all examinations and tests for at least five years.

Exposure monitoring

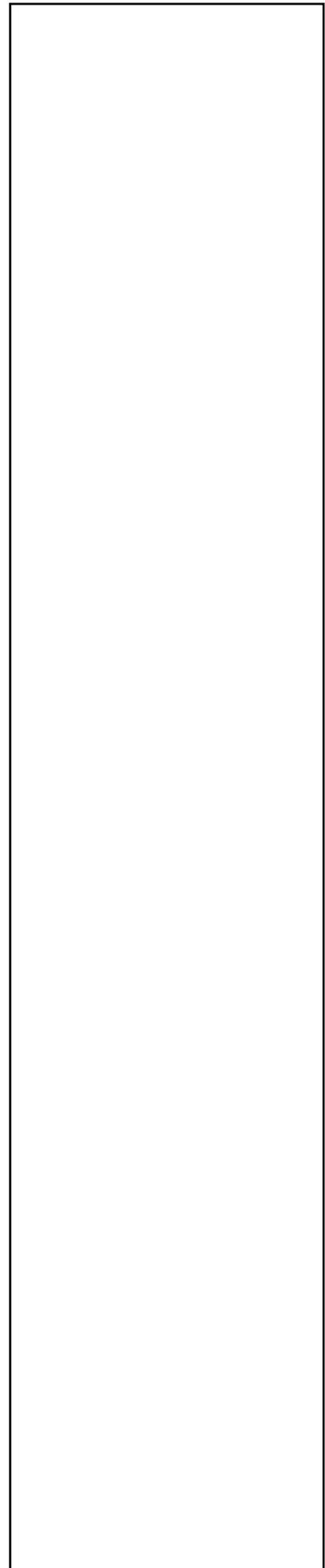
- ✓ Monitoring is not normally necessary.

Cleaning and housekeeping

- ✓ Clean the workshop once a week.
- ✓ Dispose of hazardous wastes safely.

Personal decontamination and skin care

- ✓ Provide warm water, mild skin cleansers, nailbrushes, and soft paper, fabric towels or hot air for drying. Avoid abrasive cleansers.
- ✓ Tell workers to wash hands before every break.
- ✓ Provide pre-work skin creams, which will make it easier to wash dirt from the skin, and after-work creams to replace skin oils.



Health surveillance

- ✓ Conduct low-level health surveillance for asthma using a respiratory questionnaire administered by a suitably trained responsible person.

Training and supervision

- ✓ Provide supervision – ensure that safe work procedures are followed.
- ✓ Explain the early signs of asthma.
- ✓ Training includes toolbox talks on:
 - how to use equipment properly;
 - how to check that extraction is working properly; and
 - what to do if something goes wrong.
- ✓ Involve managers and supervisors in health and safety training.

Essential information

OCE0 *Advice for managers*

OCM2 *Local exhaust ventilation (LEV)*

OCM7 *Health surveillance*

Employee checklist

- Do you know how to use the control equipment properly?
- Is the extraction working?
- Look for signs of wear and damage to equipment.
- If you find any problem, get it fixed. Don't just carry on working.
- Co-operate with health surveillance.
- Wash hands before eating, drinking or using the lavatory.

Other hazards

- Electrical (PAT tests needed)

Further information

Controlling airborne contaminants at work: A guide to local exhaust ventilation (LEV)
HSG258 HSE Books 2008
ISBN 978 0 7176 6298 2
www.hse.gov.uk/pubns/books/hsg258.htm

Exposure measurement: Air sampling G409
www.hse.gov.uk/pubns/guidance/g409.pdf

Workplace exposure limits EH40
www.hse.gov.uk/coshh/table1.pdf

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

This guidance was developed by representatives from the UK offshore oil and gas industry and trade unions, with HSE.