

# MW3

## COSHH essentials for machining with metalworking fluids



This information will help employers (including the self-employed) comply with the Control of Substances Hazardous to Health

Regulations 2002 (COSHH), as amended, to control exposure and protect workers' health.

It is also useful for trade union safety representatives.

Metalworking fluids can cause skin diseases such as dermatitis.

This sheet describes good practice using personal protective equipment (PPE).

It covers the points you need to follow to reduce exposure.

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

Get safety data sheets for cleaners and additives. Can you use safer products?

### Main points

- Use permit-to-work systems for potentially hazardous cleaning operations.
- Provide good facilities for personal decontamination.
- Keep exposure low using all the controls in this sheet.
- Health surveillance for dermatitis is usually needed. See sheet G403.

See [www.hse.gov.uk/metalworking](http://www.hse.gov.uk/metalworking).

# Sump cleaning: Water-mix fluids

## Control approach S

### Harm via skin or eye contact

#### Access and premises

- ✓ Provide clean facilities for washing and taking refreshment, away from all machining areas.

#### Equipment

- ✓ Provide equipment to remove and replace sump fluids with minimum spillage. Never put clean fluid in a dirty sump.
  - ✓ Provide chemical-resistant gloves.
  - ✓ Keep absorbent material to hand in case of spillages.
- Caution: Don't use plain water for washing out. You may de-passivate metal surfaces and increase corrosion risks.**

#### Procedures

- ✓ Decide how often you need to clean your system. Discuss this with your fluid supplier.
- ✓ Prepare a permit to work for any cleaning in potentially confined spaces.
- ✓ Follow your supplier's guidelines as well as this sheet.
- ✓ Check your supplier's recommendation for dosage levels and circulation times. Mark these in the gaps in the list below and follow the steps shown in the flow chart on page two:

- System cleaner (a) - amount to add: \_\_\_% by volume ( \_\_\_ litres).
- Circulation time (b): At least \_\_\_ hours with all fluid pipes open.
- Second cleaner (c) - amount to add: \_\_\_% by volume ( \_\_\_ litres).
- Second circulation time (d): At least \_\_\_ hours.

- ✓ If you follow the guidance in this series of sheets, systems should never become heavily contaminated with bacteria.

#### Deep-cleaning

- ✓ Check the HSE website - see 'Useful links'.

**Maintenance examination and testing**

- ✓ Test fluid quality as outlined in sheet MW5.

**Personal protective equipment (PPE)**

- ✓ Provide storage for PPE to prevent damage or contamination when not in use.

*Respiratory protective equipment (RPE)*

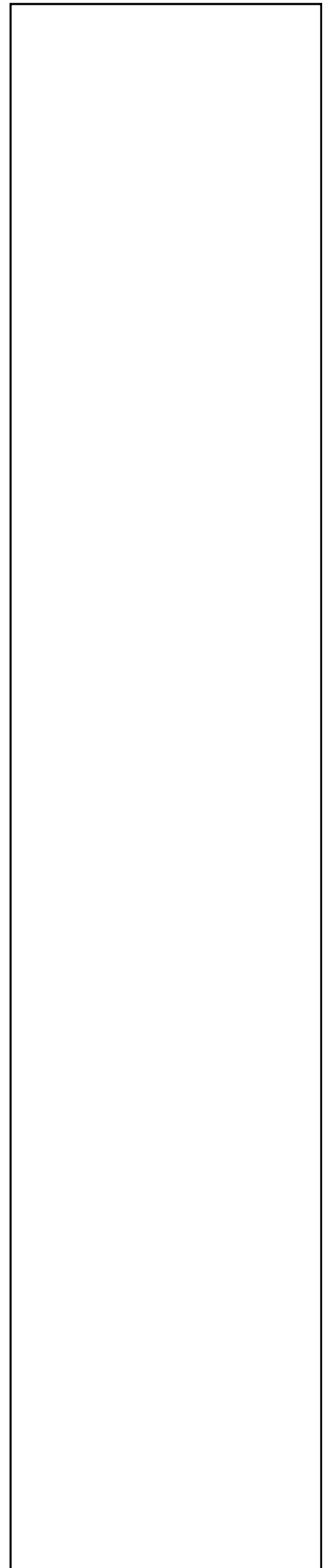
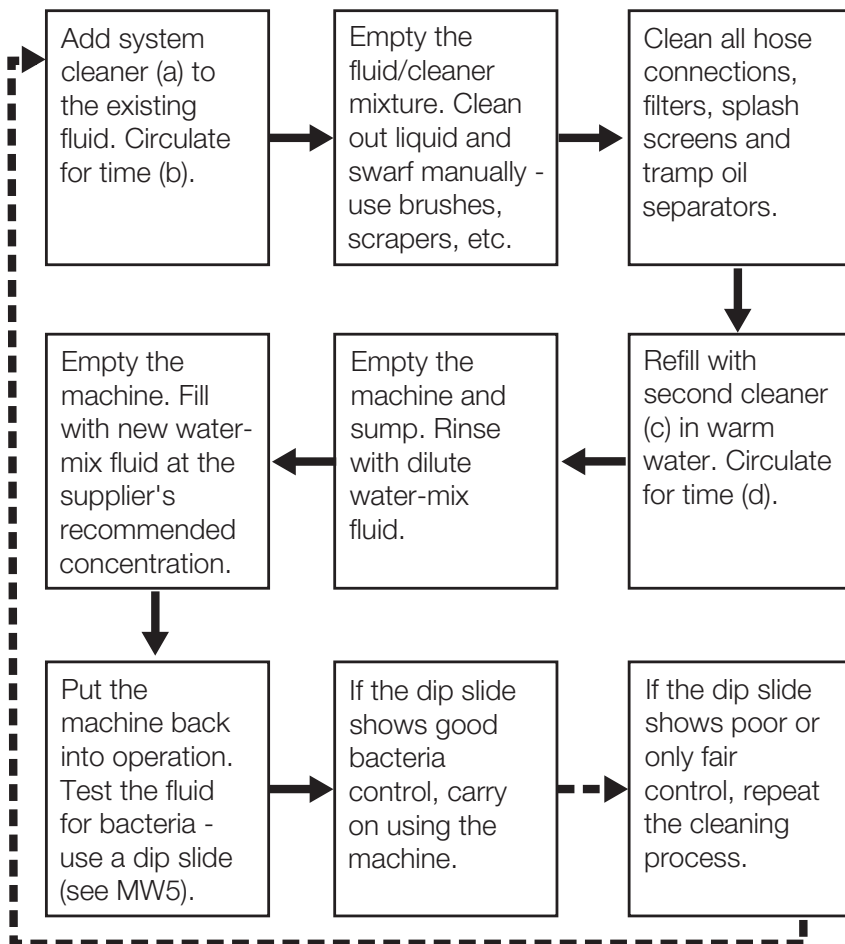
- ✓ RPE is not normally needed.

*Protective gloves*

- ✓ Provide 0.4 mm nitrile gloves to BS EN 374 standard. These protect for up to eight hours only. These gloves are normally thin enough to provide dexterity.
- ✓ Provide thicker gloves to BS EN 374 and BS EN 388 standards to protect against abrasions and sharp edges.
- ✓ Workers should change and discard damaged gloves immediately. Deal with used gloves in accordance with the supplier's recommendations.

*Other PPE*

- ✓ Provide eye protection to BS EN 166 standard where there is a risk of splashing.
- ✓ Provide overalls and make sure forearms are covered.
- ✓ Ensure contaminated overalls are laundered before re-use.



### Skin care

- ✓ Keep hands clean and in good condition.
- ✓ Using pre-work creams helps make removing fluids easier. These do not provide a barrier, and are not a substitute for gloves.
- ✓ Provide after-work creams (moisturisers) to replace skin oils after washing hands.

### Health surveillance

- ✓ There is a chance of dermatitis developing, even with good controls in place. Skin surveillance is needed. See sheet G403.
- ✓ Consult an occupational health professional - see 'Useful links'.

### Training and supervision

- ✓ Tell workers about the risks of dermatitis.
- ✓ Working in the right way and following the method statement is important for exposure control. Train and supervise workers. See sheet MWO.

### Further information

- *Permit-to-work systems* Leaflet INDG98(rev3) HSE Books 1997 (single copy free or priced packs of 15 ISBN 0 7176 1331 3)
- *Preventing dermatitis at work: Advice for employers and employees* Leaflet INDG233 HSE Books 1996 (single copy free or priced packs of 15 ISBN 0 7176 1246 5)
- *Working safely with metalworking fluids: A guide for employees* Leaflet INDG365 HSE 2006 Web only version available at [hse.gov.uk/pubns/indg365.pdf](http://hse.gov.uk/pubns/indg365.pdf)

### Useful links

- HSE priced and free publications are available from HSE Books  
Tel: 01787 881165 Website: [www.hsebooks.co.uk](http://www.hsebooks.co.uk).
- See [www.hse.gov.uk/metalworking](http://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](mailto:hse.infoline@natbrit.com).
- Contact the British Occupational Hygiene Society (BOHS) on 01332 298101 or at [www.bohs.org](http://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](http://www.nhsplus.nhs.uk).

### Employee checklist

- Always follow the standard operating procedure.
- Make sure you know what to do if there is a fluid spill.
- Use, maintain and store your PPE as instructed.
- 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 or using the lavatory.
- Check your skin regularly for dryness or soreness – tell your supervisor if these symptoms appear.
- 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.