

# 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:

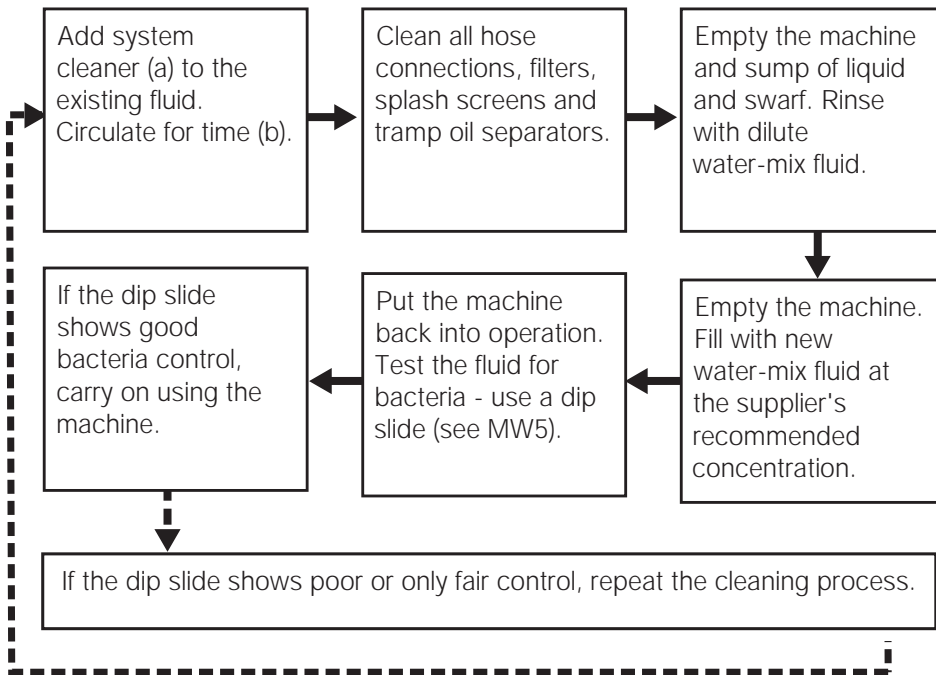
■ **System cleaner (a) - amount to add: \_\_\_% by volume ( \_\_\_ litres).**

■ **Circulation time (b): At least \_\_\_ hours with all fluid pipes open.**

- ✓ 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)

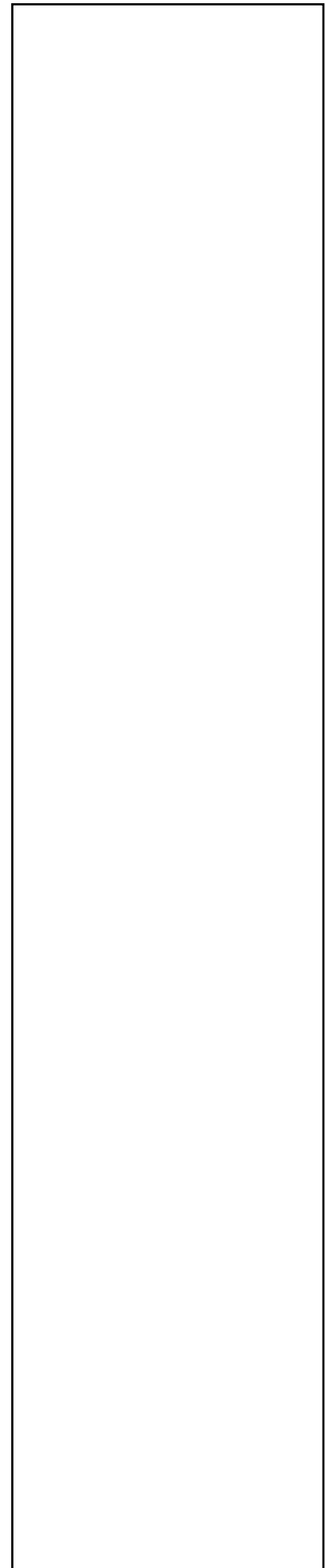
- ✓ RPE is not normally needed.

### 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 MW0.

### Further information

- *Guidance on permit-to-work systems: A guide for the petroleum, chemical and allied industries* HSG250 HSE Books 2005 ISBN 978 0 7176 2943 5 [www.hse.gov.uk/pubns/books/hsg250.htm](http://www.hse.gov.uk/pubns/books/hsg250.htm)
- *Preventing contact dermatitis at work* Leaflet INDG233(rev1) HSE Books 2007 (single copy free or priced packs of 15 ISBN 978 0 7176 6183 1) [www.hse.gov.uk/pubns/indg233.pdf](http://www.hse.gov.uk/pubns/indg233.pdf)
- *Working safely with metalworking fluids: A guide for employees* Leaflet INDG365 HSE 2010 Web only version available at [hse.gov.uk/pubns/indg365.pdf](http://hse.gov.uk/pubns/indg365.pdf)

### Useful links

- For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit [www.hse.gov.uk/](http://www.hse.gov.uk/). You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.
- See [www.hse.gov.uk/metalworking](http://www.hse.gov.uk/metalworking).
- 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).

This document is available at: [www.hse.gov.uk/pubns/guidance/](http://www.hse.gov.uk/pubns/guidance/) and [www.hse.gov.uk/coshh/essentials/](http://www.hse.gov.uk/coshh/essentials/)

**This document contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.**

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### 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.