

# WL21

## COSHH essentials for welding, hot work and allied processes



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.

Many pickling pastes contain hydrofluoric acid which causes very serious burns and is poisonous.

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

It covers the points you need to follow to reduce exposure to an adequate level.

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

### Main points

- Fluoride pastes can cause severe skin damage.
- Keep exposure as low as possible using all the controls in this sheet.
- See manufacturers' safety data sheets - select safer consumables.

# Weld cleaning with pickling paste

## Control approach S

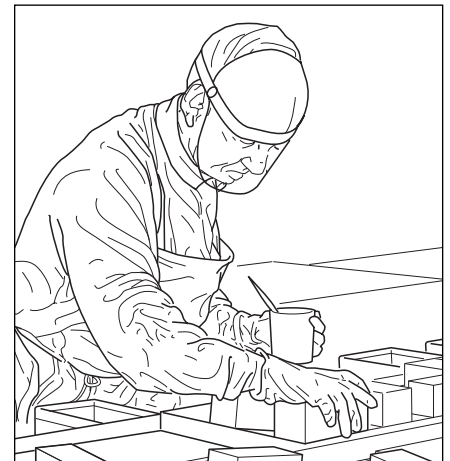
### Harm via skin or eye contact

#### Access and premises

- ✓ Only allow access to authorised staff.

#### Equipment

- ✓ Can you use alternative post-welding cleaning measures, eg mechanical or electrochemical?
- ✓ Provide a good standard of general ventilation; 5-10 air changes per hour, with a through draught.
- ✓ Can you use a paste with a lower acid concentration or a higher viscosity?
- ✓ All pastes are acid and will burn skin and eyes. Some contain nitric acid - this produces very irritating fumes.
- ✓ Many pastes contain hydrofluoric acid. This is very toxic and causes serious burns. Skin and eye damage can be permanent.
- ✓ Avoid paste spraying. If you must do this, seek specialist advice.
- ✓ Apply by brush rather than by roller.
- ✓ Avoid using pastes in confined spaces.
- ✓ Use an air blower to get fresh air into restricted working places.



#### Procedures

- ✓ Buy pastes in the right sized containers. Don't store far more than you need, and avoid decanting.
- ✓ Remove surplus paste with a damp cloth. Discard it immediately to contaminated waste.

#### First aid

- ✓ Ensure that first aid provisions are adequate. Stock calcium gluconate gel and keep it handy.
- ✓ Wash contaminated skin with large amounts of water.
- ✓ Apply gel to the affected area. Continue massaging this into the skin until the patient reaches hospital and gets medical attention.
- ✓ Procedures are described in the HSE publication INDG307 - see 'Further information'.

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### Personal protective equipment (PPE)

- ✓ Ask your safety equipment supplier to help you get the right PPE.
- ✓ Provide storage for clean and contaminated PPE.

### Respiratory protective equipment (RPE)

- ✓ RPE should not be needed.
- ✓ RPE is needed for paste spraying. Consult your supplier for advice.

### Other protective equipment

- ✓ Provide, and ensure that workers use face protection against splashes and neoprene protective gloves.
- ✓ Throw away gloves that show any sign of damage, or that you think may be contaminated inside.
- ✓ Use a properly equipped contract laundry or a suitable equivalent to wash work clothing.
- ✓ Skin creams help in washing contamination from the skin. After-work creams help to replace skin oils.

### Cleaning and housekeeping

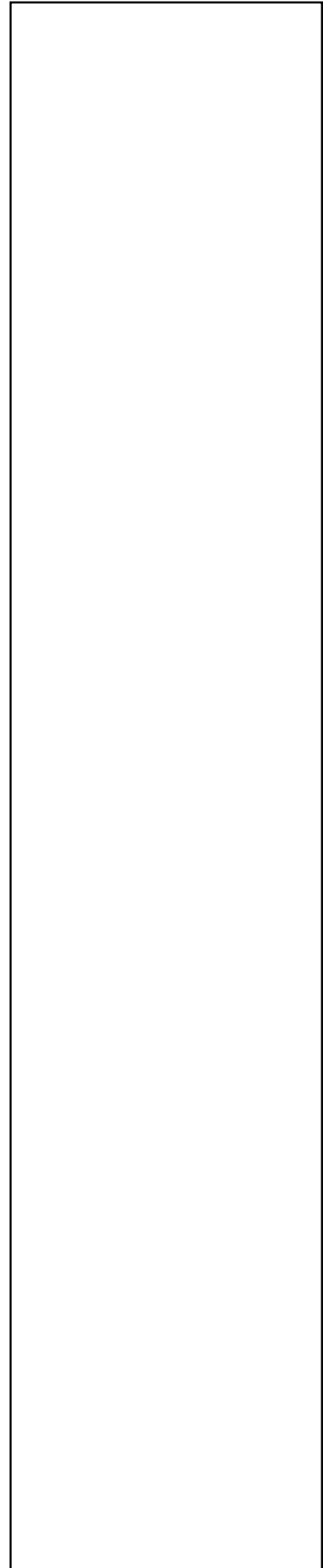
- ✓ Keep the outside of paste containers clean.
- ✓ Clean the general workroom once a week.
- ✓ Dispose of hazardous wastes safely.

### Training and supervision

- ✓ Tell workers that paste can cause serious skin and eye damage. Instruct them how to get first aid after any skin or eye contact.
- ✓ Working in the right way and using the controls correctly is important for exposure control. Train and supervise workers. See sheet WLO.

### Further information

- *General ventilation in the workplace: Guidance for employers*  
HSG202 HSE Books 2000 ISBN 0 7176 1793 9
- *Hydrofluoric acid poisoning: Recommendations on first aid procedures*  
Leaflet INDG307 HSE Books 1999 (single copy free or priced packs of 25 ISBN 0 7176 1751 3)
- For environmental guidelines see sheet WLO



### Useful links

- Your trade association may advise on health and safety consultants and training providers.
- HSE priced and free publications are available from HSE Books  
Tel: 01787 881165 Website: [www.hsebooks.co.uk](http://www.hsebooks.co.uk).
- HSE free leaflets can be downloaded from HSE's website:  
[www.hse.gov.uk/pubns](http://www.hse.gov.uk/pubns).
- 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

- Wear your personal protective equipment (PPE).
- Get first aid immediately if pickling paste comes into contact with your skin or eyes.
- Use, maintain and store your protective equipment in accordance with instructions.
- If you find any problems, tell your supervisor. Don't just carry on working.
- Wash your hands and face after using pickling pastes.
- Never clean your hands with solvents or concentrated cleaning products.
- 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.