**Personal Protective Equipment (PPE) for use with Glutaraldehyde Exposures**

**Glutaraldehyde Hazards**

The information obtained from answering the questions on sheet S100 will help determine which parts of the body are likely to be exposed to glutaraldehyde when performing different tasks.

- Train workers on the potential health hazards from glutaraldehyde exposure to ensure understanding of the importance for proper PPE selection and use.
- Avoid breathing glutaraldehyde vapours. Vapours may cause difficulty in breathing (asthma).
- Avoid splashing solution on the skin or in the eyes. Contact with glutaraldehyde solutions can lead to skin irritation and itching, rashes, blistering (dermatitis), and damage to the eyes.
- Never enter an area where a spill has occurred without the proper personal protective equipment (PPE) and training.

**Required PPE**

- Wear protective gloves—single-use nitrile gloves are acceptable.
- Latex gloves are not recommended for protection against exposure to glutaraldehyde. Glutaraldehyde readily passes through latex gloves, exposing skin to the hazards.
- Wear chemical splash goggles or a full face shield when pouring glutaraldehyde or when splashes are likely to occur during its use.
- Wear a lab coat with long sleeves or chemical protective apron
- Wear protective footwear (closed toes and heels, impervious material: not cloth or leather).
- Respiratory protective equipment (RPE) may be required in case of a spill or during large pouring tasks. Seek advice from your PPE supplier or Safety Manager.

**General Precautions**

- Follow the instructions on product labels and/or safety data sheets. Ask your safety-clothing supplier to help you purchase the appropriate PPE.
- Make sure you know how to check that PPE fits correctly. Seek advice from your supplier or Safety Manager.
- Dispose of single-use gloves and PPE every time you take them off.
- Skin creams are important for skin protection and help in washing contamination from the skin. These are not 'barrier creams' and do not protect the skin from glutaraldehyde exposure.
- Check protective equipment for damage both before and after use.
- Clean and maintain all PPE regularly. Wash reusable protective clothing on a regular basis at work or at a specialist laundry.
- Contaminated clothing should not be taken home to be washed.

**Chemical Protective Gloves**

- Gloves must be sufficiently robust not to tear or split while undertaking the work activity. They should have long cuffs to protect the forearm from exposure.
- Latex, leather, cotton, or stiched working gloves are not suitable for glutaraldehyde.
- If you do need to use single-use natural rubber latex gloves, they must be 'low-protein, powder-free' gloves. Refer to latex allergy web pages at www.hse.gov.uk/latex for further explanation.
- Do not touch the outside of a used glove with an unprotected hand when putting gloves on or taking gloves off.
Coveralls, Lab Coats, Aprons

- When pouring glutaraldehyde solutions, wear an impervious chemical protective apron to protect clothing and skin from splashes.
- Coveralls should preferentially cover the ankles, rather than being tucked into boots or shoes.
- Gloves should be worn over the sleeves to prevent seepage of glutaraldehyde solutions under clothing and into the gloves.

Protective Footwear

- Wear shoes constructed of materials impervious to glutaraldehyde to prevent penetration and protect the skin on the feet or ankles.
- Ensure protective footwear complies with the appropriate ANSI Standard.
- When there is a risk of a glutaraldehyde solution coming into contact with the lower leg, wear impervious boots or shoes and leg-coverings.

Eye and Face Protection

- When handling open containers or pouring glutaraldehyde solutions, wear a full-face shield to prevent face, neck, and eye contact with aerosol or vapor.
- Chemical splash goggles may be more practical when wearing a respirator.
- Surgical masks with eye shields do not protect the eyes from glutaraldehyde and are not a substitute for goggles or chemical faceshields.

Respiratory Protective Equipment (RPE)

- Surgical masks are not protective against glutaraldehyde vapors.

Cleaning and Housekeeping

- Keep the work area clean and well organized.
- Clean up spills promptly—practice how to do this at least twice per year (See Control Guidance Sheet 404).
- Wear appropriate PPE when cleaning up spills.

Health surveillance—(See Control Guidance Sheet 402.)

Training

- Show your workers this sheet and make certain that they understand it.
- Instruct workers about the risks of using the product—see product labels or the Safety Data Sheet from your product supplier.
- Make certain everyone knows how to control and clean up spills promptly and safely.

Supervision

- OSHA 29 CFR 1910.133 (OSHA PPE Standard) requires that a workplace hazard assessment be performed, including personnel exposure monitoring, and that appropriate PPE be assigned on a task basis to protect workers from exposure to those hazards.
- Make certain that ventilation is working properly and that PPE is being used correctly.
- Ensure that the health surveillance system is being executed for those who need it.

Further information

Consult the supplier's (material) safety data sheet for further information or contact phone numbers for emergency information. Obtain additional information from the NIOSH toll-free number 1-800-CDC-INFO (1-800-232-4636) within the United States or 513-533-8328 outside the United States, or access the Web site at www.cdc.gov/niosh/cntc_m11.html.

To receive NIOSH documents or more information about occupational safety and health topics, contact NIOSH at:

Telephone: 1-800-CDC-INFO (1-800-232-4636)
TTY: 1-888-232-6348 * E-mail: cdcinfo@cdc.gov

or visit the NIOSH Web site at www.cdc.gov/niosh.

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