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Ask Your Questions

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Which PPE is common for both processes?



Answer

Based on the provided context, "gloves" and "footwear" are common protective equipment for multiple processes, specifically:

- **Dumping:** Overalls, face-shields, **gloves** and **footwear**
- **Spinning:** Suitable aprons, **gloves** and **Footwear**
- **Process involving or likely to involve contact with viscose solution:** Suitable **gloves** and **footwear**

Therefore, **gloves and footwear** are common PPE for these processes.

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*PROTECTIVE EQUIPMENTS FOR USE OF PERSONS EMPLOYED IN
THE PROCESSES PROCES S PROTECTIVE EQUIPMENT

1. Dumping Overalls, face-shields, gloves and footwear all made of suitable material.
2. Spinning Suitable aprons, gloves and Footwear.
3. Process involving or likely Suitable gloves and footwear. to involve contact with viscose solution
4. Handling of sulphur Suitable chemical goggles. (2) A suitable...

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1[to everyone separately] for use by workers employed in the said processes when there is danger of injury during the performance of normal duties or in the event of emergency: (i) Rubber Hand-gloves, (ii) Rubber aprons, and (iii) Airline respirators or other suitable respiratory protective equipment. (C) It shall be the responsibility of the manager to maintain all items of personal protective eq...

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once in a month. 11. Personal protective equipment.—(1)All workers exposed to the hazards in the processes covered by the SOP shall be provided with appropriate and approved type of personal protective equipment. Such equipment shall be in a clean, sterile

and hygienic condition before issue. (2) The occupier shall arrange to inform, educate and supervise all the workers in the use of personal pro...

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the contents. (7) Personal protective equipment.—(A) The following items of personal protective equipment shall be provided and issued to every worker employed in the said process: (a) long trousers and shirts or overalls with full sleeves and head coverings. The shirt or overall shall cover the neck completely. (b) rubber-gum-boots. (B) The following items of personal protective equipment shall b...

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20. Personal protective equipment. —(a) Suitable goggles and protective clothing of overalls without pockets, gloves and footwear shall be provided for the use of operatives: (i) when operating valves or cocks controlling fluids, etc. (ii) handling charcoal or sulphur. (b) suitable respiratory protective equipment shall be provided and stored in the appropriate place for use during abnormal con...

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equipment or appliance used in the processes and reports any malfunction or defect immediately to the supervisor or any responsible person of the management. (3) All workers shall co-operate in all respects with the management while carrying out any work or any

emergency duty assigned to them in pursuance of this SOP and shall always use all the personal protective equipment issued to them in a c...

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any one time, fitted with a waste-pipe and plug and having a constant supply of water laid on; (iii) a sufficient supply of clean towels made of suitable materials renewed daily, which supply in the case of pasters and persons employed in the manipulation of raw oxide of lead shall include a separate marked towels for each such worker; and (iv) a sufficient supply of soap or other suitable cleani...



Conversation History

Q1: Which PPE is common for both processes?

A1: Based on the provided context, "gloves" and "footwear" are common protective equipment for multiple processes, specifically:

- **Dumping:** Overalls, face-shields, **gloves** and **footwear**
- **Spinning:** Suitable aprons, **gloves** and **Footwear**
- **Process involving or likely to involve contact with viscose solution:** Suitable **gloves** and **footwear**

Therefore, **gloves and footwear** are common PPE for these processes.

Q2: Now compare them with the steps for handling flammable chemicals.

A2: Based on the provided context, here's a comparison of the steps for handling corrosive substances and flammable chemicals:

Handling Flammable Chemicals (Highly Flammable Liquids and Flammable Compressed Gases):

1. Storage:

- Stored in suitable fixed storage tanks or suitable closed vessels.
- Located in a safe position: under the ground, in the open, or in a store room of adequate fire-resistant construction.
- Vessels/tanks containing highly flammable liquids or flammable compressed gases should be closed except when necessary for use, operation, or maintenance.

2. Leakage Prevention:

- Provision for confining possible leakages from storage vessels using bund walls, dykes, sumps, etc.

3. Waste Disposal:

- Waste material in contact with flammable substances shall be disposed of suitably under the supervision of knowledgeable and responsible persons.

4. Fire Fighting:

- Adequate and suitable fire-fighting appliances shall be installed in the vicinity of storage vessels.

5. Ignition Prevention:

- All practicable measures shall be taken to exclude sources of ignition in areas where flammable substances are stored, conveyed, handled, or used, or where there's a risk of fire/explosion from accumulation in the air.
- Arrangements shall prevent the formation of flammable mixtures with air.
- Suitable ventilation facilities are required.
- "Antistat" footwear shall be supplied in mixing sheds where aluminium and magnesium powders (which can be flammable) are used, to combat static electricity.

Handling Corrosive Substances:

1. Storage:

- Corrosive substances shall **not** be stored in the same room with other chemicals such as turpentine, carbides, metallic powders, and combustible materials.

2. Repairs:

- Before repairs are undertaken to equipment that handled a corrosive substance, such equipment or part thereof shall be freed of any adhering corrosive substance by adopting suitable methods.

3. Damaged Containers/Spillage (General for Chemicals, applicable to corrosives):

- Damaged containers shall be handled only under supervision of a knowledgeable and responsible person.
- Spillage shall be rendered innocuous in a safe manner using appropriate means.

Comparison:

- **Storage Location/Type:** For **flammables**, there's specific guidance on the physical location (underground, open, fire-resistant room) and type of container (fixed tank, closed vessel). For **corrosives**, the primary storage instruction is to *segregate* them from specific other types of chemicals.
- **Leakage/Spillage:** **Flammables** have detailed requirements for preventing and containing large-scale leakages (bund walls, dykes). For **corrosives** (and chemicals generally), the focus is on handling damaged containers and rendering spillage innocuous.
- **Primary Hazard Focus:** For **flammables**, the strong emphasis is on preventing fire and explosion through ignition source exclusion, ventilation, leakage control, and fire-fighting readiness. For **corrosives**, the focus is on preventing contact, freeing equipment before repairs, and segregation from incompatible materials.
- **Waste Disposal:** Both mention supervision by knowledgeable persons for waste/damaged containers, but **flammables** specifically mention the suitable disposal of waste material in contact with them.
- **Ventilation/Air Mixtures:** **Flammables** explicitly require ventilation to prevent flammable mixtures with air. While general chemical handling (which would include corrosives) also mentions ventilation, the specific risk for flammables is highlighted.

- **Static Electricity:** Only mentioned for **flammables** (specifically, powders that can contribute to fire/explosion risk).

Q3: Tell me the safety steps for handling corrosive chemicals.

A3: Here are the safety steps for handling corrosive chemicals, based on the provided context:

1. Protective Equipment and Preparations:

- Suitable protective wear for hands and feet, suitable aprons, face shields, chemical safety goggles, and respirators must be provided and used by persons employed in any corrosive operation.
- The equipment must be maintained in good order, kept clean, and hygienic by treating to get rid of absorbed chemicals and by disinfecting.
- Suitable protective creams and other preparations should be provided and used wherever necessary.
- For specific processes:
 - **Dumping:** Overalls, face-shields, gloves, and footwear made of suitable material.
 - **Spinning:** Suitable aprons, gloves, and footwear.
 - **Process involving or likely to involve contact with viscose solution:** Suitable gloves and footwear.
 - **Handling of sulphur:** Suitable chemical goggles.

2. Handling Corrosive Substances:

- Corrosive substances shall not be handled by bare hands; a suitable scoop or other device must be used.
- Suitable tilting or lifting devices shall be used for emptying jars, carboys, and other containers of corrosives.
- A wheeled truck should be used for transporting corrosive substances, if the container is too heavy for a person to carry.
- Containers for corrosive substances shall be plainly labelled.
- Valves fitted to containers holding a corrosive substance shall be opened slowly to prevent splashing.

3. Water Facilities for Emergencies:

- Where any corrosive operation is carried on, a source of clean water must be provided as close to the operation place as possible.
- This water source should be at a height of 210 cms (7 feet) from a pipe of 1.25 cm (1/2) diameter and fitted with a quick-acting valve, so that in case of injury, the worker can immediately wash the affected part of the body.

4. Storage:

- Corrosive substances shall not be stored in the same room with other chemicals such as turpentine, carbides, metallic powders, and combustible materials.
- Containers for corrosive substances must be placed in secondary containers or on trays of suitable non-corrosive material to prevent overflow and injury.

- Every container (capacity of 20 Litres or more) and every pipe line, valves, and fitting used for storing or carrying corrosive substances shall be thoroughly examined every year for defects, and defects shall be removed forthwith. A register of these examinations must be maintained and produced to the Inspector when required.

5. Repairs:

- Before repairs are undertaken to any equipment in which a corrosive substance was handled, the equipment or part thereof shall be freed of any adhering corrosive substance by adopting suitable methods, whenever possible.
- All precautions required under Section 36 of the Factories Act, 1948, shall be taken to ensure the worker's safety during repairs.

6. General Worker Safety:

- Suitable rooms, rooms, or lockers shall be provided exclusively for the storage of protective equipment and personal clothing of persons employed in corrosive operations.
 - All protective equipment and preparations provided shall be used by the persons employed.
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