ROHINI COLLEGE OF ENGINEERING & TECHNOLOGY

2.6 SAFETY PRECAUTIONS AND FIRST AID

Chemicals (dyes, dyeing assistants, wetting and penetrating agents, after-treating agents, etc.) can cause severe burns and may irritate the eyes, respiratory system and skin. Some chemicals are poisonous when swallowed or absorbed through the skin or mouth.

Accidents can usually be prevented by maintaining a clean and tidy working area, wearing protective clothing (aprons or overalls, gloves, facemasks, goggles) and always taking safety precautions. Instructors should stress these points at every opportunity.

If chemicals must be used, the following precautions must be observed:

- 1. Avoid contact with the chemical. Always wear protective clothing.
- 2. Avoid breathing the dust or vapour. Always wear facemasks. Use narrow-mouthed beakers, jars or bottles whenever possible. Pour or spoon carefully.
- 3. Avoid using concentrated solutions whenever possible.
- 4. Avoid handling large containers of chemicals whenever possible. Transfer some of the chemical to a smaller container-accurate pouring or spooning is then much easier and safer.
- 5. Always wipe up spillages immediately and rinse the cloth thoroughly.
- 6. Always wash all utensils thoroughly after use.
- 7. Always wash hands thoroughly with soap and water after using any chemicals.

First aid treatment

Splashes of chemicals on the skin

- 1. Flood the splashed area with large quantities of running water and continue for at least 10 minutes.
- 2. Remove all contaminated clothing, taking care not to cause further contamination.
- 3. If the situation warrants it, arrange for transport to hospital or refer for medical advice to the nearest doctor. Provide information to accompany the casualty on the chemical responsible and brief details of the first aid treatment given.

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Splashes of chemicals in the eye

- 1. Flood the eye thoroughly with large quantities of gently running water either from a tap or from an eyewash bottle and continue for at least 10 minutes.
- 2. Ensure the water bathes the eyeball by gently prising open the eyelids and keeping them apart until the treatment is ended.
- 3. All eye injuries due to chemicals require medical advice. Arrange for transport to hospital. Provide information to accompany the casualty on the chemical responsible and brief details of the first aid treatment given.

Ingestion of poisonous chemicals

- 1. If the chemical has been confined to the mouth, give large quantities of water as a mouth wash. Ensure that the mouth wash is not swallowed.
- 2. If the chemical has been swallowed, give copious drinks of water or milk to dilute it in the stomach.
- 3. Do not induce vomiting.
- 4. Arrange for transport to hospital. Provide information to accompany the casualty on the chemical swallowed and brief details of the first aid treatment given and if possible an estimate of the quantity and concentration of the chemical consumed.

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