Safety Alert ----- Methanol Spill

Brief Description

On 21 November 2024 at approximately 10:30, the student was in the lab planning to configure 10L of 75% alcohol with 20L of anhydrous ethanol. While pouring from the 20L drum, the liquid was spilled onto the tops of her feet (wearing crocs and socks) and the floor, and her socks got wet. The student wore gloves, goggles, and a disposable medical mask to clean up the spill on the floor, without regard to the skin on her feet. However, when cleaning up the spill, she noticed that it was a bit sticky, and when they checked the label of the drum, she found that it was methanol. After cleaning up the floor, she rinsed the feet with water in the dormitory for 10 min, then she went to the clinic for counselling and rinsed the feet with water for 20min, and the doctor recommended continued observation and proper rest. The student reported the situation to her supervisor.

Causes of Accident

1. The large container of chemical was too heavy causing personnel to handle them unsteadily;
2. The student didn't wear closed toe shoes when operating in the laboratory;
3. The Student didn't read chemical label and label was not visible.

Accident-related photos

Learning Points

1. Purchase and use small containers of chemicals, use pipetting tools when dispensing chemicals, or purchase configured solutions whenever possible;
2. Students should wear closed toe shoes in the laboratory, and safety officers should reinforce laboratory dress codes training;
3. Chemical label should be clear and obvious, and any container of self-made chemical must be labeled indicating its chemical name, hazard, project team and preparation time, etc;
4. Students should maintain good condition, dangerous operation or operation of hazardous equipment requires at least 2 people;
5. The feet needs to be immediately rinsed with water for more than 15min when exposed to methanol/ethanol , the emergency order: 1) Protection of personal safety, 2) Protection of university public property, 3) Protection of personal projects
6. Prepare before cleaning up the spilled chemicals, choose proper PPE and tools, wearing double gloves, full-face respirator, and chemical resistant clothing/lab coat according to the situation;
7. Print the SDS of commonly used chemicals in the laboratory and put them in the safety file for reference in case of emergency.