



An Accident Involving Inhalation of Ammonia

The accident occurred when a teacher was conducting a S.1 practical lesson on “The Properties of Gases”. The teacher heated some ammonium carbonate solid in a test tube until ammonia gas was evolved. The test tube was then passed to the students for smelling the gas. Before the experiment, the teacher had already demonstrated to the students the correct way of detecting the odour of a gas and reminded the students not to inhale the gas directly. After the lesson, five students were feeling uncomfortable and were taken to hospital for medical treatment. Most of them had nausea and sore throat. Fortunately, they were found to have no significant injury.

This accident was due to the fact that some students were not following the instruction given by the teacher and inhaled too much ammonia gas. Besides, air-conditioners were switched on and all windows were not opened during the experiment. As a result, there was inadequate ventilation inside the laboratory. In order to avoid the occurrence of similar accidents in the future, science teachers should note the following:

1. Use the minimum amount of chemicals in doing experiments whenever possible.
2. Teacher should demonstrate the correct way of detecting the odour of a gas and students should be reminded not to inhale the gas directly. Do not allow asthmatics to smell irritating gases.
3. Appropriate safety measures should be taken to ensure that there is adequate ventilation in the rooms during practical activities. When Bunsen burners or chemicals are to be used, all air-conditioners should be switched off and exhaust fans switched on. The windows of these laboratories should be left open. Notices to this effect should be prominently displayed in the laboratories.

