## An Accident Involving Splash of Sodium Hydroxide onto the Eyes

EYE PROTECTION MUST BE WORN
必須戴上安全眼鏡

The accident occurred when a class of S.2 students was performing an experiment on neutralization using diluted solutions of NaOH and HCl. After completing all the practical work arranged by the teacher, a S.2 student injected some water from a syringe into a beaker containing some NaOH pellets. Unfortunately, some solution splashed from the beaker onto the face and eyes of another student. The teacher promptly helped the student to rinse his eyes with distilled water from an eye wash bottle and to wash his face with water. The student was then taken to hospital for medical treatment.


The accident was caused by mischievous behaviour of the student who played with chemicals and laboratory apparatus. Nevertheless, corrosive sodium hydroxide pellets should not be made accessible to students in this experiment. A diluted NaOH solution (<0.5M) should have been provided to students. The solution is much less hazardous but able to provide acceptable observations in such neutralization experiment. In addition, the students were also not asked to wear safety spectacles during the experiment. The safety spectacles available in the laboratory were old and scratched and they were stored inside boxes in drawers in the laboratory preparation room.

In order to avoid similar laboratory accidents happening in the future, science teachers are requested to take the following safety precautions:

1. Students should be told not to play in the laboratory.
2. When chemicals are to be used, students should wear safety spectacles until everyone has finished the practical work.
3. The access of hazardous chemicals for use by students in experiments should be carefully controlled. Chemicals and laboratory apparatus should be returned to the appropriate places immediately after use.
4. Safety spectacles should be stored in a place easily accessible to students. Old and scratched safety spectacles should be replaced without delay. Dirty safety spectacles should be cleaned with a detergent or disinfectant so that students would be more willing to wear them.