

Book Review 'Keselamatan Makmal' (Malay Version)

Kuala Lumpur: *Dewan Bahasa dan Pustaka*, 1994. 188 pp. ISBN: 983-62-4197-3

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Written by Halimatun Hamdan and Zaiton Abdul Majid, safety is the most important aspect of laboratory handling. Everyone involved in lab work must first place their own safety, workplace, environment and others working with them. This book contains reminders, guides, procedures and guides for handling labs and conducting experiments safely to avoid accidents. This book is suitable for all levels of society, especially students in high schools and universities. It is divided into 16 chapters arranged by titles and specific classes including security policy, lab planning and design, self-protection from various types of hazards in laboratories, basic and specialized techniques, materials disposal, first-aid storage. This book is also suitable for reference by all parties involved in laboratory handling.

Chapters 1 and 2 introduce about safety and its importance, policies and regulations that should be respected in general. Since students usually work in labs and may be given responsibility for planning labs when they work, Chapter 3 is written as a guide to all involved. This chapter provides an outline of laboratory planning in terms of position, size and basic laboratory content. The most important aspect of laboratory safety is self-protection. Chapter 4 focuses on the way and the need for an employee in a laboratory to keep himself from being injured in case of an accident. Devices and protective devices are described in this chapter. Chapter 5 provides guidance on how to handle other commonly used chemicals in the lab followed by general and specialized chemical classification in Chapters 6 and 7. The next aspect is the safety of laboratories that handle specialized materials such as radioactive and microbiological described in Chapters 8 and 9. The detailed explanation of the operating session, prevention and safety guidelines are provided in the chapter. A student or employee at the laboratory should also be skilled in basic laboratory techniques. Chapter 10 is reserved for that purpose. All basic technique handling procedures are provided with a diagram. For advanced researchers some specialized techniques require the emphasis of safety as given in Chapter 11. Various types of accidents can occur in labs in the form of fires arising from electrical, chemical and non-compliance operations. Chapters 12 and 13 provide safety guidance from that aspect. Safe laboratory handling should also address the proper disposal of wastes according to the type of waste. This guide is given in Chapter 14. In the event of an accident in the lab, each individual involved must know the steps to take to assist the victim and rescue them. First aid in the lab is given in Chapter 15. An important aspect of security is the storage and handling of laboratory materials and equipment. Chapter 16 provides general guidance on matters to be taken into account when storing laboratory materials and equipment. To make this book more interesting, the author has used pictures taken from the real situation. Finally included in the Appendix, a list of the specific chemicals currently used.

Research and teaching labs not only have high mechanical and electrical risks, but are also vulnerable to specific and complex hazards. These hazards include risks from toxic, combustible, rusted, pathogenic microorganisms, ionizing radiation sources, and low and high pressure pressures. Research labs typically use higher voltage than normal. Furthermore, tools used in the lab are sometimes used without any emergency tools such as shields or so. Things that get less attention like this sometimes cause problems that can cause long-term or short-term accidents and injuries that can cause death.