

BIOLOGY LABORATORY SAFETY RULES

IN CASE OF EMERGENCY CALL 110

IN CASE OF FIRE CALL 119

SECURITY DEPARTMENT (SD) 0577-55870110 MEDICAL DEPARTMENT (ED) 0577-55870120

(For non-emergency fire, medical, hazardous materials spill or security incidents)

SPILL RESPONSE

When a hazardous material spill occurs, or if it is unknown if the material is hazardous, go to a secure location and call:

Academic Affairs / Lab Center, 0577-55870094 8:30am to 4:30pm, Monday through Friday

Provide all information requested and follow the instructions provided by the dispatcher. If the hazards of the material are known and proper protective measures are followed, it is permissible to clean the spill in your work area. If you are unsure in any way **DO NOT** take any risks.

- Laboratory is not open to all. Non laboratory-related personnel are not allowed into laboratory randomly. Non-Wenzhou Kean University personnel visiting needs to be approved by Academic Affairs and Lab Center, and be accompanied by lab administrator from Lab Center.
- 2. Pants (or long skirts) and closed toed shoes are required for admittance to the lab. You will not be allowed into the lab if you show up dressed inappropriately! Shorts, skirts, and open toed shoes are not proper lab attire. High heels, sandals and flip-flops are not appropriate.
- 3. Long hair and loose clothing must be confined or tied back.
- 4. Safety goggles and lab coats must be worn at all times when working with chemicals, microbes and other experimental materials or when working near each others who are working with these materials.
- 5. Gloves are also recommended and may be required for some labs. Avoid spreading chemicals by removing gloves before leaving the work area.
- 6. Food, drink, gum and tobacco products are not allowed in the lab at any time.
- 7. Horse play, pranks, and other acts of mischief are strictly forbidden.
- 8. Casual visitors are not allowed in the labs. Only instructors, stockroom personnel, students in the schedule experimental activity and students with permission to conduct experiments are allowed in the labs.
- 9. Students are not allowed in the laboratory prep areas unless they are invited by and supervised by their instructor.
- 10. Know the locations of and the proper use of fire alarms, fire extinguishers, chemical fume hoods, safety showers and emergency eye wash stations. Know the location of the phone in order to call for help when necessary.

- 11. Notify your instructor immediately of any injury, spill, fire or explosion. All injuries and accidents, regardless of severity, must be reported. Clean up non-hazardous spills immediately. Never clean up a spill of hazardous material unless it can be done safely with assistance from your instructor. Assess the size of a fire and make an effort to contain the fire. Wet paper towels are very efficient for smothering small fires. Use the fire extinguisher for moderately sized fires. If there is a large fire, evacuate the laboratory, and close the entrance door to the laboratory and leave the building.
- 12. In the event of a true emergency, do not hesitate to dial 110 for emergency assistance.
- 13. Never taste any lab materials. Smell materials only if instructed to do so. Smell chemicals by carefully fanning the top of the tube or bottle so that a little of the vapor is directed towards your nose.
- 14. Keep your lab space clean and organized. Books, backpacks, jackets, etc. are not allowed in areas where chemicals are used. They clutter work spaces and significantly increase the chance of accidents and chemicals spills. Make sure they are placed in an appropriate location.
- 15. The laboratory shall not pull the wires. The wires, plugs and terminal blocks of the instruments and equipment must meet the requirements for electricity use. If there is any damage, immediately report to the logistics department for repair. When plugging high-power instruments and equipment, it is necessary to consider the load level of the power line. Overloading is prohibited, electricity usage safety must be ensured.
- 16. If you have assigned laboratory drawers, unlock them before you start lab and lock them when you finish lab.
- 17. Never leave an ongoing experiment unattended.
- 18. Never remove chemicals and lab animals from the lab.
- 19. Unauthorized experiments, work and preparations are not allowed! Know and follow the specified procedures for each experiment and follow the directions of your director.
- 20. Always know the hazards and the physical and chemical properties of the material used.

- 21. Dispose of broken glassware including ceramics and used disposable glass pipettes and capillary tubes in broken glass containers. Never put broken glass or broken ceramics in the trash. Do not put paper or other items in the broken glass containers.
- 22. Never pipette by mouth. Always use a suction bulb.
- 23. Do not use glassware with cracks or chips. Cracks and chips could cause the glassware to fail during use and cause serious injury. Ask your instructor for a replacement.
- 24. Read reagent bottle labels carefully. Use of the wrong reagent may result in unexpected and harmful reactions.
- 25. Never return unused chemicals to the reagent bottle. To avoid contamination, never put your pipette into the reagent bottle. Use the Pipette attached to the bottle. Try to dispense only what will be needed. Share any excess. Do not waste chemicals.
- 26. Dispose of all waste in an appropriate manner. Regard all waste disposals as a potential safety or environmental risk. Waste disposal via the sink, even for liquid solutions, is not always appropriate. Follow your instructor's directions. Read waste container labels carefully and put only the waste listed on the label in that container.
- 27. All glassware must be washed after use and returned to appropriate location. Follow your instructor's directions.
- 28. Wash your hands and arms with soap and water before you leave the lab- even if you have been wearing gloves. After your instructor's permission, you can leave the lab.

References: Safety in Academic Chemistry Laboratories (Published by American Chemical Society), Kean University Health and Safety Guide, Wenzhou-Kean University Biological Lab Student Safety Rules, University of Oregon Hazardous Materials Guide.

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温州肯恩大学生物实验室安全条例

紧急情况报警电话 110

紧急火情报警电话 119

保卫处 24 小时电话 0577-55870110 医务室 24 小时电话 0577-55870120

(适用于非紧急火情和普通医疗救助,以及非危险品泄漏或其他非紧急安全事件)

危险品泄漏处置

当发生危险品泄漏时,或不明物发生泄漏时,请立即撤离至安全地带,并拨打以下电话:

教学部 / 实验科研中心, 0577-55870094 周一至周五,上午 8:30 至下午 4:30 提供所有必要的信息,同时服从调度员的指示。若已知泄漏物的危险成分,同时在 具备必要保护措施的情况下,准许自行清理处置泄漏物。若无法确定泄漏物成分, **禁止**擅自采取任何处置措施,并及时报警,等待专业人员进行处置。

- 1. 实验室不对外开放,非实验科研中心有关人员不得随意进入实验室。校外人员 到实验室进行实验、实习或是参观,需经教学部同意,经实验室负责人登记使 用缘由,并妥善安排使用方案后,由实验科研中心安排专人陪同方可进行。
- 2. 进入实验室前要求身穿长裤或长裙和未裸露脚趾的鞋。如果未按以上要求着装,将不得进入实验室进行实验。短裤、短裙和裸露脚趾的鞋都是不符合实验室要求的着装。身穿高跟鞋、凉鞋和人字拖鞋也都是不符合实验室着装要求。
- 3. 进入实验室前,长发和过于宽松的服饰都必须扎紧,防止沾染实验材料。
- 4. 当实验涉及使用化学品、微生物和其他实验材料或身旁有人正在使用接触这些 试验材料时,都必须戴上护目镜、手套和穿上实验服直至实验结束离开实验 室。
- 5. 建议戴上手套进行所有实验操作,对于进行某些特定实验前,必须戴上手套。 同时,在离开工作区域前,注意防止当脱去手套时洒出手套上残余的化学品
- 6. 在任何时间都不允许将任何食物、饮品、口香糖和烟草产品带入实验室。
- 7. 在实验室里禁止出现任何嬉戏、打闹和恶作剧的行为。
- 8. 未经指导老师许可的参观者不得进入实验室。只有指导老师,科研实验室中心 负责人员,获准参与社团实验活动的学生和获得指导老师准许进行相关实验的 学生可以进入实验室进行实验操作。
- 9. 未经指导老师许可禁止进入实验材料准备区域;已获得指导老师许可的学生, 需在指导老师的带领下进去实验材料准备区域。
- 10. 明确知道安全设备所处位置并娴熟掌握其使用方法:火灾报警器、消防灭火器、通风安全柜、紧急冲淋器和紧急洗眼器。明确知道紧急报警电话所处位置。
- 11. 当发现实验室出现任何人员受伤、试剂打翻、起火或者爆炸情况,必须立即告知指导老师。不管严重程度大小,所有受伤和意外情况,都必须向指导老师报告。如果打翻未包含对人体有害成分的试剂时,需立即清理干净。如果打翻包含对人体有害成分的试剂时,除非能在指导老师的协作下安全地清理,否则禁止擅自清理含有有害成分的试剂。根据火势大小情况,采取合理有效的措施控制火情。湿纸或湿布可以有效扑灭火势较小的火情。如遭遇中等火情,需使用

消防灭火器进行灭火。如果发生火势较大的火情,必须立即疏散实验室内人员,关闭实验室入口,并迅速撤离实验室所在大楼。

- 12. 如果发生重大紧急情况,必须立即拨打 110 报警电话寻求援助。
- 13. 禁止品尝任何实验材料。未经指导老师指示,禁止擅自嗅闻实验材料。当需要 嗅闻化学品时,用手在瓶口小心煽动,并嗅闻少量气体。
- 14. 保持实验操作台的整洁有序。 书本、背包、外套等禁止放在放有化学品的实验 区域。 实验操作台若放置过多非实验用品时,容易增加发生意外情况和试剂打 翻的情况,所以在进行实验操作前,务必确保所有实验和非实验用品已经放置 妥当。
- 15. 实验室不得乱拉电线,仪器设备的电线、插头和接线板必须符合用电要求,若有损坏,立即向后勤部报修。在添置大型仪器设备时,要考虑电源线路负载程度,禁止超负荷用电,确保安全用电。
- 16. 如有分配到各自用于存放实验器具的实验抽屉柜时,在开始实验时,需用各自 钥匙打开抽屉,在实验结束后,务必确认抽屉已上锁后再离开实验室。
- 17. 禁止将正在反应的实验处于无任何人员看护的情况下。
- 18. 禁止将实验化学品、实验动物带出实验室。
- 19. 禁止进行任何未经指导老师许可的实验活动、实验操作和实验材料准备工作。 对于每一次实验活动,都要清楚知道和遵行其特定的实验步骤,同时遵照实验 指导者的指导。
- 20. 始终要清楚明白所用实验材料的毒理性和物理、化学性质。
- 21. 任何破损玻璃器具包括陶瓷材质和一次性玻璃移液管、毛细玻璃管都必须丢弃 到破损玻璃器具收纳箱。禁止将破碎的玻璃器具和陶瓷器具丢入垃圾桶中。也 不要将纸屑或其他非玻璃、非陶瓷材质的器具丢入破损玻璃器具收纳箱。
- 22. 使用玻璃移液管时,禁止使用人嘴进行移液操作,需使用移液球。
- 23. 不要使用带有裂痕和缺口的玻璃器具。带有裂痕和缺口的玻璃器具,在使用过程中,容易造成安全事故。如有发现此类器具,询问指导老师更换全新器具。
- 24. 使用化学试剂之前,务必仔细阅读试剂瓶上所贴标签。错误使用试剂将可能导致不可预期的和产生有害物质的反应。

- 25. 禁止将剩余未使用的化学品倒回到原试剂瓶中。为了防止污染原试剂,禁止直接将移液管插入试剂瓶中进行移液操作。如使用试剂滴瓶时,需用滴瓶上的滴管移取试剂。尽量移取足够实验所需的用量。如果移取过多,就与他人分享使用。不要浪费化学品。
- 26. 由于处理实验废物涉及到潜在的安全隐患或环境危害,因此所有实验废物必须按照规定妥善处理。禁止将实验室废物倒入水槽,即使是液体溶液,也禁止倒入水槽。必须遵循指导老师的指示对废物进行分类处理。务必仔细阅读废物桶上标签,根据标签指示,将实验废物倒入相应的废物桶中。
- 27. 实验结束后,必须将所有玻璃器具清洗干净,并将其摆放回合适的位置,同时遵循指导老师的指示进行整理。
- 28. 离开实验室前,即使实验过程中一直佩戴手套,也必须清洗手和手臂,以防止出现化学品污染事故。在征得指导老师同意后,方可离开实验室。

参考文献:大学化学实验室安全(美国化学协会编制),美国肯恩大学卫生与安全指南,温州肯恩大学生物实验室学生安全守则,美国俄勒冈大学危险品指南。

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