

The book was found

Chem Lab Basics (Quickstudy: Academic)

Copyrighted Material

CHEMLAB BASICS

CHEMISTRY SAFETY AND LAB GUIDE

SAFETY TRAINING

- Safety is an integral part of working in the chemistry laboratory. A responsibility shared by students and instructors.
- Learning about safety is part of your education; skills you gain in the lab will serve you in future careers and in life...if nothing else they will make you a better cook!

Be Prepared - Where is the _____

- **Lab exit** - Know how to get out fast in an emergency
- **Nearest phone** - Dial 911 or local emergency number
- **Fume hood** - Use for any noxious reagent
- **Eyewash station and safety shower** - For washing skin or eyes exposed to chemicals
- **Fire extinguisher** - Use to douse small fires

Personal Responsibility:

- **Rule 1:** Protect yourself! Your mistakes will likely harm you more than anyone else.
- **Rule 2:** Read the lab manual before class. Come to lab prepared to work on the assigned experiment.
- **Rule 3:** Always pay attention as you work. Watch other students; you are impacted by their mistakes.
- **Rule 4:** Clean up your own mess. You are a partner in maintaining a safe lab.

- Keep your work space clean and organized.
- Wash labware with detergent; rinse with de-ionized or distilled water; use a **wash bottle** to conserve water; drain excess liquid; allow object to dry before storing.
- **Sharp equipment:** wash before each use.
- After each lab session, return reagents and equipment to the designated storage areas.

GENERAL LAB GUIDELINES

- Always work with instructor supervision.
- Always wear **goggles** in the lab; vision must be unobscured; replace contact lenses with eyeglasses.
- Wear an **apron, lab-coat and gloves** to limit your chemical exposure and to save clothing from chemical stains.
- **Wear elbow-length gloves** to protect your feet.
- Tie back hair and avoid bulky sleeves which interfere with work.
- Food and drink should not be in the lab.
- Wash your hands after each session, before leaving the lab.

EXPOSURE TO CHEMICALS


While working in the lab you will use a number of reagents, giving ample chance for exposure to the harmful effects of chemicals.

Possible risks:

- Inhaling chemical powder or vapor
- Ingesting solid or liquid chemicals by mouth
- Puncturing skin with a sharp object and injecting chemicals into your body
- Absorbing chemicals through your skin

KNOW YOUR LAB REAGENTS

Some chemicals are toxic; all can cause harm if used incorrectly. Learn about reagents before using them in an experiment. Read your lab manual and handbook; talk to your instructor; if in doubt, ask questions!



Material Safety Data Sheet (MSDS) gives a description of the hazard a substance may pose.

Chemical Storage Codes
Chemicals in the same color group are usually to be stored together, exceptions noted on the label

- **Health Hazard**
- **Reactive and Oxidizing**
- **Flammable**
- **Corrosive**
- **Minimal Hazard**

CHEMICAL SPILLS

On the floor or benchtop:

- For **small spill:** wear gloves, neutralize acid/base, absorb using paper towels and discard in a labeled bag.
- **Larger spill:** Notify the instructor, wear gloves and shoe protectors, use a spill kit designed for the chemical.
- Clean up all spills promptly to prevent further accidents.

On your clothing or skin:

- Remove affected article of clothing; wash exposed skin with water and apply first aid.
- Treat promptly to minimize harm.
- If a spill occurs on your face, use safety shower; flush apply first aid.

WASTE MANAGEMENT

- Follow the instructor's directions for disposal of all lab materials. Most chemicals should not be poured down the drain.
- All toxic metals and halogenated solvents must be collected for proper disposal.

Waste Precautions: Use only the required amount of reagent; excess material cannot be returned to original jar; it is "waste". A **spare plate** is an excellent means to conserve reagents.

WORKING WITH CHEMICALS

Heating labware:

- Use tongs to handle labware while it is heated by a burner or lamp.
- Allow the items to cool to room temperature before weighing.

For liquid reagent:

- Cover the beaker with a watch glass
- Use "boiling stones" to promote smooth boiling
- Flammable solvent: take care when heating with hot plate; avoid use of gas burner
- Handle test tube with wire-holder


For solid reagent:


- Use a weighing dish on the balance
- Cover the dish to prevent loss, spills or contamination

FIRST AID

Check with instructor for local guidelines.

- **Burns from hot labware:** Minor: apply cold water. Serious: contact medical help.
- **Cut from broken glassware:** Minor: Wash with soap, apply antiseptic and sterile bandage. Serious: Control bleeding by applying pressure with sterile pad; contact emergency medical help.
- **Skin exposure to a chemical:** Rinse with water; if condition develops, contact medical personnel.
- **Feel lightheaded (or passing out):** Move affected person to fresh air outside of the lab; contact medical personnel if the condition persists.
- **Burning clothing:** Do not panic; drop to the floor and smother the flames; use safety shower to treat burn; contact emergency medical personnel.



PDF  **DOWNLOAD EBOOK**

Synopsis

This 2-page study guide contains basic chemistry analysis and concepts designed specifically to aid science students.

Book Information

Series: Quickstudy: Academic

Pamphlet: 4 pages

Publisher: QuickStudy; Lam Crds edition (May 19, 2008)

Language: English

ISBN-10: 1423204182

ISBN-13: 978-1423204183

Product Dimensions: 8.5 x 11 x 0.1 inches

Shipping Weight: 0.8 ounces (View shipping rates and policies)

Average Customer Review: 4.3 out of 5 stars 21 customer reviews

Best Sellers Rank: #32,849 in Books (See Top 100 in Books) #4 in [Books > Science & Math > Chemistry > Industrial & Technical](#) #5 in [Books > Science & Math > Chemistry > Clinical](#) #8 in [Books > Science & Math > Chemistry > Analytic](#)

Customer Reviews

BarCharts - Chem Lab Basics (Quick Study: Academic) Includes this information: Lab Safety Training General Lab Guidelines Working with Chemicals Exposure to Chemicals First Aid Reagents Chemical Spills Waste Management Solubility Polar/Nonpolar Solvents Inorganic Salts Acids / Bases / pH Physical Constants Ions Periodic Table (As of 2008) Lab Equipment Use Units and Conversions Preparing a Solution How to Use... All of this information also included in CHEMISTRY Spiral Bound Easel (ISBN-13: 978-1423225751)

I've purchased several of the Bar Charts items to help out with Chemistry before I bought this, and honestly I hadn't used many of the information contained in those besides the atomic weights on the Periodic Table. The laminated sheets are rather eye-catching, but wasn't until last week that someone noticed my "Advanced Periodic Table" in my notebook. With that envy in mind, I sought this helpful guide to add to my growing Bar Charts library. The information in this particular "Chem Lab Basics" won't get you an A, but it should jog your memory in advance of an exam, or remind you of various hazards you didn't hear your professor mention. Plus it has 3-hole punching and is laminated!

very helpful!

no comment

You got to have it if you are a science lover!

good for what it is, laminated so it doesn't get destroyed

Not that useful for college chem. Was recommended but not needed at any moment. Could be useful for high school stuff? I'm not sure.

Easy to understand, reason consulta of chemlab basics applications. Good for you refresh knowledge practical, manageable and economic. Must sell by related topics and the right price rather than individual

[Download to continue reading...](#)

Chem Lab Basics (Quickstudy: Academic) Lab Values: 82 Must Know Lab Values for Nurses: Easily Pass the NCLEX with Practice Questions & Rationales Included for NCLEX Lab Values Test Success (Lab Values for Nurses, NCLEX Lab Values) Bio Lab Basics (Quickstudy: Academic) The Organic Chem Lab Survival Manual: A Student's Guide to Techniques The Organic Chem Lab Survival Manual: A Student's Guide to Techniques by James W. Zubrick (Dec 18 2009) The Organic Chem Lab Survival Manual: A Student Guide to Techniques The Organic Chem Lab Survival Manual, A Student's Guide to Techniques 7th (seventh) Edition by Zubrick, James W. published by Wiley (2007) The Organic Chem Lab Survival Manual: A Student's Guide to Techniques 9th (ninth) Edition by Zubrick, James W. published by John Wiley & Sons (2013) The Organic Chem Lab Survival Manual: A Student's Guide to Techniques -- Sixth 6th Edition Medical Terminology: The Basics (Quickstudy: Academic) Explosive Reactions Lab Kit (Mad Science Explosive Reactions Lab Kit) Animation Lab for Kids: Fun Projects for Visual Storytelling and Making Art Move - From cartooning and flip books to claymation and stop-motion movie making (Lab Series) Drawing Comics Lab: 52 Exercises on Characters, Panels, Storytelling, Publishing & Professional Practices (Lab Series) Map Art Lab: 52 Exciting Art Explorations in Mapmaking, Imagination, and Travel (Lab Series) Italian Language Lab [With Italian Language Lab Book] (Look Listen and Learn!) Art Lab for Kids: 52 Creative Adventures in Drawing, Painting, Printmaking,

Paper, and Mixed Media-For Budding Artists of All Ages (Lab Series) Drawing Lab for Mixed-Media Artists: 52 Creative Exercises to Make Drawing Fun (Lab Series) Art Lab for Little Kids: 52 Playful Projects for Preschoolers (Lab Series) Clay Lab for Kids: 52 Projects to Make, Model, and Mold with Air-Dry, Polymer, and Homemade Clay (Lab Series) Clay Lab for Kids (Lab Series)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)