

Fire Science Laboratory

References Available

Safety and technical references available in the Fire Science Laboratory, including books, papers and notes are listed below for convenience.

Safety Related Books

1. Hazardous Chemicals Desk Reference
2. Safety in Academic Chemistry Laboratories
3. Prudent Practices in the Laboratory
4. Laboratory Safety Pocket Handbook
 - page 67, Standard Methods of Prevention
 - page 94, Hazards of Compressed Gas
 - page 125, Electrical Safety
 - page 137, Emergencies
 - page 171, Selection Criteria for Protection Devices
 - page 177, How to Read and Understand a MSDS
5. Safety in the Academic Chemistry Laboratory
6. Hazardous Chemicals Desk Reference
7. Matheson General Regulator Instruction Handbook
8. Matheson Guide to Safe Handling of Compressed Gas
9. Gas Data Book
10. Guidelines for Incorporating Safety and Health into Engineering Curricula
11. The Pocket Reference
 - page 7, Air and Gases
 - page 33, Carpentry
 - page 109, Electrical
 - page 257, Glues, Solvents, Paints and Finishes
 - page 271, Hardware
 - page 339, Plumbing and Pipe
 - page 355, Steel and Metals
 - page 385, Tools
12. [Cone SOP](#)
13. [LIFT SOP](#)
14. [LODS SOP](#)
15. [Smoke Chamber SOP](#)
16. [Natural Gas Line SOP](#)

Safety Related Notes

1. Introduction to Personal Protective Equipment
2. Choosing Protective Eyewear
3. Choosing Protective Hearing Protection
4. Choosing Respiratory Protection
5. Choosing Chemical Protective Gloves
6. Chemical Compatibility for Gloves
7. Selecting Chemical Protective Clothing for Vapor and Splash Protection
8. Choosing Work Shoes

9. Safety Acronyms
10. WPI Golden Rules of Lab Safety
11. WPI Hazardous Waste Pickup Procedures
12. WPI Chemical Hygiene Plan

13. The Laboratory Standard, 29 CFR 1910.1450
14. Flammable and Combustible Liquids, 29 CFR 1910.106
15. The ANSI Standardized MSDS

16. Protecting Against Chemical Hazards, Your Checklist for Safe Use of Chemicals
17. Standard Terminology Relating to Hazardous Potential of Chemicals
18. Bonding and Grounding for Chemical Transfer
19. Chemical Warning Labels
20. Spill Control, Assessing Your Needs and Choosing the Right Sorbants
21. Corrosion and Chemical Resistance Table, A guide to Common Materials
22. Safety Can/Solvent Compatibility Table

23. Matheson Manual for Flash Arrestors
24. Compressed Gas Glossary
25. Gas Cylinder Storage and Handling
26. Regulator Material and Gas Compatibility
27. CGA Connection Fittings (for compressed gas)
28. Types of Regulators

29. Laser Safety Basics

30. Proper Lifting Techniques
31. Hazard Tape Color Coding
32. ANSI Hazardous Material Pipe Marking Standard

33. National Pipe Thread (NPT) Minimum Required Thread Engagement

Technical Books and Handbooks

1. Temperature Measurement in Engineering, Volume 1
2. Temperature Measurement in Engineering, Volume 2
3. Flow Measurement
4. Fundamentals of Temperature, Pressure and Flow Measurement
5. Handbook of Transducers
6. Measure for Measure

7. NFPA Handbook
8. SFPE Handbook
9. Materials Handbook
10. Sprinkler Handbook
11. Marks Standard Handbook for Mechanical Engineers
12. Handbook of Math and Physics

13. 1998 National Fire Codes
14. 1997 FM Approval Guide (Fire Protection, Electrical Equipment and Building Materials)
15. 1998 Annual Book of ASTM Standards (Construction)

16. America Burning (The National Commission on Fire Prevention and Control) 1973
17. America Burning Revisited, 1987
18. Uses of NFIRS
19. NFIRS Analysis, Investigating Residential Fire Rates

Technical Notes

1. Introduction to Thermocouples
2. Practical Guidelines for Temperature Measurement
3. Thermocouple Measurements in the Presence of High Common Mode Voltages
4. Measuring Temperature With Thermocouples, A Tutorial
5. Measuring Temperature with Thermistors
6. Infrared Temperature Measurement Theory
7. Non Contact Temperature Measurement, Omega Transactions Publication

8. Data Acquisition Tutorial
9. Signal Conditioning Tutorial
10. Field Wiring and Noise Considerations for Analog Signals
11. Signal Conditioning Fundamentals for PC Based Data Acquisition Systems

12. Pressure Gage Accuracy
13. Solenoid Valves
14. Air Operated Valves
15. Technical Principles of Valves
16. Strain Gage Measurement, A Tutorial

17. Liquid Flowmeters
18. Properties of Thermoplastic Materials
19. Methods for Purging Regulators
20. O Ring Information
21. Flow and Pressure Engineering Applications Guidebook
22. Casting Guide
23. Straight Thread Dimensions
24. Water Hammer
25. Fiber optics

Website Links

1. OSHA webpage, www.osha.com
2. Vermont SRI MSDS online webpage, www.hazard.com/msds
3. NIOSH webpage, www.cdc.gov/niosh/homepage.html
4. WPI Environmental and Occupational Safety Office, www.wpi.edu/Admin/Safety
5. WPI Chemical Hygiene Plan, www.wpi.edu/Admin/Depts/Safety/Laboratory/hygiene.html
6. WPI Haz Waste Policy, www.wpi.edu/Admin/Depts/Safety/Laboratory/hazardous.html
7. WPI Golden Rules, www.wpi.edu/Admin/Depts/Safety/Laboratory/saferules.html
8. Federal Register 29 CFR Part 1910, www.counterpoint.com
9. NFPA Chemical Hazard Labels, www.orcbs.msu.edu/chemical/nfpa/nfpa.html
10. Lab Safety Supply webpage, www.labsafety.com
11. ANSI, www.ansi.org
12. Factory Mutual, www.factorymutual.com
13. National Instruments, www.natinstr.com
14. National Institute of Standards and Technology, www.nist.gov
15. National Fire Protection Association, www.nfpa.org
16. Omega, www.omega.com
17. Society of Fire Protection Engineers, www.sfpa.org
18. Thomas register of Companies, www.thomasregister.com