

**Table 2.**  
**LEGAL AND PROFESSIONAL REQUIREMENTS FOR LABORATORY ASSESSMENT ITEMS**

LAWS, CODES, REGULATIONS & STANDARDS	ITEMS ASSESSED	LAWS, CODES, REGULATIONS & STANDARDS	ITEMS ASSESSED
1910.1200	<b>CHEMICAL INVENTORY</b>	Professional	Date received noted on container when opened
1910.1200	Current (up to date)	1910.106(d)(3)	Flammables cabinet
Professional	Computerized	EPA	Corrosives cabinet
40 CFR (EPA)	Any hazards on list	EPA	Acid cabinet
29 CFR 1910.1450	Absolute need determined for each chemical	Professional	Separate storage for nitric acid
40 CFR (EPA)	Need to purge	Flinn Scientific	Chemical storage shelves with lips
40 CFR (EPA)	Purge process in place	1910.22	Cleanliness / order of storeroom
40 CFR (EPA)	Disposals marked	1910.1450	Centralized chemical storeroom
40 CFR (EPA)	Inventory for bids	<b>1910.1200</b>	<b>MSDS</b>
1910.1450, App. A.	Process to order	1910.1200	1:1 for current inventory
1910.1450	Process to check in	1910.1200	MSDSs for household chemicals
1910.1450	Process to check out	1910.1200	Accessible in laboratory
1910.1450	Process to reshel	1910.1200	Responsibility
1910.1450	Responsibility	Professional	Used for instruction
1910.1450	Containment materials for spills	Professional	Used by teachers
1910.155	Bucket of sand for metals	<b>ANSI Z358.1</b>	<b>EYEWASH 29 CFR 1910. 133. 151(c)</b>
Fire Marshal NFPA 704	NFPA signs on chemical storeroom door	1910.151(c)	Portable bottle station (REMOVE)
Fire Department	Copy of chemical inventory to local Fire Department	ANSI Z358.1	Built in station 29 CFR 1910. 1450(d)(e)
Principal	Copy of chemical inventory for administrators office	ANSI Z358.1	Drench combo unit
School District	Copy of chemical inventory to school district office	ANSI Z358.1	Installed on faucet type
NFPA, ICC, ACS,	Chemicals stored by Flinn System	ANSI Z358.1	Signage, 1910.145(d)(6)
NSTA	Chemicals stored by Fisher System, Carolina Biological / Baker	ANSI Z358.1	Number of stations
Professional	Date received noted on container	ANSI Z358.1	Area clear
		ANSI Z358.1	10 Second Rule
		ANSI Z358.1	Aerated water
		ANSI Z358.1	Filters clean
<b>Key:</b> 1910 = CFR 40 CFR = EPA 115C (listed here as NC GS) — Substitute your state statutes		This form is used as an integral part of the C <sup>2</sup> S <sup>2</sup> LP (Customized Comprehensive Science Safety Laboratory Program) developed by Linda M. Stroud, Ph.D., Science & Safety Consulting Services, Inc.	

LAWS, CODES, REGULATIONS & STANDARDS	ITEMS ASSESSED	LAWS, CODES, REGULATIONS & STANDARDS	ITEMS ASSESSED
ANSI Z358.1	Hands free operation	NFPA/State/Local	Appropriately stored
ANSI Z358.1	Pressure of water	1910.159	<b>Sprinkler System</b>
ANSI Z358.1	Temperature of water	ANSI / UL 263	<b>Wool Fire Blanket</b>
ANSI Z358.1	Clean water	ANSI / UL 263	Appropriate location-Exit door
ANSI Z358.1	Flush weekly / Document	ANSI / UL 263	Location labeled
ANSI Z358.1	<b>SHOWER</b>	ANSI / UL 263	Height from floor correct
ANSI Z358.1	Location labeled, 1910.145(d)(6)	1910.157	<b>Fire Extinguisher</b>
ANSI Z358.1	Area clear	1910.157(a)(2)	Appropriate location-Exit door
ANSI Z358.1	Flushed weekly / Document	1910.157(a)(2)	Location labeled
1910.151(b)	<b>FIRST AID KIT (STATE / LOCAL)</b>	1910.157(a)(6)	Height from floor correct-6" to 5'
ANSI Z308.1-2003	Bandages, band aids	1910.157	Tri-class type (ABC)
ANSI Z308.1-2003	Ointments, creams, iodine	1910.157(d)(3)(iv)	Inspection up-to-date
1910.141	<b>WATER</b>	Professional	<b>GAS</b>
1910.1450	Water & sewer available in lab	Professional	Shut off labeled
Professional	Hot water available in lab	Professional	Master shut off operable
Professional	Master cut-off	Professional	Master shut off accessible
NFPA/State/Local	<b>FIRE (OSHA)</b>	Professional	Gas jet safety caps
Professional	<b>Alcohol burners (not permitted)</b>	1910.132	<b>CHEMICAL RESISTANT APRONS</b>
ASTM C1043-06	<b>Hot plates</b>	ANSI / ISEA	<b>GLOVES 1910.138</b>
Professional	Smooth top-recommended	105-2005	Latex for students
Professional	Coiled-phase out	Professional	Non latex for students (Nitrile)
ANSI Z21.24	<b>Bunsen burners</b>	Professional	Neoprene for teacher to mix solution
AGA Standard	Appropriate tubing-not rubber	Professional	Heat resistant gloves-teacher
Professional	<b>Portable gas burners</b>	Professional	Heat resistant gloves-student
Professional	Microburners - butane	1910.133	<b>FACE SHIELD-teacher</b>
Professional	Propane torch burner	1910.133(a)(6)	<b>GOGGLES ANSI Z87.1-2003</b>
		1910.133(a)(2)(i)	Appropriate type for needed use
		1910.133 Preamble Final Rule	Non-vented for contact lens wearers

**Key:**

1910 = CFR

40 CFR = EPA

115C (listed here as NC GS) —

Substitute your state statutes

**Table 2.****LEGAL AND PROFESSIONAL REQUIREMENTS FOR LABORATORY ASSESSMENT ITEMS (CONT'D)**

<b>LAWS, CODES, REGULATIONS &amp; STANDARDS</b>	<b>ITEMS ASSESSED</b>	<b>LAWS, CODES, REGULATIONS &amp; STANDARDS</b>	<b>ITEMS ASSESSED</b>
ANSI Z87.1	Indirect vented for everyone	Professional	Food in refrigerator
1910.133(a)(vii)	UV Cabinet	Professional	Chemicals / Specimens in refrigerator
1910.133(a)(vii)	Alcohol to clean goggles	1910.145	Signage
State Laws	Visitor goggles	Professional	FOOD ONLY
Professional	Signage	Professional	Chemicals / Specimens ONLY
ANSI Z87.1	Impact resistant glasses/goggles		<b>WORK SURFACES</b>
ANSI Z87.1	Vented chemical splash goggles	Professional	Non-porous, chemical resistant
Professional	<b>DISHWASHER</b>	Professional	Adequate for project work
Professional	<b>LAB CART</b>	Professional	Flat desks or science tables
Professional	Standard metal	Professional	Need science tables
Professional	Non corrosive plastic with sides	Professional	Lab stools used during lab
1910.25-.27	<b>LADDER/STEP STOOL (LOCKS)</b>	1910.303-309	<b>ELECTRICAL (State / Local / ICC)</b>
Professional	<b>MICROWAVE</b>	1910.303	Emergency Electrical Shut Off
Professional	Warning sign on room door	1910.303	Location labeled
Professional Std.	<b>GLASSWARE</b>	1910.304	Proximity to water
Professional	All Pyrex® type	1910.304	Extension cords needed
Professional	No chipped or broken	1910.304	Sufficient outlets
Professional	Broken glass disposal	1910.304	Grounded outlets
1910.1030	<b>SHARPS CONTAINER</b>	1910.304	Appliances have 3-prong plugs
Professional	<b>THERMOMETERS</b>	1910.304	GFI or GFCI protected outlets
Professional	Alcohol type (red, green or blue)	1910.304	Wired for computers
GS State Laws	Mercury (silver color) <b>(REMOVE)</b>	1910.304	Wired for multimedia
State Laws	<b>MERCURY BAROMETERS</b>	Professional	TV strapped down
IHS	<b>REFRIGERATORS</b>	Professional	TV mounted
Engineering	Lab type	1910.1450, App. A. NFPA 45	<b>FUME HOODS</b>
Standards	Standard type		

**Key:**  
1910 = CFR  
40 CFR = EPA  
115C (listed here as NC GS) —  
Substitute your state statutes

LAWS, CODES, REGULATIONS & STANDARDS	ITEMS ASSESSED	LAWS, CODES, REGULATIONS & STANDARDS	ITEMS ASSESSED
ASHRAE 110	Built-in units	Professional	Science department on separate HVAC
ASHRAE 110	Portable unit	Professional	Lab ventilation teacher controlled
Professional	Clean and clear	1910.107(d) NFPA 91-1961	Exhaust to exterior for chemical storeroom
ANSI Z9.15-2003	Tested	Professional	Clock controlled exhaust in chemical storage
ASHRAE 110	Vented separately	State Education Laws	<b>EQUIPMENT NEEDED FOR SAFETY</b>
ASHRAE 110	Draw	State Education Laws	<b>EQUIPMENT NEEDED TO TEACH THE NC STANDARD COURSE OF STUDY</b>
1910.1450, App. A.	Vented to exterior of building	1910.38	<b>EVACUATION ROUTES POSTED</b>
ASHRAE 110	Ductless with appropriate filters	NFPA 101-2000	Fire 29 CFR 1910.34-.35
	<b>SECURITY</b>	1910.38	Tornado
1910.176	Chemical storage keyed separately	1910.39(b)	Fire Prevention Plan
Professional	All storage cabinet lockable	OSHA	<b>WRITTEN PROGRAMS</b>
Professional	Master key exists for storage	1910.1450(e)	Chemical Hygiene Plan
Professional	Secure storage for knives / dissection / cutting instruments	1910.1450(b)	<b>Qualified CHO (education / training)</b>
Professional	Non-science teacher access to storage	1910.1450(f)	Training and date
Professional	Room used by non-science teacher	Professional	Source of training
Professional	Science teacher in a non science room	1910.1200(h)	<b>Hazard Communication Plan</b>
Professional	Administrator access to chemical storeroom	1910.1450(h)(1)	Training and date
Professional	Custodian access to chemical storeroom	Professional	Source of training
Professional	Labs locked when teacher not present	1910.1030(g)(2)	<b>Bloodborne Pathogens</b>
1910.36, .37	<b>ACCESS</b>	1910.1030(g)(2)(i)	Training and date
1910.36(b)	Lab less than 1000 ft <sup>2</sup> 1 exit	Professional	Source of training
NFPA 101-2000	Lab over 1000 ft <sup>2</sup> NFPA Code 101	1910.38(b)	<b>Emergency Action Plan</b>
1910.36(b)(8)	Lab has two exits	1910.38(e)	Training and date
1910.37(b)(7)	Exits are labeled	Professional	Source of training
1910.37(b)(5)	Non-exits labeled	1910.101	<b>COMPRESSED GAS CYLINDERS</b>
ADA law	ADA accessible station		
1910.1450(d)(4) NFPA 45	<b>VENTILATION</b>		
<p><b>Key:</b>                      1910 = CFR                      40 CFR = EPA                      115C (listed here as NC GS) —                      Substitute your state statutes</p>			