ENVIRONMENTAL HEALTH AND SAFETY

CHEMICAL HYGIENE PLAN

Environmental Health and Safety | University Health Services Suite 002 | Stillwater, OK 74078
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Reviewed and Revised March 2026

Status

Contact(s)	Implementation Date	Comments
Matt Gallman, EHS	June 2017	Manual created.
Kim Southworth, EHS	May 2019	Added information about how this applies to faculty, staff, and students.
Janisue Coleman, EHS	August 2021	Updated important numbers and information.
Val Freeman & Alex Christy, EHS	March 2023	Added drench hose inspection information. Updated formatting to fit branding standards.
Val Freeman, EHS	March 2024	Added training requirements and updated important number contacts.
Val Freeman & Alex Christy, EHS	March 2025	Edited for grammar and clarity.
Val Freeman, EHS	March 2026	Updated important numbers and edited grammar.

Table of Contents

A: LABORATORY-SPECIFIC CHEMICAL HYGIENE PLAN

Department		
Building		
Room(s)		
Chemical Safety Level		
Title	**Name**	**Contact Information**
Principal Investigator or Laboratory Supervisor		
Laboratory Chemical Hygiene Officer		
Laboratory Worker		
Laboratory Worker		
Laboratory Worker		

B: IMPORTANT NUMBERS

Biological Safety	URC staff	744-3203
Chemical Hygiene	Myla Kara	744-2281
EHS Main Office	EHS staff	744-7241
Environmental Compliance	Brinney Mahmood	744-3031
Fire and Life Safety	Jerry Petre	744-1700
Industrial Hygiene	Kim Southworth	744-7243
Laboratory Safety	Val Freeman	744-7309
Laser Safety	URC staff	744-3474
Occupational Safety	EHS staff	744-3017
Radiation Safety	URC staff	744-3474
URC Main Office	URC Staff	744-1676

C: INTRODUCTION

This Chemical Hygiene Plan (CHP) has been created by the Department of Environmental Health and Safety (EHS) at Oklahoma State University (OSU) to assist faculty/staff with the evaluation and mitigation of hazards associated with laboratory operations. This CHP is intended to meet the requirements of the OSHA Laboratory Standard, 29 CFR 1910.1450. All employees who either direct the operations of a laboratory or perform work in any laboratory where chemicals are used must become familiar with the requirements of the Chemical Hygiene Plan. The Chemical Hygiene Plan is written to protect the health and safety of faculty, staff, and students.

The primary focus of this CHP is to provide guidance on the safe use of chemicals in the laboratory. The plan shall be made 'laboratory-specific' to ensure compliance with the OSHA Laboratory Standard is maintained. To make this plan 'laboratory-specific,' each laboratory must illustrate potential hazards in that space and develop Standard Operating Procedures (SOPs).

This CHP does not address the use of biological or radioactive materials or the disposal of biological or radioactive wastes. Questions and concerns involving these topics are to be addressed to University Research Compliance personnel.

D: ROLES AND RESPONSIBILITIES

CHEMICAL HYGIENE OFFICER

Chemical Hygiene Officers (CHO) are individuals who provide guidance in the development and implementation of this CHP. The department will designate an individual to act as the CHO. This individual will be the main contact or director unless delegated to another qualified individual.

MAIN CONTACT OR DIRECTOR

- Develop and implement SOPs
- Ensure that employees know and follow the safety guidelines
- Ensure that protective apparel and equipment are available and appropriate for potential exposures
- Ensure the appropriate training has been provided and documented
- Conduct regular internal safety inspections
- Ensure that facilities and training are adequate for the use of any material that is present in the work area
- Report incidents and near-misses in accordance with the procedures outlined in OSU's Laboratory Safety Manual (LSM)
- Implement and enforce the use of safety procedures
- Ensure the availability of chemical inventory and Safety Data Sheets (SDS)

EMPLOYEES

- Plan and conduct each operation in accordance with the LSM and this CHP
- Comply with all aspects of the EHS safety program and participate in training concerning the requirements of the laboratory safety program and other applicable environmental, safety, and health regulations
- Request information or training when unsure how to work with a hazardous chemical or new procedure
- Follow all health and safety procedures
- Wear or use required personal protective equipment (PPE)
- Report all hazardous conditions to the supervisor
- Report any job-related incidents, injuries, or illnesses to the supervisor immediately
- Provide the initial response for any safety incidents

ENVIRONMENTAL HEALTH AND SAFETY

- Work with personnel to develop and implement appropriate chemical hygiene and safety policies and practices
- Provide disposal routing and monitoring of chemical waste
- Perform annual laboratory surveys to ensure compliance with the LSM
- Assist with training programs as needed or requested
- Assist personnel with issues regarding chemical safety
- Provide industrial hygiene monitoring and services as needed
- Serve as the university subject-matter experts concerning laboratory safety
- Respond to chemical-related laboratory incidents

E: HAZARD MITIGATION

HAZARD IDENTIFICATION

Entrance Signage
All laboratories and chemical storage areas will have entrance signage at all doors leading into the workplace. This signage shall consist of Global Harmonization System pictograms and a National Fire Protection Association 704 diamond identifying the categories of hazardous materials found in the laboratory. The entrance signage shall also include the PPE required for entrance into the workplace.

An emergency contact information placard that identifies who to call in case of an emergency shall also be attached to the entrances. This placard shall provide the names and after-hours phone numbers of those individuals who know the chemicals that may be affected by an emergency in the laboratory.

Labeling
All chemical containers shall be labeled with the full chemical or trade name of the contents. The manufacturer's label will provide personnel with specific information regarding the physical and health hazards of the substance. The manufacturer's directions on the label must be followed.

All substances transferred from an original container to a secondary container shall be labeled with the full trade or chemical name of the contents, the concentration of the chemical, the date of the transfer, the expiration date, and the physical and health hazards associated with the chemical. Peroxide forming chemicals, in addition to the aforementioned requirements, must also include the date of peroxide testing and the peroxide concentration (see Appendix A).

Abbreviations or codes are only permissible if they are referenced or prominently displayed in the workplace. Chemical symbols or structures are only acceptable if the compound is newly synthesized and referenced in research documentation.

Chemical Inventory
A complete chemical inventory of all chemicals found at the worksite must be maintained at all times. Chemical inventories will be tracked using the OSU CampusOptics online program.

Departments will reconcile the inventory annually. During the year, it is the responsibility of the Primary Investigator (PI) and/or departments to keep the inventory data current. This includes significant/permanent changes in inventory volumes or additions of new hazardous materials.

Safety Data Sheets
As required by OSHA's Hazard Communication Standard and Right-to-Understand Laws, an SDS must be

available for each chemical used in the workplace. These must be available in the workplace for employee review. The SDSs for all hazardous chemicals should be used during the work-specific training of employees.

HAZARD ASSESSMENT

Each laboratory PI will be responsible for assessing the hazardous situations, chemicals, equipment, energy sources, etc., that may cause potential exposure or injury to staff members working in the laboratory. This assessment will be used to develop SOPs for each hazardous material or procedure found in the laboratory. The SOPs must include the appropriate engineering controls, administrative controls, and PPE to mitigate the hazards.

In addition to the hazards assessed by laboratory PIs, EHS will designate all laboratories that use hazardous chemicals into one of three chemical safety levels:

Chemical Safety Level 1	Low health or physical hazard from chemicals. Small amounts (less than 1 liter) of concentrated reagent strength acids or bases. Possesses no (or very limited amounts) toxic or high hazard materials. Less than 40 liters of flammable liquids stored. May need a fume hood for specific activities.
Chemical Safety Level 2	Moderate chemical or physical hazard. Laboratory work with concentrated acids, bases, toxics, other high hazard chemicals, or cryogenic liquids. Corrosive, flammable, or toxic compressed gases are present in cabinets or fume hoods. Larger volumes (> 40 liters) of flammable liquids are stored in the lab. High hazards in limited quantities may be in the laboratory with EHS approval (hydrofluoric acid, pyrophoric chemicals, cyanides). Laboratories are fume hood or local exhaust intensive. Some use of a glove box for air or water reactive chemicals is present.
Chemical Safety Level 3	High chemical or physical hazard. Work with explosives or potentially explosive compounds, or frequent use of larger quantities of pyrophoric chemicals. Use of large quantities or high hazard materials with significant potential for Immediately Dangerous to Life and Health conditions in the event of uncontrolled release or foreseeable incident. Use of glove box for pyrophoric or water reactive chemicals.

**Any work involving Chemical Safety Level 3 Compounds (see Appendix B) should be reported to EHS so a detailed hazard assessment and SOP review can be performed.*

EHS Laboratory Safety Survey

EHS will conduct a laboratory safety survey of each research laboratory at least every three years.

The frequency of the laboratory surveys is dependent on the chemical safety level assigned during the hazard assessment:

- Chemical Safety Level 1: every three years
- Chemical Safety Level 2: every two years
- Chemical Safety Level 3: annually

This survey will concentrate on laboratory safety issues such as chemical, physical, and general safety. The laboratory's training documentation, written SOPs, chemical inventory, and SDSs will be required for review at the time of the survey.

During this survey, any safety deficiencies will be noted by EHS auditors and explained to the PI. A summary letter will be delivered to each PI to identify these concerns and to offer recommendations to correct the deficiencies. Follow-up surveys may be performed to ensure compliance.

STANDARD OPERATING PROCEDURES

The PI/Laboratory Supervisor is responsible for developing written standard operating procedures for routinely performed tasks or any work with hazardous chemicals that are not addressed in the LSM. Examples include working with explosives, peroxide forming chemicals, and/or pyrophoric materials.

SOPs must include the following elements:

- Introductory information - title, department, building, room, and supervisor
- Procedure overview - brief description of the project and/or procedure
- Health and safety information for hazardous chemicals – brief description of the hazards associated with the materials or equipment required for the procedure
- Hazard control measures - engineering controls, administrative controls, and PPE that will be used to mitigate hazards
- Method procedures - systematic instruction for the procedure
- Waste disposal procedures
- First aid procedures
- Spill and release containment, decontamination, and clean-up procedures
- Author and approved signatures
- Training records – should include the date, the trainer, and the names and signatures of each employee for each laboratory SOP

See Appendix C for SOP template.

TRAINING

All laboratory employees will be trained by the PI/Laboratory Supervisor regarding the laboratory-specific chemical hazards. Each employee shall receive this training at the time of initial assignment to the laboratory and prior to assignments involving new exposure situations.

This training shall include, but is not limited to:

- Contents of the OSHA Laboratory Standard and the Chemical Hygiene Plan
- Hazards identified by the PI
- Specific SOPs involving hazardous materials or situations in the laboratory space
- Methods for detecting the presence of chemicals
- Physical and health hazards of the chemicals in the lab
- Permissible Exposure Limits (PELs)
- Symptoms of exposure
- Measures employees must follow to protect themselves from exposures to these hazards
- Availability of reference materials, such as Safety Data Sheets
- A list of procedures that need prior approval by the PI/Laboratory Supervisor before starting

In addition to laboratory-specific training, EHS requires that all employees attend general training over the topics of laboratory safety, hazard communication, and hazardous waste. This training can be provided by individual departments or EHS and must be completed every three years.

State law requires all OSU employees to receive safety training at least four times a year. This training must be on topics appropriate to the nature and severity of the hazards faced by the employee.

CHEMICAL USAGE

Designated Chemical Use Areas
Each laboratory where chemicals will be used must be assessed and designated as a chemical use area. No chemicals will be used in areas where staff will be working at desks, or in areas where staff may be eating or drinking, etc.

Chemical Storage Areas
Each laboratory will have designated chemical storage areas that are clearly labeled. The chemicals in these storage areas must be compatible with one another to avoid any unwarranted chemical reactions. For example, strong acids should not be stored with strong bases, and flammable gases should not be stored near oxygen. A detailed chemical storage guideline is available in Appendix D.

Engineering Controls
Physical barriers placed between the staff member and the hazard, known as "engineering controls", will be employed to minimize or eliminate potential hazards in all laboratories. These may include fume hoods, glove boxes, shields, increased ventilation, point-source vapor collection, etc.

Fume hoods shall be used any time staff are using any hazardous chemical or gas. All work shall be performed a minimum of six inches from the front edge of the hood. The sash should be lowered to the prescribed height.

EHS will profile all fume hoods at least annually to ensure that the face velocity and airflow are functioning as required. If, for any reason, the hood is not working correctly, all work in the hood must cease until the hood has been repaired. If the hood is not functioning properly, a work order shall be submitted to Facilities Management. The laboratory staff will be responsible for clearing all chemicals and equipment from the hood and cleaning any contamination from the hood's surfaces.

Personal Protective Equipment
PPE should be used by staff members as a final means of barrier protection against hazards. The PPE shall be fit to the individual and be specific for the hazard. Staff members must be trained in the use and wearing of the PPE. PPE may include gloves, safety goggles, laboratory coats, and under special conditions, respirators.

The manufacturer's glove compatibility charts must be consulted to ensure that the gloves intended to be worn would adequately protect the wearer.

If there are any concerns about the need for respiratory protection, please contact EHS so an evaluation can be made. If there is a need for a respirator, the individual(s) will be placed into the Respiratory Protection Program. This will require a medical evaluation, proper fit testing of the respirator, and training on use, care, and maintenance of the respirator.

Chemical Waste Disposal and Spill Control
EHS will dispose of chemical waste. A removal request must be submitted with a list of the substances for disposal.

Spills and contaminated areas should be cleaned by laboratory staff if they have the correct spill control material, have been trained in proper and safe handling of the spilled material, and can perform the clean-up safely. If there is any concern about the spill clean-up, the laboratory staff should call EHS to have the spill and area cleaned.

Emergency Equipment
All laboratory workers will be instructed by the PI/Laboratory Supervisor on the location and correct use of safety showers, eyewash stations, drench hoses, and fire extinguishers.

Emergency safety showers, eyewash stations, and drench hoses will be checked by EHS on an annual basis. In

addition to an annual check, eyewash stations and drench hoses should be checked by laboratory staff on a weekly basis. If there are any concerns about the emergency equipment not functioning properly, a work order shall be submitted to Facilities Management.

Fire extinguishers in laboratories will be checked by EHS on a monthly basis. Any concerns about the functionality of a fire extinguisher, or the need for a specific fire extinguisher, should be addressed to the University Fire Marshal.

MONITORING OF HAZARDOUS EXPOSURES

Personnel monitoring shall be informed if there is a reason to believe that the exposure level of any chemical may exceed the action level or PEL. Monitoring will be performed by EHS staff or assignee. Results of the monitoring will be discussed with the affected employees.

MEDICAL CONSULTATIONS AND EXAMINATIONS

OSHA requires medical consultations, follow-up examinations, and treatment for employees that may have been exposed to hazardous materials.

The following circumstances could indicate an exposure incident:

- Development of signs or symptoms associated with exposure to a hazardous substance
- Exposure monitoring reveals an exposure level above the action level for an OSHA regulated substance for which there are exposure monitoring and medical surveillance requirements
- An event that exposes employees to hazardous substances
- The use of an eyewash or safety shower as the result of a spill or splash

The medical consultations and examinations will be provided at no charge to the employee, without loss of pay, and at a reasonable time and place. Any staff member requiring medical attention should report to University Health Services during working hours or Stillwater Medical Center after hours. In case of an emergency, call 911.

MONITORING OF HAZARDOUS EXPOSURES

All accidents involving employees must be reported to OSU. Visit our website for more information on accidents and injuries.

RECORD KEEPING

Accident forms shall be completed and filed after any accident or chemical exposure. EHS will maintain all records of exposure monitoring. The health care provider will maintain medical records.

Training records shall be kept by the PI/Laboratory Supervisor.

EHS does not require copies of the SOPs or training but will monitor and review the laboratory information during laboratory safety surveys.

LABORATORY STANDARDS

The OSHA Laboratory Standard 29 CFR 1910.1450 is available online here.

A general overview of the Laboratory Standard is available here.

HAZARD ASSESSMENT AND PERSONAL PROTECTIVE EQUIPMENT

The PI/Laboratory Supervisor has certified that the hazards have been assessed and can be reduced through the use of selected PPE. This assessment is in accordance with 29 CFR 1910.132, and its related standard, 29 CFR 1910.140.

F: REFERENCES

This CHP was adapted from the University of Florida's "Chemical Hygiene Plan for University of Florida Laboratories" and Yale University's "Laboratory Chemical Hygiene Plan."

APPENDIX A: PEROXIDE FORMING CHEMICALS

Peroxide-forming chemicals are compounds that have the capability to form explosive peroxides. Many of these peroxide-forming chemicals are commonly used organic solvents, but when they are allowed to form peroxides, they can become more shock-sensitive than TNT. Users of these chemicals should pay special attention to when the chemical was received, when the chemical was opened, and when the chemical should be tested for peroxide concentration. Some common peroxide forming chemicals are listed in the table below.

CLASSES OF PEROXIDE-FORMING CHEMICALS	
Class A: Chemicals that form explosive peroxides without concentration. *(Should be discarded or evaluated for peroxides within 3 months of the opening date. If unopened, should be stored for no more than 18 months.)*	
Isopropyl ether	Sodium amide (sodamide)
Butadiene	Tetrafluoroethylene
Chlorobutadiene (chloroprene)	Divinyl acetylene
Potassium amide	Vinylidene chloride
Potassium metal	
Class B: Chemicals that form peroxides upon concentration (distillation/evaporation). *(Should be discarded or evaluated for peroxides within 12 months of the opening date. If unopened, should be stored for no more than 18 months.)*	
Acetal	Dioxane (*p*-dioxane)
Cumene	Ethylene glycol dimethyl ether (glycol)
Cyclohexene	Furan
Cyclooctene	Methyl acetylene
Cyclopentene	Methyl cyclopentane
Diaacetylene	Methyl isobutyl ketone
Dicyclopentadiene	Tetrahydrofuran
Diethylene glycol dimethyl ether (diglyme)	Tetrahydronaphthalene
Diethyl ether	Vinyl ethers
Secondary alcohols	
Class C: Unsaturated monomers that may autopolymerize as a result of peroxide accumulation if inhibitors have been removed or are depleted. *(Uninhibited materials should not be stored for longer than 24 hours. Opened, inhibited materials should be discarded or evaluated within 12 months. If unopened, should be stored for no more than 18 months.)*	
Acrylic acid	Styrene
Butadiene	Vinyl acetate
Chlorotrifluoroethylene	Vinylacetylene
Ethyl acrylate	Vinyl chloride
Methyl methacrylate	Vinyl pyridine

*This table is not all inclusive but includes common peroxide-forming chemicals found at OSU.

APPENDIX B: CHEMICAL SAFETY LEVEL 3 COMPOUNDS

Chemical Name	CAS #
1,3-Bis(2-chloroethylthio)-n-propane	63905-10-2
1,4-Bis(2-chloroethylthio)-n-butane	142868-93-7
1,5-Bis(2-chloroethylthio)-n-pentane	142868-94-8
2-chloroethyl ethylsulfide	693-07-2
2-Chloroethylchloro-methylsulfide	2625-76-5
2-Ethoxyethanol	110-80-5
2-Ethoxyethylacetate	111-15-9
2-Methoxyethanol	109-86-4
2-Methoxyethylacetate	110-49-6
5-Nitrobenzotriazol	2338-12-7
Acetone cyanohydrin, stabilized	75-86-5
Acrolein	107-02-8
Aluminum phosphide	20859-73-8
Ammonia	7664-41-7
Arsenic	7440-38-2
Arsenic trichloride	7784-34-1
Arsenic trioxide	1327-53-3
Arsine	7784-42-1
Beryllium	7440-41-7
Bis(2-chloroethylthio)methane	63869-13-6
Bis(2-chloroethylthiomethyl)ether	63918-90-1
Boron tribromide	10294-33-4
Boron trichloride	10294-34-5
Boron trifluoride	7637-07-2
Bromine	7726-95-6
Bromine chloride	13863-41-7
Bromine pentafluoride	7789-30-2
Bromine pentafluoride	7789-30-2
Bromine trifluoride	7787-71-5
Bromine trifluoride	7787-71-5
Cadmium	7440-43-9
Calcium phosphide	1305-99-3
Carbon monoxide	630-08-0

Chemical Name	CAS #
Carbonyl fluoride	353-50-4
Carbonyl sulfide	463-58-1
Chlorine	7782-50-5
Chlorine dioxide	10049-04-4
Chlorine pentafluoride	13637-63-3
Chlorine trifluoride	7790-91-2
Chloroacetyl chloride	79-04-9
Chlorosarin	1445-76-7
Chlorosoman	7040-57-5
Chlorosulfonic acid	7790-94-5
Chromium (VI)	7440-47-3
Cyanogen	460-19-5
Cyanogen chloride	506-77-4
DF	676-99-3
Diborane	19287-45-7
Dichlorosilane	4109-96-0
Diethyl methylphosphonite	15715-41-0
Diethyleneglycol dinitrate	693-21-0
Dimethyl sulfate	77-78-1
Dimethylmercury	593-74-8
Dingu	55510-04-8
Dinitrogen tetroxide	10544-72-6
Dinitroresorcinol	519-44-8
Dipicryl sulfide	2217-06-3
Ethyl phosphonyl difluoride	753-98-0
Ethylene dibromide	106-93-4
Ethylene oxide	75-21-8
Ethyleneimine	151-56-4
Ethylphosphonothioic dichloride	993-43-1
Fluorine	7782-41-4
Germane	7782-65-2
Germanium tetrafluoride	7783-58-6
Hexaethyl tetraphosphate	757-58-4
Hexafluoroacetone	684-16-2

Chemical Name	CAS #
Hexanitrostilbene	20062-22-0
HN1 (nitrogen mustard-1)	538-07-8
HN2 (nitrogen mustard-2)	51-75-2
HN3 (nitrogen mustard-3)	555-77-1
Hydrogen bromide	10035-10-6
Hydrogen chloride	7647-01-0
Hydrogen cyanide	74-90-8
Hydrogen fluoride	7664-39-3
Hydrogen iodide	10034-85-2
Hydrogen selenide	7783-07-5
Hydrogen sulfide	7783-06-4
Isopropylphosphonothioic dichloride	1498-60-8
Isopropylphosphonyl difluoride	677-42-9
Lewisite 1	541-25-3
Lewisite 2	40334-69-8
Lewisite 3	40334-70-1
Lithium amide	7782-89-0
Lithium nitride	26134-62-3
Magnesium phosphide	12057-74-8
Mercury - metallic	7439-97-6
Methyl chloromethyl ether	107-30-2
Methyl mercaptan	74-93-1
Methylchlorosilane	993-00-0
Methyldichlorosilane	75-54-7
Methylhydrazine	60-34-4
Methyllithium	917-54-4
Methylphosphonothioic dichloride	676-98-2
MPTP	28289-54-5
N,N-(2-diethylamino)ethanethiol	100-38-9
N,N-(2-diisopropylamino)ethanethiol	5842-07-9
N,N-(2-dimethylamino)ethanethiol	108-02-1
N,N-(2-dipropylamino)ethanethiol	5842-06-8
N,N-Diethyl phosphoramidic dichloride	1498-54-0
N,N-Diisopropyl phosphoramidic dichloride	23306-80-1

Chemical Name	CAS #
N,N-Dimethyl phosphoramidic dichloride	677-43-0
N,N-Dipropyl phosphoramidic dichloride	40881-98-9
N-butyllithium	109-72-8
Nickel carbonyl	13463-39-3
Nitric oxide	10102-43-9
Nitrogen dioxide	10102-44-0
Nitrogen mustard hydrochloride	55-86-7
Nitrogen trioxide	10544-73-7
Nitromannite	15825-70-4
Nitrostarch	9056-38-6
Nitrosyl chloride	2696-92-6
Nitrotriazolone	932-64-9
o,o-Diethyl S-[2-(diethylamino)ethyl] phosphorothiolate	78-53-5
Octolite	57607-37-1
Octonal	78413-87-3
O-Mustard (T)	63918-89-8
Oxygen difluoride	7783-41-7
Pentaborane	19624-22-7
Pentolite	8066-33-9
Perchloryl fluoride	7616-94-6
PETN	78-11-5
Phenyllithium	591-51-5
Phosgene	75-44-5
Phosphine	7803-51-2
Phosphorus	7723-14-0
Phosphorus oxychloride	10025-87-3
Phosphorus pentasulfide	1314-80-3
Phosphorus trichloride	7719-12-2
Potassium cyanide	151-50-8
Potassium phosphide	20770-41-6
Propylphosphonothioic dichloride	2524-01-8
Propylphosphonyl difluoride	690-14-2
QL	57856-11-8
Sarin	107-44-8

Chemical Name	CAS #
s-butyllithium	598-30-1
Selenium hexafluoride	7783-79-1
Sesquimustard	3563-36-8
Silane	7803-62-5
Silicon tetrafluoride	7783-61-1
Sodium cyanide	143-33-9
Sodium phosphide	12058-85-4
Stibine	7803-52-3
Strontium phosphide	12504-16-4
Sulfur dioxide	7446-09-5
Sulfur tetrafluoride	7783-60-0
Tabun	77-81-6
T-butyllithium	594-19-4
Tellurium hexafluoride	7783-80-4
Tetraethyl lead	78-00-2
Tetramethyl lead	75-74-1
Tetranitroaniline	53014-37-2
Tetrazene	109-27-3
Thiodiglycol	111-48-8
Titanium tetrachloride	7550-45-0

Chemical Name	CAS #
TNT	118-96-7
Torpex	67713-16-0
Trichlorosilane	10025-78-2
Trifluoroacetyl chloride	354-32-5
Trifluorochloroethylene	79-38-9
trimethylsilyl diazomethane	18107-18-1
Trinitroaniline	26952-42-1
Trinitroanisole	606-35-9
Trinitrobenzene	99-35-4
Trinitrobenzenesulfonic acid	2508-19-2
Trinitrobenzoic acid	129-66-8
Trinitrofluorenone	129-79-3
Trinitro-meta-cresol	602-99-3
Trinitronaphthalene	55810-17-8
Trinitrophenetole	4732-14-3
Trinitroresorcinol	82-71-3
Tritonal	54413-15-9
Tungsten hexafluoride	7783-82-6
VX	50782-69-9

APPENDIX C:

Double click for the PDF template.

Oklahoma State University
Environmental Health & Safety
University Health Services, Suite 002
Stillwater, Oklahoma 74078
(405) 744 - 7241

LABORATORY STANDARD OPERATING PROCEDURE

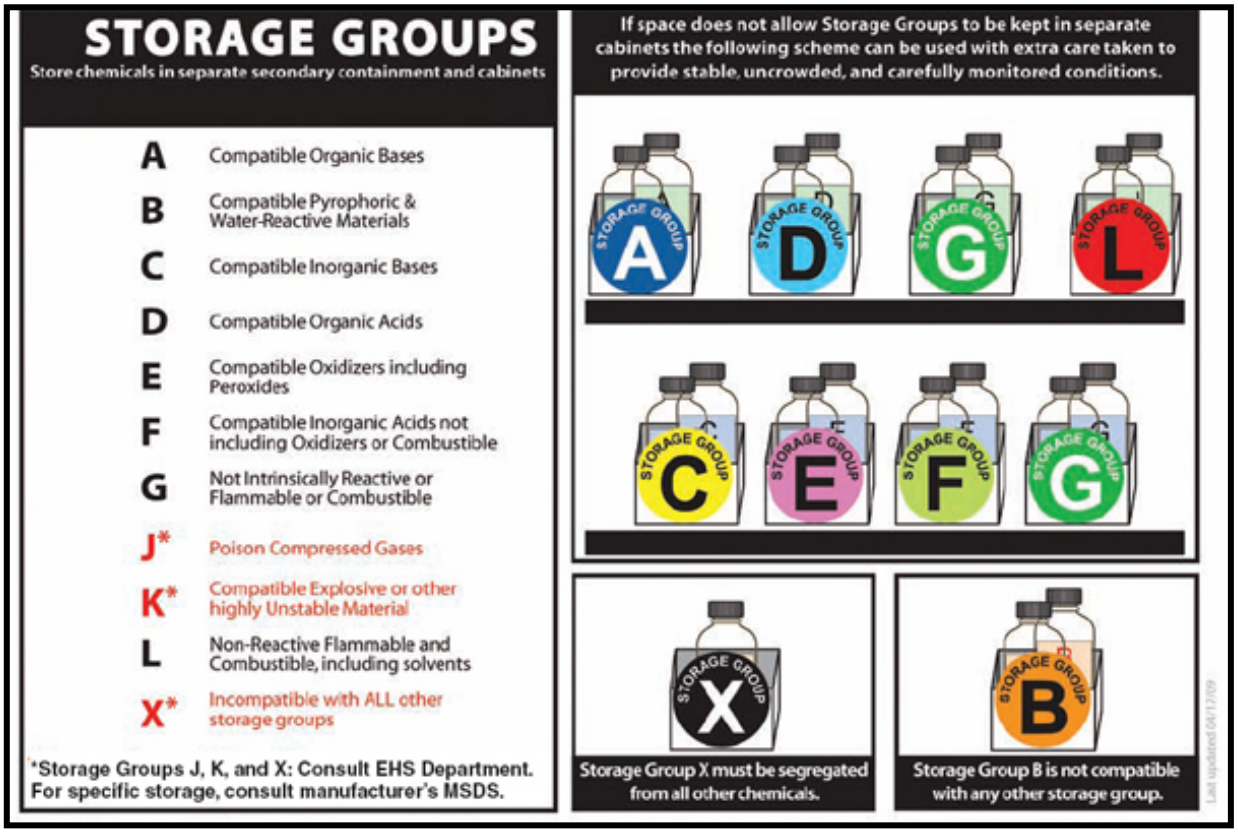
Procedure Title:_____

PI/Supervisor: _____

Dept:_____ **Bldg/Rm:** _____

Procedure
Provide specific experimental steps.

APPENDIX D:


STORAGE GROUPS
Store chemicals in separate secondary containment and cabinets
A Compatible Organic Bases
B Compatible Pyrophoric & Water-Reactive Materials
C Compatible Inorganic Bases
D Compatible Organic Acids
E Compatible Oxidizers including Peroxides
F Compatible Inorganic Acids not including Oxidizers or Combustible
G Not Intrinsically Reactive or Flammable or Combustible
J* Poison Compressed Gases
K* Compatible Explosive or other highly Unstable Material
L Non-Reactive Flammable and Combustible, including solvents
X* Incompatible with ALL other storage groups
*Storage Groups J, K, and X: Consult EHS Department. For specific storage, consult manufacturer's MSDS.
If space does not allow Storage Groups to be kept in separate cabinets the following scheme can be used with extra care taken to provide stable, uncrowded, and carefully monitored conditions.
STORAGE GROUP A
STORAGE GROUP D
STORAGE GROUP G
STORAGE GROUP L
STORAGE GROUP C
STORAGE GROUP E
STORAGE GROUP F
STORAGE GROUP G
STORAGE GROUP X
Storage Group X must be segregated from all other chemicals.
STORAGE GROUP B
Storage Group B is not compatible with any other storage group.