

SKIDMORE COLLEGE

DEPARTMENT OF CHEMISTRY

LABORATORY SAFETY GUIDELINES FOR STUDENTS

The laboratory component of chemistry courses at Skidmore College is considered an integral part of the study of chemistry. Activities and explorations will encourage discovery, verification of accepted theories, and hands on practice with techniques and instrumentation. Laboratory experiments planned by the faculty of the Department of Chemistry and are instructive, efficient, enjoyable and safe. Although everything is done to maximize safety in the laboratory, certain unavoidable potential hazards exist. Each student can help to maintain a safe environment for everyone working in a laboratory by *preparing properly* for the experiment and by *planning the work to be done*. Additionally, it is necessary to arrive promptly at the beginning of the laboratory in order that the lecture regarding theory, special safety considerations/hazards, and chemical waste management regarding substances used/operations performed is clearly understood. It is the policy of the Department of Chemistry that should a student miss this lecture, participation in the laboratory is denied. *Appropriate conduct is required at all times, and concentration on work is expected.*

Guidelines presented in this manual are designed for the student in order to provide a reference to the general safety regulations and proper laboratory practices endorsed by the Department of Chemistry. *Used in conjunction with the guidance of the faculty*, these guidelines provide a coherent plan to follow with respect to the prevention of injury and damage to property.

Since laboratory is an integral component of the course, *the contents of this manual are subject to testing/grading*. All students must understand the information in this document, and *must sign the declaration on the last page of this manual* prior to undertaking any work in the laboratory.

I. General Safety Requirements, Information, and Practices

1. *Personal Protective Equipment* must be used in accordance with the hazards of the substances/equipment being used.
 - ◆ *Safety goggles* must be worn at all times in all laboratories by students, visitors, and faculty. A student found without goggles twice during a laboratory will be asked to leave for the remainder of the experiment and will receive a failing grade for the day. Repetition of the violation may result in a recommendation by the Department that the student withdraw from the course.
 - ◆ *Chemically resistant gloves* and *aprons* should be used when working with toxic and/or corrosive materials. Check the reagent bottle or the *Material Safety Data Sheet* (MSDS) for toxicity and corrosivity potential(s). See Section IV for information on MSDS forms.
 - ◆ *Face shields* must be worn whenever the potential for explosion exists, or whenever one is in doubt regarding the potential for explosion.
2. *Safety/Emergency Equipment* must be located during the first lab session, and *its use must be understood*.
 - ◆ *Fire Extinguishers, Safety (drench) Showers, Eye Wash Fountains and basic First Aid Equipment* are available in each teaching laboratory. The instructor will point out the location and explain the proper use of these items during the first lab period.

- ◆ *Fire alarms* are located
 - (1) at either end of the hallway on the (north) faculty office side of Dana Science Center.
 - (2) along the south wall of Dana Science Center facing Saisellin Art Building.
 - ◆ A *mercury spill kit* is located on the wall in Dana 208 (general chemistry preparation area). If mercury is spilled (i.e. broken thermometer), inform a faculty member immediately.
 - ◆ *Dust pans and brushes* are available in each teaching laboratory for clean up of broken glass. *Broken glass containers* are available in each laboratory for proper disposal of these materials. Never place broken glass in the trash can.
 - ◆ A portable *Emergency Spill Response kit* for hazardous chemical clean up is located in Dana 236. When in doubt about how to clean up any spill, consult a faculty member.
3. If the *fire alarm* sounds or an order is issued for *emergency evacuation*, all flames must be extinguished and electrical heating equipment turned off. Students* in Dana 200, 201, 202, 203, and 204 must immediately exit via the south side of the laboratory, continue out the emergency stairways, move away from the building, and congregate in order that attendance can be taken. **Note: Physically challenged individuals may exit via the north side of the laboratory in order to make use of building ramps.* Students working elsewhere (i.e. research laboratories) will exit according to the directive provided by the instructor.
 4. *Fume hoods* must be turned on and used whenever an activity involves production of unpleasant or hazardous vapors, use of air or water reactive reagents, use of highly corrosive or flammable materials, or any time when there may be uncertainty as to the result of a reaction. *Work in non-functioning fume hoods is prohibited.*
 5. *Flames* (i.e. Bunsen burners) should never be left unattended, and should never be used when heating a volatile/flammable substance or mixture. *Hot plates or heating mantles* (connected to *power mites/Variacs* (that allow for temperature control) should be selected for the activity. *No open flames are permitted in the lab when volatiles are being used outside of a fume hood.*
 6. All *fires/accidents* must be immediately reported to the instructor, including minor cuts/burns.
 7. **Food consumption/smoking/drinking are never permitted** in any laboratory.
 8. *Oral contact with anything* while working in the laboratory is forbidden. This includes (but is not limited to) food, beverages, chemicals, pens, pencils, fingers, hoses and pipettes (*Note: Never pipette anything by mouth. Bulbs are available for drawing liquid into pipettes.*)
 9. *No unauthorized experimentation is permitted under any circumstances.* Students may not perform experiments other than those specifically approved by the instructor. Additionally, any procedural changes must also be approved prior to initiation.
 10. *Inspect equipment prior to use.* All clamps must be tight, rubber hoses secure and in good condition, glassware free of chips/cracks, electrical cords in good condition, etc. Discard questionable materials and replace them with new pieces. *Report any questionable equipment to the instructor.*
 11. *Never work alone.* Unsupervised work is not permitted. For students enrolled in regular classes, no availability exists for laboratory work outside of scheduled laboratory classes. *Note: exceptions to this rule may be made only in the case of students in upper level courses or in the case of student assistants.* These exceptions must be explicitly approved by the instructor/supervisor.

12. *Beware of glass/porcelain.* The vast majority of lab accidents involve cuts from glass or burns from hot glass/porcelain. In the rush to clean up after a lab, students often neglect to allow sufficient time for equipment to cool down.
13. *Appropriate clothing must be worn at all times.* Feet should be totally protected (no sandals), and clothing should adequately cover the body and not be overly loose. Lab coats/aprons are encouraged.
14. *Long hair* must be tied back/secured.
15. *Neatness in the laboratory is imperative.* It is not only essential to successful work, but also effective in the reduction of accidents. The work area should be kept clear of all materials except those needed for the immediate task.
16. *Read all labels carefully.* Be *certain* that the proper chemical is being dispensed. Check the warning labels for toxicity/hazards, and refer to the MSDS (see Section IV of this document) if necessary.
17. *Never pour unused chemicals back into the reagent bottle. Never put a pipette directly into a reagent bottle.* Strive to estimate the amount of reagent required.
18. *No chemicals, apparatus, or equipment may be removed from any laboratory* for any reason whatsoever without the instructor's knowledge and consent.
19. *Report any equipment failure* to the instructor. Never attempt to adjust it without guidance.
20. *Questions regarding safety/good lab practice should be immediately posed to the instructor.*
When in doubt, ask before acting!

II. Emergency Procedures

The severity of an injury may be difficult to determine initially, therefore all injuries, fires, and explosions must be reported to the instructor at once. Any injury that cannot be handled with a simple bandage must be handled by a physician, either at Health Services or at the Emergency Room of Saratoga Hospital.

1. If you cannot help during an emergency, get out of the way of people who can.
2. *Fire:* Report all fires immediately to the instructor, and leave the laboratory at once. Do not attempt to extinguish a fire unless an instructor is not nearby or unless someone is in immediate danger of serious injury. See Section I, #2 for the location of fire alarms.
3. *Clothing fires:* If clothing catches fire, *call for help*, get under the safety shower and pull the chain. If not near a shower, grab the nearest fire blanket, drop to the floor and roll in it. *Note: Never wrap vertically in a fire blanket as the chimney effect might draw flame upward toward the face.* If neither safety shower or fire blanket is close by, drop to the floor and roll. *Important: Never use a carbon dioxide fire extinguisher on a person as the intense cold may result in severe injury.*
4. *Chemicals in the eye(s):* If any chemical has splashed into the eyes, *immediately call for help* and *rush to the eyewash fountain*. Push the paddle (which will allow water to flow spontaneously without further effort), and hold the lid(s) of the affected eye(s) open. **Flush eyes for a minimum of 15 minutes!** An instructor will notify Health Services, and arrange for transportation.

5. Chemical spills on the body: If chemicals are spilled over a large area of the body, go under the *safety shower* and pull the chain. *Remove any affected clothing*. If chemicals are spilled over a small area of the body, flush with cold water and wash with soap. In either case, *notify the instructor* in order that the MSDS sheet can be checked for toxicity, corrosivity, etc. If needed, the instructor will arrange for transportation to Health Services.
6. Ingestion of a chemical: If any chemical is swallowed or gets into the mouth, rinse it out and spit. *Immediately notify the instructor* who will follow the procedure in #5 above.

III. Admission to Laboratories and Supervision of Work

1. No person is permitted access to any non-public area within the Department of Chemistry unless specific, approved business is being conducted.
2. Access to the storeroom and cold room is limited to student assistants and research students unless a faculty member is present.
3. Visitors are permitted *only with approval of the instructor in charge* of a given laboratory. All visitors are subject to the safety regulations (including goggles) of the Department.
4. No student may work in an instructional laboratory unless a supervisor authorized by the Department is in attendance. While the supervisor may be absent for short periods of time, a student who continues to work after the supervisor has left for the day, or who works after the laboratory has been formally closed is guilty of a serious breach of departmental regulations.

IV. Material Safety Data Sheets

Material Safety Data Sheets (MSDS) provide information designed to protect individuals from hazards that may be associated with use of a chemical. ***MSDS forms are available in the Office of the Department of Chemistry (Dana 272) during normal teaching/office hours. They may also be accessed online at www.msdssearch.com/DBLinksN.htm.*** Particularly recommended on this website are the databases provided by **Cornell University and Vermont SIRI**.

Although instructors will provide safety information regarding the specific chemicals used in each experiment, *students are encouraged to routinely examine MSDS data for required reagents*. Typical information found on an MSDS includes the following:

CATEGORY	TYPE OF INFORMATION
NAME OF SUPPLIER	Address and Emergency Contact numbers
NAME OF THE CHEMICAL	Common synonyms are listed
PHYSICAL AND CHEMICAL PROPERTIES	Melting/boiling pts., molecular weight, etc.
PHYSICAL HAZARDS	Data on flammability, reactivity, corrosivity
TOXICITY DATA	Permissible Exposure Limits/Threshold Limit Values
HEALTH HAZARDS	(Acute & Chronic) Signs, Symptoms, Routes of Entry, Identification of Carcinogens, etc.
STORAGE AND HANDLING INFORMATION	Personal Protective Equipment; proper storage
EMERGENCY AND FIRST AID PROCEDURES	Emergency Treatment; Fire and Spill Handling

A sample MSDS form is included on page 7 of this manual. Be sure to review its format.

V. Laboratory Conduct and Student Responsibilities

1. All students are expected to demonstrate mature judgment and common sense in their work and conduct while working in the laboratory. Horseplay, practical joking, working while under the influence of alcohol or drugs, or any other form of conduct deemed unsafe by the instructor is unacceptable and is grounds for immediate dismissal from the laboratory.
2. All spills must be *promptly* cleaned up. Ask the instructor for advice on how to clean up and dispose of any spilled chemical.
3. Make certain that all apparatus is clean and put away at the end of the laboratory. Double check to be sure that reagent bottles are tightly closed and stored in the proper place. Leave the lab bench clean and dry.
4. Any reaction mixtures or products that must be stored until the next laboratory ***must be labeled with the contents, the date, the name of the experimenter, and a notation indicating any hazards associated with the material.***
5. All hazardous waste accumulated during lab must be brought to the *Satellite Hazardous Waste Collection Area and placed in the appropriate container.* Seal the waste container before leaving.

VI. Chemical and Equipment Safety

Assume that all chemicals are hazardous, and treat them accordingly. Although the following guidelines are by no means comprehensive/complete, the specific hazards and policies associated with various chemicals/equipment provides a basis for safe laboratory practice.

1. Many common organic solvents are under suspicion as potential carcinogenic agents. Among these are Dichloromethane, Carbon Tetrachloride, and Chloroform. Treat all organic solvents with respect and minimize contact with both the liquid and the vapors.
2. Methanol is very toxic and can cause blindness if ingested. It can be absorbed through the skin and contact should be avoided. If accidental contact occurs, wash thoroughly with soap and water.
3. Addition of strong oxidizing agents to organic matter may lead to fire/explosion. Common oxidizing agents used in the laboratory include nitric acid, nitrates, nitrites, chlorates, and compounds with “per” in their name (example: potassium permanganate).
4. Due to their *extremely hazardous nature*, the following chemicals and equipment *may not* be handled by students* except under the direct supervision of an instructor:

CHEMICALS	EQUIPMENT
Elemental Bromine	Gas Cylinders
All Cyanides	UV Lamps
Hydrofluoric Acid	Vacuum Equipment
Perchloric Acid (>6M)	Lasers
Nicotine	

*Upper level students engaged in research must be specifically trained prior to using any of the above.

5. Compounds of heavy metals, especially lead, arsenic, antimony, bismuth and mercury are very toxic. Chromates and dichromates are capable of producing ulcerous sores, and are carcinogenic. Minimize contact with these substances.
6. All compounds labeled “stench”, malodorous compounds (examples: mercaptans, low molecular weight organic acids, amines), and compounds that evolve toxic vapors must be used in the hood.
7. Drying ovens are not approved for flammable substances. Under no circumstances may any flammable material be stored in one. Drying ovens are used only for drying non-flammable solids that are wet with/have absorbed water. All chemicals stored in drying ovens must be properly labeled (see Section V, #4 of this document).
8. Sodium and Potassium metal react violently with water. Magnesium metal is very flammable. Obtain advice from an instructor prior to their use.
9. Ethers have a tendency to form dangerously explosive peroxides over time. Never attempt to open an old ether can unless there is certainty regarding lack of peroxide formation. Open all cans of ether under a hood with the sash pulled as low as possible. Never store ether in a glass container.
10. Considerable heat is often evolved when concentrated liquids are diluted with water. *The concentrate is always added to water; never the reverse.* (Example: pour concentrated acid into water).
11. Gas cylinders may only be used by research/upper level students who have been specifically trained in safety considerations. When using cylinder gas, make certain that the cylinder is firmly anchored (strapped). Avoid bumping the cylinder regulator. If the cylinder does not open easily, consult the instructor. Never use a pipe wrench on a cylinder.
12. Work involving either pressure or vacuum should be done only with equipment expressly designed for this purpose. Proper shielding is required.
13. Cryogenic substances such as dry ice, liquid nitrogen, and liquid ammonia may be used only after special training by an instructor occurs.
14. Consider electrical hazards carefully. Certain instruments have high voltage components. Report malfunctioning equipment to the instructor.
15. Any apparatus with moving pulleys or shafts (pumps, power tools) presents special safety concerns. Loose clothing poses a particular hazard when working with this type of equipment.

VII. Radiation Safety

Skidmore College is licensed by the New York State Department of Health to possess limited quantities of certain radioactive substances. The Department owns certain sources of X-Radiation. Use of any radiation producing substance is strictly regulated and is limited to specially trained individuals. No person may possess or use any source of ionizing radiation within the Department *without the explicit approval* of Dr. William Standish, Radiation Safety Officer.

ALDRICH CHEMICAL -- 84417 **HYDROCHLORIC ACID** - HYDROCHLORIC ACID SOLUTION
MATERIAL SAFETY DATA SHEET
NSN: 681000F005176
Manufacturer's CAGE: 60928
Part No. Indicator: A
Part Number/Trade Name: 84417 HYDROCHLORIC ACID

General Information

Item Name: HYDROCHLORIC ACID SOLUTION
Company's Name: ALDRICH CHEMICAL CO INC.
Company's Street: 1001 WEST SAINTT PAUL AVE
Company's P. O. Box: 355
Company's City: MILWAUKEE
Company's State: WI
Company's Country: US
Company's Zip Code: 53233
Company's Emerg Ph #: 414-273-3850, 800-231-8327/325-5832
Company's Info Ph #: 414-273-3850/FAX -4979
Record No. For Safety Entry: 001
Tot Safety Entries This Stk#: 001
Status: SE
Date MSDS Prepared: 01APR92
Safety Data Review Date: 07JUN94
Supply Item Manager: AF
MSDS Serial Number: BTJWR
Specification Number: NONE
Spec Type, Grade, Class: NONE
Hazard Characteristic Code: C1

Ingredients/Identity Information

Proprietary: NO
Ingredient: HYDROGEN CHLORIDE (HYDROCHLORIC ACID) (SARA III)
Ingredient Sequence Number: 01
Percent: 36.5
NIOSH (RTECS) Number: MW4025000
CAS Number: 7647-01-0
OSHA PEL: C 5 PPM
ACGIH TLV: C 5 PPM; 9394
Other Recommended Limit: NONE RECOMMENDED

Physical/Chemical Characteristics

Appearance And Odor: CLEAR, COLORLESS, LIQUID, CHLORINE ODOR.
Boiling Point: 230F,110C
Decomposition Temperature: UNKNOWN
Solubility In Water: COMPLETE
pH: <2
Corrosion Rate (IPY): UNKNOWN

Fire and Explosion Hazard Data

Extinguishing Media: USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL.
Special Fire Fighting Proc: WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY.
Unusual Fire And Expl Hazrds: COMBUSTION OR HEAT OF FIRE MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS AND VAPORS.

Reactivity Data

Stability: YES
Cond To Avoid (Stability): HIGH HEAT, OPEN FLAMES AND OTHER SOURCES OF IGNITION
Materials To Avoid: STRONG OXIDIZING AGENTS
Hazardous Decomp Products: WHEN HEATED TO DECOMPOSITION, EMITS TOXIC HYDROGEN CHLORIDE FUMES. WILL REACT WITH WATER TO PRODUCE HEAT & TOXIC FUMES.
Hazardous Poly Occur: NO
Conditions To Avoid (Poly): NOT APPLICABLE

Health Hazard Data

LD50-LC50 Mixture: LD50 (ORAL RAT) IS 900 MG/KG
Route Of Entry - Inhalation: YES
Route Of Entry - Skin: YES
Route Of Entry - Ingestion: YES
Health Haz Acute And Chronic: ACUTE: CORROSIVE! INHALATION CAN CAUSE COUGHING, CHOKING, & INFLAMATION OF THE RESPIRATORY TRACT. SWALLOWING CAN CAUSE BURNS TO MOUTH & G.I. TRACT. EYE CONTACT CAN CAUSE SEVERE BURNS &

DAMAGE. SKIN CONTACT CAN CAUSE SEVERE BURNS AND DEEP ULCERS & DISCOLOR SKIN. CHRONIC: CONCENTRATED VAPORS MAY CAUSE EROSION OF TEETH.

Carcinogenicity - NTP: NO

Carcinogenicity - IARC: NO

Carcinogenicity - OSHA: NO

Explanation Carcinogenicity: HYDROCHLORIC ACID IS NOT LISTED BY IARC, NTP,

OR OSHA AS A CARCINOGEN.

Signs/Symptoms Of Overexp: INFLAMMATION OF THE NOSE, THROAT, UPPER RESPIRATORY TRACT, EYES, SKIN AND MUCOUS MEMBRANES. VERY CORROSIVE AND CAN CAUSE SEVERE BURNS AND DAMAGE. LONG TERM EXPOSURES SELDOM OCCUR DUE TO THE CORROSIVE PROPERTIES OF THE ACID.

Med Cond Aggravated By Exp: PERSONS WITH A HISTORY OF AILMENTS OR WITH A PRE-EXISTING DISEASE INVOLVING THE EYES, SKIN, OR RESPIRATORY TRACT MAY BE AT INCREASED RISK FROM EXPOSURE.

Emergency/First Aid Proc: INHALATION:REMOVE TO FRESH AIR. RESUSCITATE IF NOT BREATHING. GET MEDICAL ATTENTION.

EYES:IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR 15 MINUTES HOLDING EYELIDS OPEN. GET IMMEDIATE MEDICAL

ATTENTION. SKIN:REMOVE CONTAMINATED CLOTHING. WASH WITH SOAP AND WATER. GET IMMEDIATE MEDICAL ATTENTION.

INGESTION:DO NOT INDUCE VOMITING. GIVE NOTHING BY MOUTH IF UNCONSCIOUS GET IMMEDIATE MEDICAL ATTENTION.

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: SMALL SPILL: FLUSH WITH WATER AND NEUTRALIZE WITH ALKALINE MATERIAL. SEWER NEUTRALIZED MATERIAL WITH EXCESS WATER. LARGE SPILL: EVACUATE AND VENTILATE AREA. IF POSSIBLE, STOP LEAK. DIKE TO RETAIN RUN OFF. NEUTRALIZE & PICK UP WITH ABSORBENT MATERIAL.

Neutralizing Agent: SODA ASH, LIME OR OTHER SUITABLE ALKALINE MATERIAL.

Waste Disposal Method: DISPOSAL SHOULD BE MADE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS. DISPOSE IN A RCRA-APPROVED WASTE FACILITY OR SEWER THE NEUTRALIZED SLURRY WITH EXCESS WATER IF LOCAL ORDINANCES ALLOW.

Precautions-Handling/Storing: STORE IN A COOL, DRY, WELL VENTILATED AREA. KEEP CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. PROTECT CONTAINERS FROM PHYSICAL DAMAGE & DIRECT SUNLIGHT.

Other Precautions: DO NOT TAKE INTERNALLY. DO NOT BREATHE MIST. AVOID PROLONGED OR REPEATED BREATHING OF VAPOR.

AVOID CONTACT WITH EYES. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. FOR INDUSTRIAL USE ONLY.

Control Measures

Respiratory Protection: IF VENTILATION DOES NOT MAINTAIN INHALATION EXPOSURES BELOW PEL(TLV), USE NIOSH/MSHA APPROVED FULL FACEPIECE CHEMICAL CARTRIDGE RESPIRATOR OR A SUPPLIED AIR FULL FACEPIECE RESPIRATOR OR AIRLINED HOOD.

Ventilation: A SYSTEM OF LOCAL EXHAUST IS RECOMMENDED TO KEEP EMPLOYEE EXPOSURES BELOW THE TLV.

Protective Gloves: NEOPRENE OR RUBBER GLOVES

Eye Protection: CHEMICAL SAFETY GOGGLES WITH FACE SHIELD

Other Protective Equipment: EYE WASH STATION AND SAFETY SHOWER. IMPERVIOUS BOOTS, APRON, OR COVERALLS AS REQUIRED.

Work Hygienic Practices: OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. DO NOT WEAR CONTAMINATED CLOTHING OR FOOTWEAR.

Suppl. Safety & Health Data: AVOID PROLONGED OR REPEATED EXPOSURE. DO NOT GET ON SKIN OR IN EYES. DO NOT BREATHE VAPORS OR MISTS. PROTECT FROM MOISTURE.

Label Data

Label Required: YES

Technical Review Date: 07JUL94

Label Status: F

Common Name: 84417 HYDROCHLORIC ACID

Signal Word: DANGER!

Acute Health Hazard-Moderate: X

Contact Hazard-Severe: X

Fire Hazard-None: X

Reactivity Hazard-None: X

Special Hazard Precautions: CORROSIVE LIQUID! ACUTE-INHALATION:IRRITATION OF THE RESPIRATORY TRACT. INGESTION:BURNS TO MOUTH & G.I. TRACT. EYE:SEVERE BURNS & DAMAGE. SKIN:SEVERE BURNS AND DEEP ULCERS. CHRONIC:EROSION OF REMOVE TO FRESH AIR. RESUSCITATE IF NOT BREATHING. GET MEDICAL ATTENTION.

EYES:IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION. SKIN:REMOVE CONTAMINATED CLOTHING. WASH WITH SOAP AND WATER. GET MEDICAL ATTENTION. INGESTION:DO NOT INDUCE VOMITING. GIVE NOTHING BY MOUTH IF UNCONSCIOUS. GET IMMEDIATE MEDICAL ATTENTION.

Protect Eye: Y

Protect Skin: Y

Protect Respiratory: Y

Label Name: ALDRICH CHEMICAL CO INC.

Label Street: 1001 WEST SAINTT PAUL AVE

Label P.O. Box: 355

Label City: MILWAUKEE

Label State: WI

Label Zip Code: 53233

Label Country: US

Label Emergency Number: 414-273-3850, 800-231-8327/325-5832

CHEMISTRY LABORATORY SAFETY

AGREEMENT

I have read the Laboratory Safety Guidelines for Students published by the Department of Chemistry of Skidmore College, and I understand its contents. I agree to abide by all of its rules at all times in any laboratory in which chemical operations are occurring. I understand that violation of safety regulations may result in my expulsion from the laboratory and that continued infractions may result in my being withdrawn from the course.

Signature

Print Name Legibly

Date _____

Course: CH _____

Laboratory Section _____

Room #: Dana _____

Desk # _____