

THE SCHOOL OF  
PACKAGING



MICHIGAN STATE  
UNIVERSITY

SITE SPECIFIC SAFETY  
AND  
STANDARD OPERATING PROCEDURES  
DOCUMENT

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and  
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## 1.0 SCOPE

The purpose of this document is to supplement the MSU Chemical Hygiene Plan to provide site specific laboratory safety and standard operating procedures for the School of Packaging (SoP). All researchers, students, and employees are to comply with these procedures to ensure the safe and efficient operation of the School. Safety is the responsibility of everyone working in university laboratories, and is essential to facilitating a clean and hazard free environment.

## 2.0 ADMISSION TO THE SCHOOL OF PACKAGING LABORATORIES

The following procedures must be followed before individuals will be allowed to work in the School of Packaging laboratories. The omission of any of these steps may result in the denial of lab use or other appropriate action.

- 2.1 **Complete the Hazardous Waste Initial safety course** given by Environmental Health and Safety (EHS). This course is to be taken online at the EHS web site (<http://www.aware.msu.edu/TRAIN/CHI/>). This covers general chemical hygiene and hazardous waste regulations and procedures. You must take the Hazardous Waste Refresher course annually to continue to be eligible to conduct work in the School of Packaging laboratories.
- 2.2 **Complete the Cryogen safety course** given by EHS. This course is to be taken online at the EHS website (<http://www.aware.msu.edu/TRAIN/CRY/>). This covers the safe use of cryogenics, including liquid nitrogen.
- 2.3 **Complete the Compressed Gas Cylinder safety course** given by EHS. This course is to be taken online at the EHS web site (<http://www.aware.msu.edu/TRAIN/CGC/>). This covers general hazards and proper handling techniques of compressed gas cylinders.
- 2.4 **Complete the Biosafety Principles safety course** given by EHS. This course is to be taken online at the EHS web site (<http://www.oeos.msu.edu/TRAIN/BSP/>). This covers general hazards and proper handling techniques of biological materials. Select the “Lab/Microbe” module when given the option at the beginning of the course.
- 2.5 **Review the MSU Chemical Hygiene Plan** which can be found at the EHS website at [http://www.ehs.msu.edu/chemical/programs\\_guidelines/chem\\_hygiene/chem\\_hygiene\\_plan/chem\\_hygiene\\_plan\\_full.pdf](http://www.ehs.msu.edu/chemical/programs_guidelines/chem_hygiene/chem_hygiene_plan/chem_hygiene_plan_full.pdf) and in the Lab Manager’s office, room 118. The MSU Chemical Hygiene plan provides a general guide for handling hazardous chemicals in laboratories. Guidelines outlined in this document must be strictly followed to ensure compliance with regulatory agency requirements.
- 2.6 **Review the MSU Hazardous Waste Disposal Guide** which can be found at the EHS web site at [http://www.ehs.msu.edu/waste/programs\\_guidelines/WasteGuide/wastedisposalguide.pdf](http://www.ehs.msu.edu/waste/programs_guidelines/WasteGuide/wastedisposalguide.pdf) and in the Lab Manager’s office, room 118. The MSU Hazardous Waste Disposal guide details how to properly dispose of waste materials. Guidelines outlined in this document must be strictly followed to ensure compliance with regulatory agency requirements.
- 2.7 **Review this School of Packaging Site Specific Safety document** in its entirety and become familiar with the policies and procedures within.

- 2.8 **Complete the School of Packaging Site Specific training** with the Laboratory Manager. This on-site orientation reviews safety items that were discussed in the online modules and standard operating procedures specific to the School of Packaging. Please make arrangements for this training by contacting the Laboratory Manager via email.
- 2.9 **Fill out the Application to Work in School of Packaging Laboratory form and submit to the Laboratory Manager, room 118.** This form can be obtained from the School of Packaging Lab Manager's office, room 118, from page 15 in the appendix of this document, or from [http://www.packaging.msu.edu/research/for\\_researchers](http://www.packaging.msu.edu/research/for_researchers).

### 3.0 STANDARD OPERATING PROCEDURES

The following standard operating procedures must be observed when using the School of Packaging laboratories and equipment. Failure to observe these procedures can result in the loss of lab privileges or other appropriate action.

#### 3.1 Work hours

Standard work hours for the School of Packaging are considered to be Monday through Friday between the hours of 8:00am and 5:00pm. For individuals that demonstrate that work needs to be conducted outside of this time frame, you must obtain approval to work after hours from the Laboratory Manager or appropriate faculty member.

#### 3.2 General housekeeping

Keep work areas clean and uncluttered. Clean up work area at the conclusion of your experiment or equipment use, including floors, bench tops, equipment, and tools. Dispose of gloves and paper products in appropriate waste bins. Clean glassware and put in proper storage area. Dispose of any broken non-contaminated glass in broken glass bucket, and dispose of sharps in sharps containers. If you have items such as materials, extrudate, or specimens that need to be stored, please arrange to have them stored in one of the School of Packaging storage rooms by contacting the Laboratory Manager or appropriate faculty member.

#### 3.3 Security

Report any suspicious or malicious activity observed in the School of Packaging. Never give access to labs or offices to unknown individuals. Keep keys secured at all times, and always keep lab doors closed and locked.

#### 3.4 Instrument specific training

After admission to the School of Packaging, you must contact the Laboratory Manager to obtain equipment training. You cannot use the equipment by yourself until you have demonstrated that you can operate it independently and proficiently.

#### 3.5 Instrument reservation schedules

Instrument reservation system can be accessed at <http://web2.msue.msu.edu/packaging/>. This is to be used to reserve equipment time, and is MANDATORY FOR THE USE OF EVERY INSTRUMENT. The reservation schedule is also used as the instrument log book to keep track of usage. Please reserve the equipment for only the time needed, and if plans change and you will not be using your allotted time, please remove your reservation as soon as possible. Individuals that consistently fail to reserve time for the use of instruments will be

subject to appropriate corrective action, which can include having lab privileges revoked. If you are more than 30 minutes late for a reserved time, your time block may be forfeited.

### 3.6 **Broken or malfunctioning equipment**

Report broken or malfunctioning equipment to the Laboratory Manager. Damaged equipment can be a safety hazard, and reporting equipment problems ensures that it stays operational for everyone to use. If you make a mistake resulting in equipment damage, please report to the Laboratory Manager. Mistakes, while not endorsed, are common in a learning environment and reporting them is necessary to keep equipment operational and to ensure individuals learn correct operation methods.

### 3.7 **General safety principles**

The following general safety principles must be observed at all times when working in the School of Packaging laboratories. Repeat offenders and the failure to comply with these standards can result in appropriate corrective action and the revocation of lab privileges.

- 3.7.1 Wear appropriate safety equipment which may include aprons, gloves, lab coats, splash shields, safety glasses, and goggles. Safety glasses must be procured by individuals using the lab and must be worn any time the potential for impact or splashing exists. Undergraduate students must wear safety glasses at all times during lab classes. See Figure 1 in the appendix at the end of the document for eye and face protection recommendations.
- 3.7.2 Be familiar with the chemicals and compounds you are using for experimental setups and with the operation of lab equipment. If necessary, review hazards and proper handling techniques outlined in the applicable Safety Data Sheets (SDS).
- 3.7.3 Know the location of emergency equipment such as eyewash stations, safety showers, telephones, and fire alarms. Know emergency response procedures, which can be found in Section 5.0 on page 7 of this document.
- 3.7.4 No food or drink to be used for human consumption is allowed into the labs as specified in the MSU Chemical Hygiene Plan, Section 2.3.
- 3.7.5 Report any observed unsafe conditions or practices in the lab to any member of the safety committee.

### 3.8 **Chemicals**

#### 3.8.1 **Labeling**

All compounds in the School of Packaging laboratories must be labeled with the following information:

- 3.8.1.1 Unabbreviated chemical name
- 3.8.1.2 Owner
- 3.8.1.3 Date of acquisition or preparation
- 3.8.1.4 Hazards identification

Compounds missing any of this information are subject to disposal without notification. Please reference Figure 2 for proper labeling techniques.

#### 3.8.2 **Chemical check-in procedures/addition to inventory**

All chemicals must be logged into the School of Packaging chemical inventory database and must be labeled using the following process:

- 3.8.2.1 Fill out the SoP Chemical Inventory Update sheet located on the clipboard in each laboratory (example in appendix on page 16).
- 3.8.2.2 Be sure to check the “Add” box to indicate that the chemical is an addition to the inventory.
- 3.8.2.3 Label the chemical container with the following information printed neatly:
- Unabbreviated compound name
  - Full name and date of acquisition
  - Last name of your Principle Investigator (PI)
  - Hazards of the compound
- 3.8.2.4 It will be your responsibility to ensure your chemicals remain properly labeled.

**3.8.3 Chemical check-out procedure/removal from inventory**

All manufacturer’s chemical containers that are emptied must be removed from the School of Packaging chemical inventory.

- 3.8.3.1 Fill out the SoP Chemical Inventory Update sheet located on the clipboard in each laboratory (example in appendix on page 16).
- 3.8.3.2 Be sure to check the “Discard” box to indicate that the material is to be removed from the inventory.

**3.8.4 SDSs and MSU Chemical Hygiene Plan**

Chemical Safety Data Sheets (SDSs) are maintained in the EHS electronic database located at <http://www.aware.msu.edu/MSDS/search.htm?-DB=MSDS&-Lay=Form&-format=search.htm&-view>. You can also obtain SDS documents from the chemical vendor. You must submit an SDS for every single new chemical you bring into and use in the School of Packaging. You must review the SDS for the chemicals you are using and be familiar with associated hazards. We are required to have an SDS on file for every single chemical we have in the School of Packaging. The MSU Chemical Hygiene Plan is also available in the Lab Manager’s office, room 118, and on the EHS Web site at [http://www.ehs.msu.edu/chemical/programs\\_guidelines/programs\\_guidelines.htm](http://www.ehs.msu.edu/chemical/programs_guidelines/programs_guidelines.htm).

**3.8.5 Chemical storage**

Do not store chemical compounds in offices, drawers, on bench tops, or in the open. Store chemical compounds in designated storage areas only. Store only compatible chemicals in storage areas. Please reference Figure 3 for compatible chemical storage groups.

**3.9 Hazardous waste**

**3.9.1 General guidelines**

Generators of hazardous waste are responsible for the proper labeling and disposal of their waste. Leave the waste container in the same room where it is generated. If the waste product is not in the original container, a hazardous waste tag must be attached to it and must be completely filled out (See Figure 4). Hazardous waste tags can be obtained from the label station in room 163, from the Laboratory Manager, or from EHS. All hazardous waste containers must be

submitted to EHS for pickup within 90 days of first use. A hazardous waste pickup request form can be submitted at <http://www.oeos.msu.edu/chem-waste/new.htm>. MAKE SURE TO DISPOSE OF YOUR WASTE BEFORE THE 90 DAY LIMIT. Failure to comply with these protocols will result in appropriate corrective action.

### 3.9.2 **Sharps containers**

Red sharps containers are to be used for sharps disposal, which are defined as needles, syringes (with or without needle attached), scalpels, intravenous tubing with needles attached regardless of whether they are contaminated or not, and anything which is sharp enough to penetrate the skin and is contaminated with biological substances, per the Biological Safety Manual, which is located at [http://www.ehs.msu.edu/biological/programs\\_guidelines/biosafety\\_manual/Biosafety\\_Manual.pdf](http://www.ehs.msu.edu/biological/programs_guidelines/biosafety_manual/Biosafety_Manual.pdf). Red sharps disposal containers are located in the labs most likely to generate sharps waste. If you need more containers, notify the Laboratory Manager. Please label each container with the date that the first item was placed in it. Notify the Laboratory Manager when 90 days have passed since the first use of the red container so that a pick-up may be requested. Non-contaminated razor blades only should be disposed of in the yellow blades containers located in each laboratory.

### 3.9.3 **Broken glass buckets**

The red buckets located in the labs are for non-contaminated glass items only per the MSU Chemical Hygiene Plan section 3.4.2.1. Do not put paper products, gloves, razor blades, or any other items in them.

### 3.9.4 **Mercury spills**

In the event of a mercury spill, immediately contact a member of the safety committee and do not attempt to clean it up yourself. If the cleanup is not done properly, the mercury contamination can be made worse. If a member of the safety committee is not available, please contact EHS directly. The MSU Chemical Hygiene Plan contains detailed information on how to handle mercury spills.

## 3.10 **Gas Cylinders**

### 3.10.1 **General**

Be aware of the physical and toxicological hazards of gases being used, such as flammability, oxidizing, pyrophoric, corrosive, toxic, irritant, and cryogenic gases, and be aware of those that can cause asphyxiation. Do not store cylinders containing incompatible gases together (i.e. oxygen with flammable gases). Keep gas cylinders secured at all times, and remove the regulator and put on a safety cap before transport. Use only approved restraints (do not use bungee cords etc.). Do not rely on cylinder color to identify cylinder contents, always read the product label description. Never force an inlet fitting onto a valve or use an adaptor. Use appropriate safety gear such as safety glasses, goggles, gloves, etc. Emergency leaks - if the leak is significant or the gas involved is toxic or flammable (NFPA Rating 3 or 4), pull fire alarm, evacuate the area and call 911.

### 3.10.2 **Gas cylinder use and ordering**

Any gas cylinder entering or leaving the gas cylinder storage room (room 177) must be logged into the gas cylinder room log book. Please notify the Laboratory Manager when quantities are getting low according to Table 1 shown below. Users of instruments connected to liquid nitrogen dewars should monitor the level of the liquid nitrogen and notify the lab manager approximately one week before they are anticipated to be empty.

<b>Table 1. Gas Cylinder Order Chart</b>	<b>Gas</b>	<b>Notify Lab Supervisor When This Many Tanks Remain</b>
	<b>Nitrogen (99.97% purity)</b>	3
	<b>Air (medical)</b>	2
	<b>Air (zero)</b>	0
	<b>Helium (UHP - 99.999%)</b>	1
	<b>CO<sub>2</sub> (99.5% Purity)</b>	0
	<b>Hydrogen</b>	0
	<b>Oxygen</b>	0
	<b>2% H<sub>2</sub>/Balance N<sub>2</sub></b>	1

#### 4.0 THE SCHOOL OF PACKAGING CHECK OUT PROCEDURES

When leaving the School of Packaging, please use the following procedure to ensure chemicals and items associated with your projects are taken care of:

- 4.1 **Transfer all chemicals to a designate, or dispose** of in accordance with the MSU Chemical Hygiene Plan if no longer needed or past usable life.
- 4.2 **Fill out a School of Packaging checkout form** (available on page 17 in the appendix of this document)

#### 5.0 EMERGENCY/MEDICAL PROCEDURES

##### 5.1 Life threatening incident/injury

Call 911

##### Emergency Facility

Sparrow Hospital ER  
1215 E. Michigan Avenue  
Lansing MI 48909  
517-364-4141

Use this facility for critical emergencies: Severe burns, fractures, shock, seizure, shortness of breath, severe bleeding, chest pain, head injuries, motor vehicle accidents, chemical exposure, smoke inhalation. Also for bloodborne pathogen exposure when Olin Health Center is closed and non-life threatening incidents/injuries if Lansing Urgent Care is closed.

## 5.2 Non-life threatening incident/injury

### 5.2.1 *MSU Employees and Student Employees*

- 5.2.1.1 Immediately report the incident to your supervisor and obtain an Authorization to Invoice MSU form (located in appendix on page 18).
- 5.2.1.2 Take the Authorization to Invoice MSU form to the Primary Care Facility.

#### Primary Care Facility

**Lansing Urgent Care**  
505 North Clippert Street  
Lansing MI 48912

517-999-2273  
Open 24 hrs, 7 days a week

For a ride to Lansing Urgent Care  
call Capitol Transport  
517-485-4400

#### Bloodborne Pathogen Exposure Facility

**Olin Health Center**  
463 East Circle Drive  
East Lansing MI 48824

517-353-4660  
Monday-Friday, 8am – 6pm  
Saturday, 10am-1pm  
Closed Sunday

Summer Hours & Semester Breaks  
Monday-Friday, 8am – 5pm

For a ride to Olin Health Center  
call 517-353-4700

- 1.1.1.1 Fill out a Report of Claimed Occupational Injury or Illness (located in appendix on page 19) and have supervisor sign and submit within 24 hours of an injury/illness
- 1.1.1.2 Present result of visit to supervisor and follow all recommendations/restrictions.
- 1.1.1.3 Complete FMLA paperwork if applicable

### 5.2.2 *Students (non-employee)*

- 5.2.2.1 Immediately report the incident to your TA or instructor.
  - 5.2.2.1.1 TA or instructor fills out Injury/Property Damage Report (located in appendix on page 20) and sends to MSU Risk Management at [riskmgmt@msu.edu](mailto:riskmgmt@msu.edu).
- 5.2.2.2 Minor cuts can be treated with a first aid kit located in all labs or the main office, room 130.
- 5.2.2.3 If you require medical attention, go to a health care provider of choice keeping your medical insurance coverage in mind.
  - 5.2.2.3.1 Enrolled MSU students are allowed three free medical office visits to Olin Health Center per year.
- 5.2.2.4 The School of Packaging can arrange for transportation if needed.



### **5.3 Chemical Spill**

Follow procedures outlined in the MSU Chemical Hygiene Plan and applicable Safety Data Sheets (SDS).

### **5.4 Emergency Situation – Fire**

The following steps are basic protocol for handling a fire or fire-related emergency situation in the laboratory:

- 1.) Pull the fire alarm.
- 2.) Call 911 from a safe location.
- 3.) Notify the School of Packaging emergency/safety coordinator.
- 4.) Evacuate to rally points as indicated in Figure 5.


### **5.5 Tornado**

Seek shelter in a designated tornado shelter areas indicated in Figure 5.

6.0 APPENDIX

## Eye and Face Protection in MSU Laboratories

Appropriate eye and face protective equipment must be worn at all times in those labs where eye hazards exist. Guidelines for selecting appropriate eye and face protection

 <p><b>Safety Glasses</b></p>	 <p><b>Chemical Splash Goggles</b></p>	 <p><b>Face Shield + Chemical Splash Goggles</b></p>
<p><b>Required when:</b> An impact hazard exists or when working with low hazard chemicals*, or when a low probability of splash exists.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• Pipeting</li> <li>• Handling closed bottle of injurious chemical</li> <li>• Mixing solutions</li> <li>• Opening centrifuge tubes</li> </ul>	<p><b>Required when:</b> Working with smaller amounts of corrosive or injurious chemicals* and a reasonable probability of splash exists.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• Pouring acid out of a 1 pint bottle</li> <li>• Pouring methylene chloride from a 1 liter bottle</li> <li>• Working with liquids under pressure</li> </ul>	<p><b>Required when:</b> Working with larger quantities of corrosive chemicals* and / or a high probability of eye and face injury exists.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• Working with an acid bath</li> <li>• Pouring 4 liters of acid into a container</li> <li>• Handling highly reactive chemicals that may spatter</li> </ul>

\* Refer to the MSDS for additional hazard information. Please refer to the PPE Assessment for specific operations.

Note: Ordinary prescription glasses do not provide adequate protection against eye injury. Eye protection equipment must be ANSI Z87 approved.

For more information on the MSU Eye and Face Protection policy, visit our web page at: [www.orcbs.msu.edu/chemical/eye\\_face.htm](http://www.orcbs.msu.edu/chemical/eye_face.htm)

ORCBS Contact Information: • Phone: 355-0153 • Fax: 353-4871 • E-mail: [orcbs@msu.edu](mailto:orcbs@msu.edu) • Web: [www.orcbs.msu.edu](http://www.orcbs.msu.edu) • Hot-Line: 432-SAFE

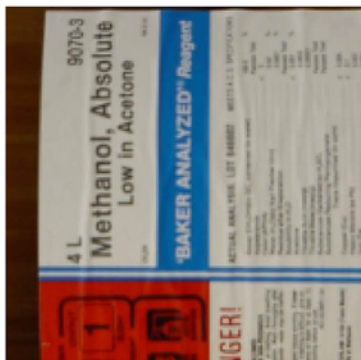
Figure 1– Eye and Face Protection Recommendations for MSU Laboratories

# Proper Labeling for Containers of Hazardous Chemicals in MSU Laboratories

## Labeling Basics

*For containers labeled by the manufacturer: (see left)*

1. Inspect the label on incoming containers.
2. Replace damaged or semi-attached labels.



*For transferred products or prepared solutions labeled by the user\*: (see right)*

1. Label each chemical container with the chemical name and hazard warning.
2. Refer to the Material Safety Data Sheet (MSDS) for hazard warnings.



## Alternate Method for Labeling Multiple Small Containers

### Legend Method:

1. Label containers with abbreviated chemical name and hazard warning.
2. Provide a key in a visible location in the lab with complete chemical name.
3. Document that employees are trained on the labeling system.



### Box or Tray Method:

1. Put containers in box or tray.
2. Label tray with chemical name and hazard warning.
3. If containers are removed from box/tray they must be properly labeled or returned to the box or tray within the workshift.\*
4. Document that employees are trained on the labeling system.



## Peroxidizable Chemicals

### Must be labeled with:

1. Date Received
2. Date Opened
3. Date Tested
4. Test Results



See CHP Appendix H for more information.

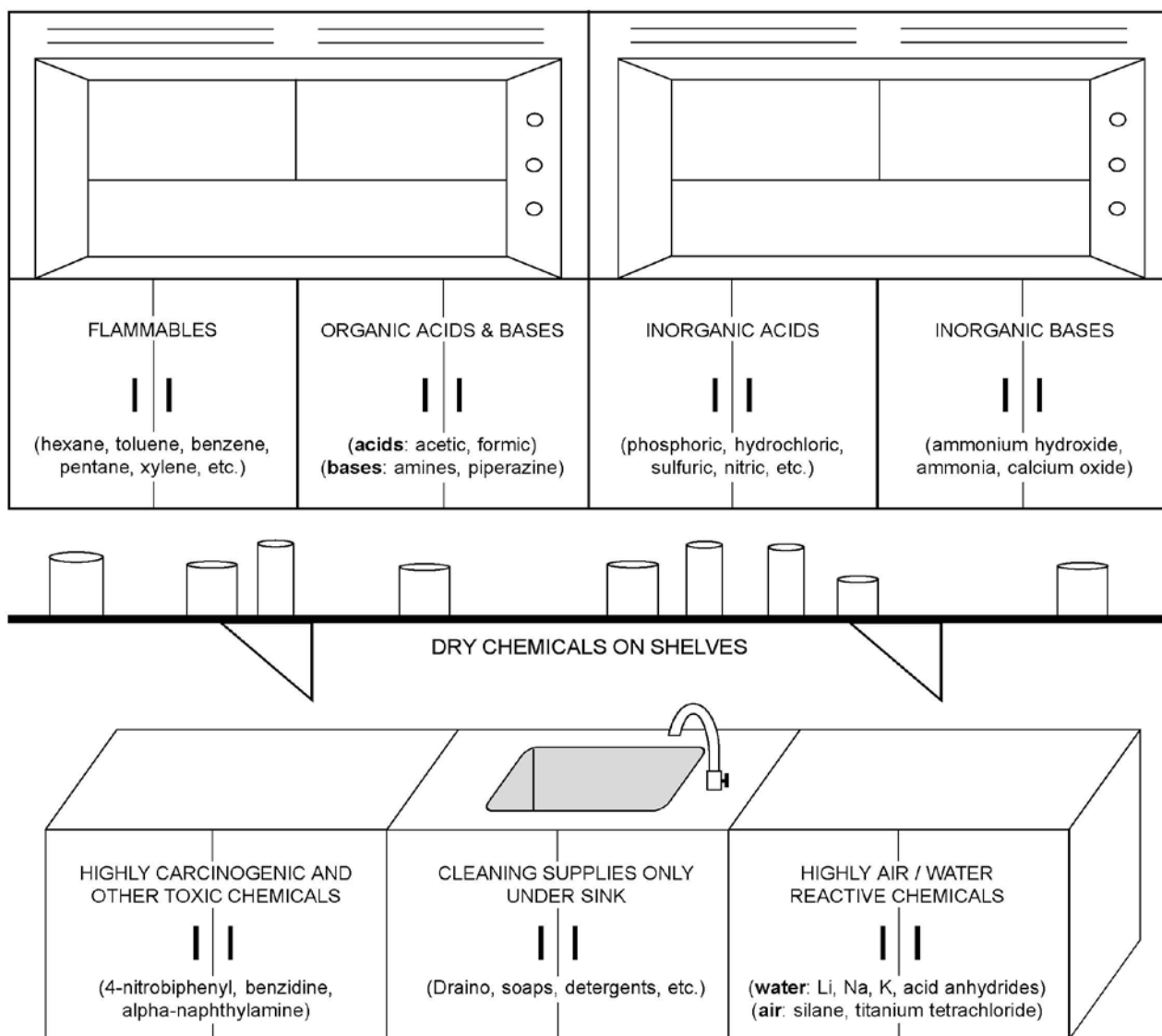
## ORCBS Contact Information:

Phone: 355-0153  
 Fax: 353-4871  
 E-Mail: [orcbs@msu.edu](mailto:orcbs@msu.edu)  
 Web: [www.orcbs.msu.edu](http://www.orcbs.msu.edu)  
 Hot-Line: 432-SAFE

\* If the container is created and emptied within the workshift and is under the control of the person transferring the chemical, it does not have to be labeled.

Figure 2 – Proper Chemical Labeling Requirements for MSU Laboratories

## COMPATIBLE CHEMICAL STORAGE GROUPS



### Major Chemical Storage Units with Examples:

<i>Organic Acids:</i>	propionic acid, trichloroacetic acid, acetic anhydride, acetyl bromide
<i>Organic Bases:</i>	hydroxylamine, ethylimine, tetramethylethylenediamine, triethylamine, phenylhydrazine
<i>Inorganic Acids:</i>	hydrobromic acid, chlorosulfonic acid, sulfonyl chloride, hydriodic acid, stannous chloride
<i>Inorganic Bases:</i>	hydrazine, sodium hydroxide and potassium hydroxide solutions
<i>Oxidizers:</i>	nitrates, persulfate, peroxides, iodates, nitric acid, chlorates, ozone, nitrites, permanganate
<i>Flammables:</i>	methanol, tetrahydrofuran, ethyl ether, ethyl acetate, heptane, ethanol, acetone
<i>Water Reactive:</i>	alkali metals such as Li, Na, K; lithium aluminum hydride; calcium hydride
<i>Air Reactive:</i>	silane, silicon tetrachloride, white or yellow phosphorus
<i>Carcinogens:</i>	2-acetylaminofluorene, benzene, chloroform, methylene chloride, formaldehyde
<i>Peroxide Formers:</i>	isopropyl ether, p-dioxane, tetrahydrofuran, ethyl ether

*Michigan State University ORCBS, 11/01*

Figure 3 – Compatible Chemical Storage Group Recommendations

# Required Elements of Proper Hazardous Waste Container Management

**MSU MATERIALS PICK UP TAG**

Project Leader \_\_\_\_\_ Dept. \_\_\_\_\_  
 Bldg & Room No \_\_\_\_\_ Phone \_\_\_\_\_  
 Filled Out By \_\_\_\_\_ Date \_\_\_\_\_

**CONTENTS** Unabbreviated Chemical Name \_\_\_\_\_ Amount or Approx Conc (ppm) \_\_\_\_\_

Color  Colorless  Light Brown  Other \_\_\_\_\_  
 Consistency  Waterylike  Viscous/Oily  Other \_\_\_\_\_  
 Container Size \_\_\_\_\_  Solid  Liquid  Container Used Items \_\_\_\_\_

**BIOLOGICAL AND ANIMAL ITEMS:**  
 Biohazardous Agents \_\_\_\_\_ DESCRIBE \_\_\_\_\_  
 Animals \_\_\_\_\_  
 Breeding, Mares, Feed \_\_\_\_\_  
 Chemically-contaminated animals or tissue, List chemical in ppm \_\_\_\_\_  
 Tissue or Blood Specimens \_\_\_\_\_  
 Plastics (syringes, vials, gloves, etc) \_\_\_\_\_  
 Non-infectious, non-hazardous \_\_\_\_\_  
 Other \_\_\_\_\_

Please indicate special handling or storage precautions: \_\_\_\_\_

**OFFICE USE ONLY** MANIFEST DOCUMENT # \_\_\_\_\_

See Instructions on Back Side  
 Indicate RCRA Waste Codes on Back Side



Fill immediately upon start



Use unabbreviated chemical names (no chemical shorthand - e.g. ETOH or CHCl<sub>3</sub>)

Fill in at least when full or at 90 days.



Fill immediately upon start

Record actual amounts or concentrations of mixture(s).

Completely fill out waste tag  
 Label each container with the words "Hazardous Waste".  
 Keep containers closed when NOT in use.  
 Do NOT overfill, leave 5% volume for expansion.  
 Dispose of waste within 90 days.  
 Do NOT mix incompatibles.  
 Store in a secure area.  
 Refer to the Waste Disposal Guide.  
 Submit a pickup request through the web-site.  
 Take the initial Chemical Hygiene / Hazardous Waste training at the ORCBS and complete your annual Hazardous Waste Refresher on-line each year.

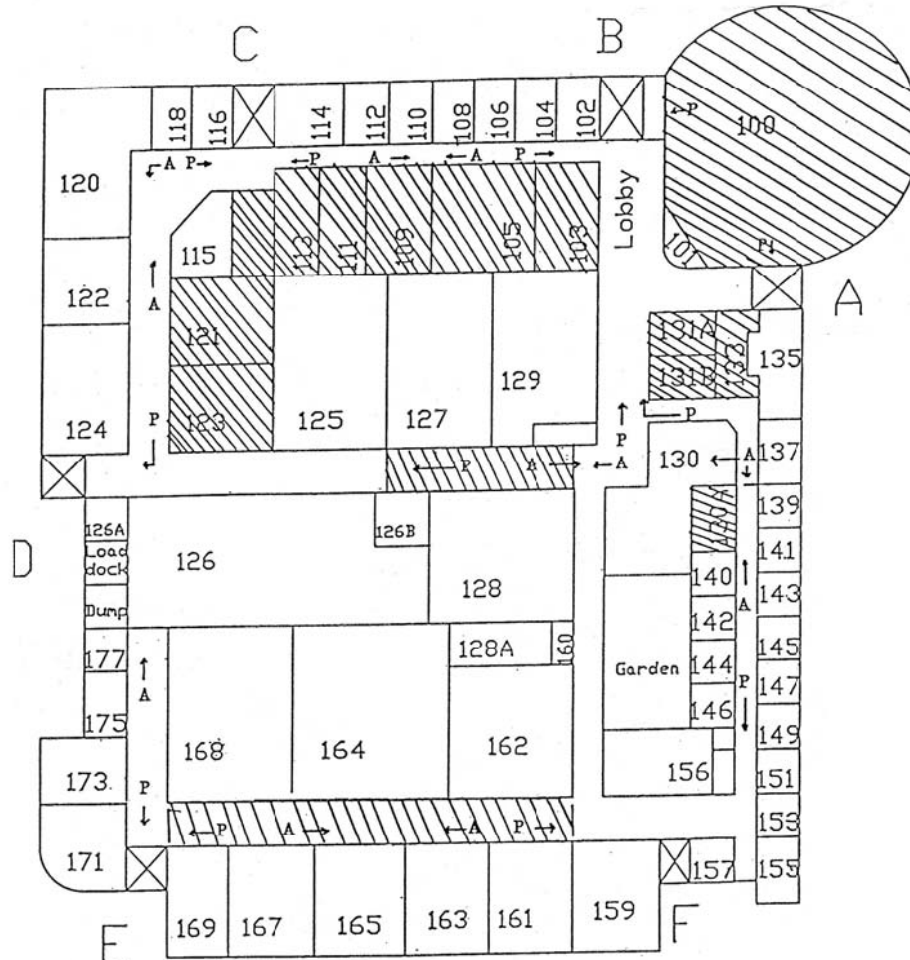


**ORCBS Contact Information**  
 Office Phone: (517) 355-0153  
 Office Fax: (517) 353-4871  
 Office E-mail: orcbs@msu.edu  
 Web Site: www.orcbs.msu.edu  
 Training Hotline: (517) 432-SAFE

Figure 4 – Proper Hazardous Waste Labeling Requirements for MSU

# School of Packaging

## TORNADO SHELTER AREAS AND EMERGENCY EXITS



P = Primary Exit  
 A = Alternate Exit  
 ▨ Tornado Shelter Areas

**EVACUATION RALLY POINT: Report to median on Wilson Road in front of Packaging Building (north side)**

Figure 5 – School of Packaging Floor Plan Showing Tornado Shelter Areas and Evacuation Routes

# Application To Work in SoP Laboratory

Print Form



Aaron Walworth  
Laboratory Manager  
School of Packaging  
Michigan State University  
448 Wilson Road, Rm 118  
East Lansing, MI 48824-1223  
Phone: 517-353-4439  
Fax: 517-353-8999

Notes:  
- Please print clearly and legibly.

Date:  Student Number:

Name:  E-mail Address:

Department:  MSU NetID:

Advisor's Name:  Advisor's e-mail:

Project Title:

Instruments that will be used:  
(costs will be provided upon request)

**Key(s) to the labs will not be issued until all safety training on this application has been completed.  
Training on specific instruments must be scheduled by contacting lab manager after completion of this general safety training.**

Date applicant took EHS Chemical Hygiene and Laboratory Safety initial training course ([aware.msu.edu/TRAIN/CHI/](http://aware.msu.edu/TRAIN/CHI/)):

Date applicant took EHS Cryogen Safety training ([aware.msu.edu/TRAIN/CRY/](http://aware.msu.edu/TRAIN/CRY/)):

Date applicant took EHS Compressed Gas Cylinder Safety course ([aware.msu.edu/TRAIN/CGC/](http://aware.msu.edu/TRAIN/CGC/)):

Date applicant took the EHS Biosafety Principles course ([oeos.msu.edu/TRAIN/BSP/](http://oeos.msu.edu/TRAIN/BSP/)):  
Choose "Lab/Microbe" Option

Date applicant reviewed MSU Chemical Hygiene Plan ([orcbs.msu.edu/chemical/programs\\_guidelines/chem\\_hygiene/chem\\_hygiene\\_plan/chp\\_full.pdf](http://orcbs.msu.edu/chemical/programs_guidelines/chem_hygiene/chem_hygiene_plan/chp_full.pdf)), Hazardous Waste Disposal Guide ([ehs.msu.edu/waste/programs\\_guidelines/WasteGuide/wastedisposalguide.pdf](http://ehs.msu.edu/waste/programs_guidelines/WasteGuide/wastedisposalguide.pdf)), and School of Packaging Site Specific Safety Document ([packaging.msu.edu/research/for\\_researchers](http://packaging.msu.edu/research/for_researchers)):

Date applicant attended the School of Packaging Site Specific training (*schedule with lab manager*):

**Informed Consent Statement:** By signing below, the applicant acknowledges that they have been informed about the location and contents of the MSU Chemical Hygiene Plan, the School of Packaging Site Specific Safety and Standard Operating Procedures Document, MSDS sheets, and the MSU Hazardous Waste Disposal Guide. Signing also acknowledges that the applicant has taken the required safety training from EHS.

Student Signature:  Date:

Advisor Signature:  Date:

SoP Approval:  Date:

Applicant Status (Check One):  Staff  M.S.  Ph.D.  Undergrad  Other, please describe:

# Chemical Inventory Updates

MUST BE FILLED OUT ANY TIME A MANUFACTURER'S CHEMICAL CONTAINER IS BROUGHT INTO LAB or EMPTIED

\*All Fields Required

Add

Discard

Room #	Chemical Name	Container Size (include units)	Manufacturer
Person Filling Form	Faculty Owner	Date	Hazards <input type="checkbox"/> Flammable <input type="checkbox"/> Corrosive <input type="checkbox"/> Peroxide <input type="checkbox"/> Carcinogen

Add

Discard

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**School of Packaging  
Laboratory Checkout Form**

**Either Part A or Part B must be completed before students will be certified for graduation.**

**Part A**

**I hereby certify that I have properly disposed of all experimental materials I have acquired or used, or that I have arranged with my major professor for them to be handled appropriately. All chemicals/materials that I have acquired and/or used have been disposed of or stored in accordance with University policies and regulations.**

**Name (please print):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Name of Major Professor:** \_\_\_\_\_

**I hereby certify that the student named above has properly disposed of all his/her experimental materials or other appropriate arrangements have been made for them. All chemicals/materials that were acquired and/or used have been disposed of or stored in accordance with University policies and regulations.**

**Signature of major professor:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Part B**

**I hereby certify that no experimental materials or samples were used for my project, thesis, or dissertation.**

**Name (please print):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Name of Major Professor:** \_\_\_\_\_

**I hereby certify that no experimental materials or samples were used for this student's project, thesis, or dissertation.**

**Signature of major professor:** \_\_\_\_\_

**Date:** \_\_\_\_\_



**AUTHORIZATION TO INVOICE MSU**

MICHIGAN STATE UNIVERSITY  
 HUMAN RESOURCES  
 WORKERS' COMPENSATION  
 1407 S. HARRISON STE 110  
 EAST LANSING, MI 48823  
 PHONE:517-353-4434 FAX: 517-432-4102

FACILITIES: LANSING URGENT CARE*		EMERGENCY FACILITY*
<b>Frondor</b> 505 North Clippert Street Lansing, MI 48912  <b>Dewitt</b> 12970 US Hwy 27 DeWitt, MI 48820  <b>Okemos</b> 2289 Grand River Okemos, MI 48864	<b>Southside</b> 320 E. Jolly Road Lansing, MI 48910  <b>Westside</b> 4440 West Saginaw Lansing, MI 48917  <b>Bath</b> 16945 Marsh Rd Haslett, MI 48840	<b>SPARROW HOSPITAL ER</b> 1215 E Michigan Avenue Lansing MI 48909 517-364-4141  1. Use this facility for any potentially life-threatening emergency.  2. All follow-up visits must be at a Lansing Urgent Care facility.
<b>Frondor Location – Open 24 hours a day /7 days a week</b>  <b>All other locations: Mon-Sat 9am-9pm; Sun 9am-6pm</b>		

- COMMERCIAL DRIVERS NEEDING POST ACCIDENT BREATH ALCOHOL TESTING AND URINE DRUG SCREENS EVENINGS AND WEEKENDS CAN GO TO ANY LANSING URGENT CARE FACILITY

1. \_\_\_\_\_ IS AUTHORIZED TO RECEIVE MEDICAL TESTS AND TREATMENT WITH PAYMENT OF SERVICES TO BE PROVIDED BY MICHIGAN STATE UNIVERSITY IF THE SERVICES ARE FOR A WORK RELATED INJURY.

2.

\_\_\_\_\_  
 (Authorized Signature) (Supervisor email) (Date) (Work Phone)

\_\_\_\_\_  
 (Printed Supervisor Name) (Department) (Department Address) (Fax Number)

3. DATE OF INJURY \_\_\_\_\_

4. DESCRIBE INJURY \_\_\_\_\_

5. CURRENT SHIFT/HOURS \_\_\_\_\_

6. IS THIS EMPLOYEE DOT CERTIFIED? Yes  No

7. IS THIS VISIT THE RESULT OF A NEEDLESTICK INJURY OR BODY FLUID EXPOSURE? Yes  No

8. EMPLOYEE'S JOB TITLE OR CLASSIFICATION \_\_\_\_\_

Job involves:	Yes	No	Percentage of Time
Lifting (in lbs)	<input type="checkbox"/>	<input type="checkbox"/>	_____
Sitting	<input type="checkbox"/>	<input type="checkbox"/>	_____
Standing	<input type="checkbox"/>	<input type="checkbox"/>	_____
Walking	<input type="checkbox"/>	<input type="checkbox"/>	_____
Operating Machinery	<input type="checkbox"/>	<input type="checkbox"/>	_____
Working from Heights	<input type="checkbox"/>	<input type="checkbox"/>	_____

9. PRESCRIPTION TO BE FILLED AT MSU CLINICAL CENTER OR CLIN HEALTH CENTER

10. FAX AFTER HOURS OR OVERNIGHT REPORTS TO LANSING URGENT CARE AT 517-492-2090

11. **THIS AUTHORIZATION WILL REMAIN IN EFFECT UNTIL REVOKED BY MSU IN WRITING. ALL PATIENTS ARE REQUIRED TO SHOW A PICTURE I.D. AT THE TIME OF REGISTRATION TO VERIFY IDENTITY.**

\* If transportation is needed, please call Capitol Transport at 517-485-4400.

Updated: June 2016

# MICHIGAN STATE UNIVERSITY

Workers' Compensation  
 1407 S. Harrison, Ste. 140  
 East Lansing, MI 48823  
 353-4434

## REPORT OF CLAIMED OCCUPATIONAL INJURY OR ILLNESS

**NOTE: COMPLETE ENTIRE FORM**

- Notify **Public Safety** of accidents requiring **IMMEDIATE** investigation (355-2221)
- **SEND AUTHORIZATION (TO INVOICE MSU) WITH EMPLOYEE, EXCEPT IN EXTREME EMERGENCY**
- Forward copies within 24 hours of accident for **MIOSHA** compliance
- Please **print** or **type** this form. If completing on the web, use the **tab key** to move to each field.

Name of Claimant: _____ <i>(Last, First and MI)</i>	Soc. Sec. Number #: _____ <i>(9-digits only)</i>
Local/Home Address: _____ <i>(Number and Street, City, State and Zip)</i>	Z-PID #: _____
Date of Birth: _____ <i>(MM/DD/YY)</i>	Male <input type="checkbox"/> Female <input type="checkbox"/>
<b>Date &amp; time</b> of claimed event: _____ <i>(MM/DD/YY, 9:15 a.m.)</i>	Student #: _____
Time employee began work: _____	
Day of Week: _____	
What was the employee doing just before the incident occurred? Describe the activity, as well as the tools, equipment, or materials the employee was using. Be specific:	
Describe the events that caused the claimed injury/illness:	

Union Affiliation: _____ <i>(If none, so state)</i>	Department Name: _____	Department Code (8-digit #): _____
Job Title or Classification: _____	Years on Present Job: _____	University Address: _____
MSU Employment Date: _____	Supervisor: _____	Telephone: _____

Where did claimed injury/illness occur? *(Check one)*

On-campus Near or in what building? \_\_\_\_\_

Off-campus/on MSU Property: Address: \_\_\_\_\_

Off-campus/on University Business: City \_\_\_\_\_ County \_\_\_\_\_ State \_\_\_\_\_

Describe claimed injury/illness (BE SPECIFIC, i.e. sprain, strain, body part):

Witness name and department or address: \_\_\_\_\_

Was there Medical Treatment?  Yes  No Blood clean-up required?  Yes  No

First Medical Treatment (Date): \_\_\_\_\_ Place of Treatment (Name): \_\_\_\_\_ Hospitalized:  Yes  No

Death:  Yes  No

*(MM/DD/YY)*

**To the best of my knowledge these statements are correct and I have received a copy of this report.**

Employee Signature \_\_\_\_\_ Date: \_\_\_\_\_

Preventative action to be taken: _____	Number of days employee will be assigned to alternate work duties: _____
Department account number employee is paid from: _____	
DEPARTMENT SIGNATURES: _____	
Supervisor: _____	Department Chair: _____
Date	Date
<b>Note: If employee is unable to work on any day following date of injury/illness, due to claimed injury/illness report lost time and return to work date on injury absence report (#140-2513)</b>	

**DISTRIBUTION:** Original to Workers' Compensation; 1 copy to each of the following: Department and Employee

(Revised 01/11)

# MICHIGAN STATE UNIVERSITY

## INJURY/PROPERTY DAMAGE REPORT

Office of Risk Management & Insurance

Olds Hall

408 W. Circle Drive Rm 113

East Lansing, MI 48824

Phone (517) 355-5022

Fax (517) 432-3854

E-mail: riskmgmt@msu.edu

Please PRINT or TYPE

THIS FORM IS A CONFIDENTIAL – INTERNAL DOCUMENT TO BE COMPLETED BY MSU EMPLOYEE

<b>TIME &amp; PLACE</b>	Date/Time of Incident	Location: Street, City, MSU Bldg. Rm #		
<b>PREMISES CONDITION</b>	<b>Type of Premises</b>		<b>Conditions</b>	
	<input type="checkbox"/> Construction Site	<input type="checkbox"/> Parking Lot	<input type="checkbox"/> Dry	<input type="checkbox"/> Uneven Surface
	<input type="checkbox"/> Hallway	<input type="checkbox"/> Sidewalk	<input type="checkbox"/> Icy	<input type="checkbox"/> Other:
	<input type="checkbox"/> Lobby/Entrance	<input type="checkbox"/> Stairway	<input type="checkbox"/> Snowy	
	<input type="checkbox"/> Office	<input type="checkbox"/> Street	<input type="checkbox"/> Wet	
	<input type="checkbox"/> Other:			
				Reported to Police Dept.:
				Report Number:
				<input type="checkbox"/> Not Reported
<b>INCIDENT DESCRIPTION</b>	DESCRIBE WHAT HAPPENED:			
<b>INJURED PERSON</b>	NAME	AGE	PHONE #	
	ADDRESS			
<b>DESCRIPTION OF INJURY</b>	INJURY - Describe the type, severity, and body part involved			
	Was Medical Treatment Given? Yes <input type="checkbox"/> No <input type="checkbox"/> Will seek treatment later <input type="checkbox"/>			
	Name of Medical Facility/Doctor		<input type="checkbox"/> Transported by Ambulance	
		<input type="checkbox"/> Transported by Other:		
<b>PROPERTY DAMAGE</b>	OWNER'S NAME	ADDRESS	PHONE #	
	Describe the property and the damage			Estimated Repair/Replacement Cost
<b>WITNESSES GIVE THE FULL NAME &amp; ADDRESS OF EACH WITNESS</b>	NAME	ADDRESS	PHONE#	
NAME/TITLE OF MSU EMPLOYEE COMPLETING THIS REPORT:				
			PHONE:	E-MAIL:
MSU DEPARTMENT:				
			DATE :	
NAME/TITLE OF MSU EMPLOYEE'S SUPERVISOR:				
			PHONE:	E-MAIL:
SUPERVISOR'S SIGNATURE:				