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# P. 19 Part II

### 2.8 Green Chemistry

### **New Wording**

12 Principles of Green Chemistry:

1. Prevent waste: Design chemical syntheses to prevent waste. Leave no hazardous or toxic waste.

### **Old Wording**

12 Principles of Green Chemistry:

1. Prevent waste: Design chemical syntheses to prevent waste. Leave no waste to treat or clean up.

# P. 20 Part II

### 3.1. Preliminary Steps and Procedures

### **New Wording**

For very toxic or hazardous substances, or specialized practices, consideration must be given to whether additional consultation with safety professionals and development of Lab Specific SOPs is warranted or required. EHS or the EHS Coordinators/Chemical Hygiene Officer may decide if the lab should develop additional SOPs for PHSs.

### **Old Wording**

For very toxic or hazardous substances, or specialized practices, consideration must be given to whether additional consultation with safety professionals and development of Lab Specific SOPs is warranted or required.

# P. 21 Part II

### 3.1. Preliminary Steps and Procedures

# Step 3B: Personal Protective Equipment for Eyes and Skin

### **New Wording**

Wear appropriate clothing when in the laboratory. The minimum requirements that apply to any spaces that fall under this DLC CHP are outlined in the table below. Note that specific labs or DLCs may have stricter requirements. In some cases, through a hazard assessment, laboratory supervisors may identify situations (a task, experiment, or area) where alternative or more

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protective apparel must be worn. Refer to section 4 and to <u>https://ehs.mit.edu/workplace-safety-program/personal-protective-equipment/</u> for more detailed information on PPE assessments, selection and use.

	Activity			
<mark>Minimum</mark> Requirements	<mark>Brief lab visit</mark> or walk- through*	Not Working With or Nearby to Chemicals, BL2 Materials, or Radioactive Materials **	Working With or Nearby to Chemicals, BL2 Materials, or Radioactive Materials***	Details
Shoes that fully cover the feet.	Required	Required	Required	<ul> <li>Never wear open toe or open heel shoes such as flip-flops or sandals.</li> <li>High heeled shoes or flats that leave the top of the foot exposed should not be worn.</li> <li>Shoes made of porous materials such as mesh or fabric provide only limited protection in a spill and should be avoided when working with materials that can become a spill hazard.</li> </ul>
Clothing that covers the legs	Recommended	Required	Required	<ul> <li>When required, the combination of shoes and clothing must provide full coverage of feet and legs.</li> <li>Thin or tight leg coverings, such as tights, should be avoided when working with materials that can become a spill hazard.</li> <li>Synthetic materials such as spandex, nylon, and polyester can melt to the skin when heated and should not be worn</li> </ul>

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				when there is a significant fire hazard.
Lab coat	Recommended; DLC/Lab Dependent	Recommended; DLC/Lab Dependent	Required	<ul> <li>Lab coat material should be chosen based on a hazard assessment.</li> <li>Flame resistant lab coats are required when handling pyrophoric materials.</li> <li>Comparable protective measures may be used in place of a lab coat depending on special research needs. These alternatives must be reviewed with the DLC EHS Coordinator.</li> </ul>
Gloves			DLC/Lab/Activity Dependent	<ul> <li>Appropriate gloves chosen based on hazards and compatibility.</li> </ul>
Eye protection and other PPE	DLC/Lab Dependent	DLC/Lab Dependent	DLC/Lab/Activity Dependent	<ul> <li>Eyewear requirements based on DLC/lab policies and hazard assessments.</li> <li>Other PPE may be required depending on PPE hazard assessment for the lab or DLC.</li> </ul>

\* This category includes people that will only be in a lab space briefly, including but not limited to delivery personnel, MIT students and employees going through a space but not stopping to work, and tour participants. Visitors will not spend time observing or standing near areas where active work with chemicals, biologicals, radioactive materials, lasers, or other potential hazards are being used.

\*\* This category includes but is not limited to those at desks or office areas within labs that are away from active work areas and those that are using equipment where there are no chemicals or other hazards.

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\*\*\* This category includes those working with hazardous materials as well as those working nearby to those materials where there is an expected risk of exposure. People working at desks may fall under this category depending on the activities happening around the desk. Ultimately it is the responsibility of the PI to assess the hazards around desk areas and determine if lab coats or other PPE are required due to the proximity of hazardous materials or processes.

### Table Instructions:

DLC EHS Coordinator and/or CHO should enter any DLC-specific PPE requirements in the table above. DLC-specific requirements must be at least as stringent as the requirements listed in the table.

A combination of clothing and shoes that fully cover the legs and feet is required when working in spaces that have hazardous chemicals, which includes almost all lab spaces. Similarly, there are requirements to have the legs covered in spaces with other hazards that could pose a risk to individuals, such as physical hazards or biological and radioactive materials that pose an exposure risk. Individuals briefly visiting a space are exempt from this requirement if they are not near hazardous materials.

(Insert DLC name) has an exemption process for low-risk rooms or areas within rooms where less stringent clothing requirements may be acceptable based on a hazard assessment. Requests must be made by the PI or Supervisor in charge of the area in writing and are reviewed by (insert the role(s) of the person(s) that review and approve). In shared spaces all PIs and/or Supervisors that oversee the space must be included in the request.

Approved exemptions are documented by (insert DLC Name) and the EHS Office and reviewed if hazards in the space change. Information on clothing requirements is to be included in the lab specific training given to the users of each space where an exemption has been granted.

### Exemption Instructions:

The CHP template wording regarding clothing exemptions must be modified when incorporated into DLC-specific CHPs to reflect how this will be implemented within the DLC. If exemptions will not be allowed in the DLC remove the CHP template language mentioning the exemption process. Refer to the "Clothing Exemptions – Guiding Principles" document at <u>https://ehs.mit.edu/chemical-safety-program/chemical-hygiene/</u> for guidance on setting up a DLC exemption process.

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Avoid skin contact and ingestion of hazardous substances by using appropriate hand protection, protective clothing, and proper work practices.

Contact with the skin is a frequent mode of chemical injury. A common result of skin contact is localized irritation, but an appreciable number of hazardous substances are absorbed through the skin with sufficient rapidity to produce systemic poisoning. Ingestion of substances is rarely deliberate, but may occur because of contamination of hands handling food, contamination of common work surfaces in the lab, and incidental contamination of food or materials that come in contact with the mouth, and through poor work practices. Avoid contact with, and ingestion of, hazardous substances by taking the following precautions:

Select and wear appropriate hand protection, generally gloves, to prevent injury to hands or exposure by absorption of chemicals through the skin of the hands. See details on glove selection in Section 4.

### **Old Wording**

Wear appropriate clothing when in the laboratory where there are hazardous substances. Wear appropriate clothing in the laboratory. Wear shoes that cover your feet. Never wear open toe or open heel shoes such as flip-flops, sandals, clogs or Crocs. High heeled shoes or flats should not be worn in the lab. Shoes made of porous material provide only limited protection in a spill and should be avoided. Wear clothing that fully covers your legs and arms when handling hazardous chemicals. As noted in 4.1 below: At a minimum, a laboratory coat or equivalent protective clothing is required for work with hazardous chemicals, unsealed radioactive materials, and biological agents at BL2 or greater (see <a href="https://ehs.mit.edu/workplace-safety-program/personal-protective-equipment/">https://ehs.mit.edu/workplace-safety-program/personal-protective-equipment/</a>). In some cases, through a hazard assessment, laboratory supervisors may identify situations (a task, experiment, or area) where alternative or more protective apparel must be worn.

Avoid skin contact and ingestion of hazardous substances by using appropriate hand protection, protective clothing, and proper work practices.

Contact with the skin is a frequent mode of chemical injury. A common result of skin contact is localized irritation, but an appreciable number of hazardous substances are absorbed through the skin with sufficient rapidity to produce systemic poisoning. Ingestion of substances is rarely deliberate, but may occur because of contamination of hands handling food, contamination of common work surfaces in the lab, and incidental contamination of food or materials that come in contact with the mouth, and through poor work practices. Avoid contact with, and ingestion of, hazardous substances by taking the following precautions:

Select and wear appropriate hand protection, generally gloves, to prevent injury to hands or exposure by absorption of chemicals through the skin of the hands. Gloves for work with chemicals must be selected based on the potential contact hazard, and the permeability of the glove material. For incidental skin contact with small amounts of chemicals on a surface, or work with most powders, disposable nitrile gloves are usually adequate. For work involving materials that

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are readily absorbed through the skin, the glove must be carefully selected using glove impermeability charts. Silver Shield brand gloves work well for many common laboratory chemicals that can be absorbed through the skin, but you should verify their effectiveness for your application. You should also evaluate need for hand protection from physical hazards such as extreme heat or cold, and make sure you use appropriate gloves.

# P. 26 Part II

3.2.2 Attend to housekeeping by establishing and following routine cleaning procedures as part of the work you do.

### **New Wording**

Maintain ready access to exits, safety equipment such as fire extinguishers, eyewashes, and safety showers and electrical panels. Do not store materials in a way that will block access to exits, safety equipment or electrical panels. Maintain a minimum clearance of 36 inches in aisles between work benches and 44 inches in the main cross aisle of the lab that leads to the lab exit door. The main cross aisle is the aisle that all of the bench aisles intersect with to allow the occupants to follow the egress path to the exit door.

### **Old Wording**

Maintain ready access to exits, safety equipment such as fire extinguishers, eyewashes, and safety showers and electrical panels. Do not store materials in a way that will block access to exits, safety equipment or electrical panels. Maintain a clearance of 36 inches in bays inside the lab and 44 inches in the building corridors.

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# P. 34 Part II

# 3.5 Special Precautions for Work with Hydrofluoric Acid

## **New Wording**

In case of:

- □ Large area of skin exposure (greater than the palm of the hand) and the HF concentration is greater than 5%
- □ Eye exposure
- Inhalation exposure
- Ingestion

Immediately call 100 or 617-253-1212, ask for Advanced Life Support (ALS) Ambulance, follow appropriate irrigation protocol and go directly to the hospital via ALS Ambulance.

All employees are required to be trained by the EHS Office before beginning work with HF. The training covers safe use, personal protective equipment, and decontamination procedures. The training can be taken on the web or in the classroom. Please go to the EHS Training website (<u>https://ehs.mit.edu/training/</u>) to update training profile, select "Use or work in the area that store or uses hydrofluoric acid" and complete for the training.

All laboratories using HF must have unexpired calcium gluconate decontamination gel on hand. The gel can be obtained at no cost from the EHS Office by submitting request in Hydrofluoric Acid section on this website https://ehs.mit.edu/chemical-safety-program/chemicals/.

# **Old Wording**

In case of:

- □ Large area of skin exposure (greater than the palm of the hand) and the HF concentration is greater than 5%
- □ Eye exposure
- Inhalation exposure
- Ingestion

Immediately call 100 or 617-253-1212, ask for Advanced Life Support (ALS) Ambulance, follow appropriate irrigation protocol and go directly to the hospital.

All employees are required to be trained by the EHS Office before beginning work with HF. The training covers safe use, personal protective equipment, and decontamination procedures. The training can be taken on the web or in the classroom. Please go to the EHS Training website (<u>https://ehs.mit.edu/training/</u>) to register for the training. All laboratories using HF must have unexpired calcium gluconate decontamination gel on hand. The gel can be obtained at no cost from the EHS Office at 617-452-3477.

# P. 35 Part II

### 3.8 Special Precautions for Work with Cyanide Salts and Compounds

2022 template and this document can be found here <u>https://ehs.mit.edu/chemical-safety-program/chemical-hygiene/</u>



### **New Wording**

Cyanides have a white crystalline or granular powder appearance and the dry salts are odorless but the reaction with atmospheric moisture may produce hydrogen cyanide which has a faint odor of bitter almonds. They are slightly soluble in water and when mixed with acids will produce lethal hydrogen cyanide gas. Cyanides are used in chemical synthesis and electroplating. A hazard assessment should be done addressing safe work practices, emergency procedures, roles and responsibilities and training prior to work.

Emergency procedures for cyanide exposure (see also Part IV section 3.4): For a medical emergency and treatment for a confirmed or suspected cyanide exposure we rely on emergency responders by dialing 100 or 617-253-1212 immediately to reach MIT Campus Police. When calling, it is critical to state that it is a potential cyanide exposure and to request a Cambridge Fire Dept. Paramedic Company ambulance service equipped with a CYANOKIT for first aid treatment of cyanide poisoning (See Laboratory Use of Cyanide Salts guidance https://ehs.mit.edu/chemical-safety-program/chemicals/).

### **Old Wording**

Cyanides have a white crystalline or granular powder appearance and the dry salts are odorless but the reaction with atmospheric moisture may produce hydrogen cyanide which has a faint odor of bitter almonds. They are slightly soluble in water and when mixed with acids will produce lethal hydrogen cyanide gas. Cyanides are used in chemical synthesis and electroplating. A hazard assessment should be done addressing safe work practices, emergency procedures, roles and responsibilities and training prior to work. Please review "Laboratory Use of Cyanide Salts Safety Guidelines" <u>https://ehs.mit.edu/chemical-safety-program/chemicals/</u>

### P. 36 Part II

### 4. PERSONAL PROTECTIVE EQUIPMENT

### New Wording and Section Titles

Personal protective equipment (PPE), to include eye and face protection, gloves, protective clothing, head protection, hearing protection, protective footwear, and respiratory protection may be needed to ensure an employee is adequately protected from hazards associated with the work they are doing. Refer to the table in Section 3.1 for an overview of PPE and clothing requirements in labs.

### 4.1 PPE Hazard Assessments

When personal protective equipment is needed, it is required by regulation that a hazard assessment be made to identify the specific hazards of concern and the PPE required for protection from those hazards. This hazard assessment may be done for a work area, or for a specific experiment, job, or task. The protective equipment is selected based on the hazard assessment. This assessment needs to be documented in writing. This hazard assessment and

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https://ehs.mit.edu/chemical-safety-program/chemical-hygiene/

documentation requirement would be satisfied through the application of the standard operating procedures outlined in this Chemical Hygiene Plan, namely Part II. Section 3. or through the development of additional Lab Specific SOPs in Part III., except for the use of respiratory protective equipment. If you believe respiratory protection is warranted, you must first contact the Environment, Health and Safety (EHS) Office for a consultation. For more information on PPE, visit the EHS Office website at

https://ehs.mit.edu/workplace-safety-program/personal-protective-equipment/

### 4.2 Laboratory coats

The MIT Committee on Toxic Chemicals and the Institute EHS Council has established the following policy with respect to laboratory coats. A laboratory coat or equivalent protection is required when working with or when working nearby to hazardous chemicals, unsealed radioactive materials, and biological agents at BL2 or greater. A flame resistant lab coat is required when handling pyrophoric substances outside of a glove box. It is recommended that a flame resistant lab coat be worn when working with all flammable chemicals. Laboratory supervisors shall carry out a hazard assessment to identify situations (a task, experiment, or area) where alternative or more protective apparel must be worn.

The EHS website <u>https://ehs.mit.edu/workplace-safety-program/personal-protective-equipment/</u> provides additional details to aid in the process of performing a hazard assessment to select an appropriate lab coat based on the hazards in the lab area, and provides information on the use and care of lab coats, including laundry service options.

### 4.3 Gloves

Gloves for work with chemicals must be selected based on the potential contact hazard, and the permeability of the glove material. For incidental skin contact with small amounts of chemicals on a surface, or work with most powders, disposable nitrile gloves are usually adequate. For work involving materials that are readily absorbed through the skin, the glove must be carefully selected using glove impermeability charts. Silver Shield brand gloves work well for many common laboratory chemicals that can be absorbed through the skin, but you should verify their effectiveness for your application. You should also evaluate need for hand protection from physical hazards such as extreme heat or cold, and make sure you use appropriate gloves.

### 4.4 Eye Protection

The Committee on Toxic Chemicals established a policy in 2009 to assure special emphasis is placed on the use of appropriate eye protection for work with hazardous chemicals in laboratories.

2022 template and this document can be found here <a href="https://ehs.mit.edu/chemical-safety-program/chemical-hygiene/">https://ehs.mit.edu/chemical-safety-program/chemical-hygiene/</a>



# Old Wording

Personal protective equipment (PPE), to include eye and face protection, gloves, protective clothing, head protection, hearing protection, protective footwear, and respiratory protection may be needed to ensure an employee is adequately protected from hazards associated with the work they are doing. When personal protective equipment is needed, it is required by regulation that a hazard assessment be made to identify the specific hazards of concern and the PPE required for protection from those hazards. This hazard assessment may be done for a work area, or for a specific experiment, job, or task. The protective equipment is selected based on the hazard assessment. This assessment needs to be documented in writing. This hazard assessment and documentation requirement would be satisfied through the application of the standard operating procedures outlined in this Chemical Hygiene Plan, namely Part II. Section 3. or through the development of additional Lab Specific SOPs in Part III., except for the use of respiratory protective equipment. If you believe respiratory protection is warranted, you must first contact the Environment, Health and Safety (EHS) Office for a consultation. For more information on PPE, visit the EHS Office website at

https://ehs.mit.edu/workplace-safety-program/personal-protective-equipment/

<u>Laboratory coats</u>. The MIT Committee on Toxic Chemicals and the Institute EHS Council has established the following policy with respect to laboratory coats. A laboratory coat or equivalent protection is required when working with or when working nearby to hazardous chemicals, unsealed radioactive materials, and biological agents at BL2 or greater. A flame resistant lab coat is required when handling pyrophoric substances outside of a glove box. It is recommended that a flame resistant lab coat be worn when working with all flammable chemicals. Laboratory supervisors shall carry out a hazard assessment to identify situations (a task, experiment, or area) where alternative or more protective apparel must be worn.

4.1 EHS website <u>https://ehs.mit.edu/workplace-safety-program/personal-protective-equipment/</u> provides additional details to aid in the process of performing a hazard assessment to select an appropriate lab coat based on the hazards in the lab area, and provides information on the use and care of lab coats, including laundry service options.
 Eye Protection: The Committee on Toxic Chemicals established a policy in 2009 to assure special emphasis is placed on the use of appropriate eye protection for work with hazardous chemicals in laboratories.

# P. 41 Part II

# **New Wording**

5.4 Electrical Safety and Lockout/tagout Considerations



- High amperage or heat producing equipment (ovens, refrigerators, hot plates, heaters, etc.) should be plugged directly into a wall outlet and not into a power strip or extension cord.
- Contact EHS if you need assistance reviewing any modified or researcher build lab equipment. More complicated equipment may require an external consultant to assist with this review.
- When working on equipment maintenance or removing guards, control of any hazardous energies is essential for personnel safety. Follow <u>OSHA 1910.147</u> requirements for locking and tagging of these energy sources. There are three main components to a successful program;
  - Training for authorized and affected personnel
  - Written Energy Control Procedures (ECPs)
  - Periodic Program Inspection

For more information go the EHS LOTO Webpage https://ehs.mit.edu/workplace-safetyprogram/loto/

When all energy sources cannot be isolated from equipment by unplugging during maintenance or other activities, lab personnel shall contact DOF to have the electrical or other source of energy/pressure mitigated and locked out.

# **Old Wording**

### 5.4 Electrical Safety and Lockout/tagout Considerations

- High amperage or heat producing equipment (ovens, refrigerators, hot plates, heaters, etc.) shall be plugged directly into a wall outlet and not into a power strip or extension cord.
- Contact EHS for assistance reviewing any modified or researcher build lab equipment. More complicated equipment may require an external consultant to assist with this review.
- When working on equipment maintenance or removing guards, control of any hazardous energies is essential for personnel safety. Follow <u>OSHA 1910.147</u> requirements for locking and tagging of these energy sources. There are three main components to a successful program;
  - o Training for authorized and affected personnel
  - Written Energy Control Procedures (ECPs)
  - Periodic Program Inspection
- When all energy sources cannot be isolated from equipment by unplugging during maintenance or other activities, lab personnel should contact DOF to have the electrical or other source of energy/pressure be mitigated and locked out by DOF.

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# P. 42 Part II

8.3.1.B Containers and Labeling

## **New Wording**

The hazardous waste labels are available from the EHS Office Environmental Management Program (617-452-3477 or https://ehs.mit.edu/regulated-waste-program/chemical-waste/)

# **Old Wording**

The hazardous waste labels are available from the EHS Office Environmental Management Program (617-452-3477 or <u>https://mit.quickbase.com/db/bms438qt8?a=nwr</u>

# P. 43 Part II

8.3.2.A Accumulation & Storage

### **New Wording**

Hazardous waste pick-up can be requested online at <u>https://ehs.mit.edu/regulated-waste-program/chemical-waste/</u> or by calling the Environmental Management Program (617-452-3477).

### **Old Wording**

Hazardous waste pick-up can be requested online at <u>https://mit.quickbase.com/db/bms438qt8?a=nwr</u> or by calling the Environmental Management Program (617-452-3477).

### P. 55 Part IV

### 2.1 Chemical Inventory and Security

### **New Wording and Section Title**

1. The MIT Committee on Toxic Chemicals has instituted a requirement to maintain an inventory of hazardous chemicals. Hazardous chemicals include chemicals for which there is statistically significant evidence of health effects following exposure as well as flammable and explosive substances. Although inventories can be kept using any type of electronic or non-electronic method, the use of MIT's centrally provided chemical inventory platform which is supported by EHS is strongly recommended. For more information please visit <a href="https://ehs.mit.edu/chemical-safety-program/chemical-inventory/">https://ehs.mit.edu/chemical-safety-program/chemical-inventory/</a> or by calling 2-3477. Your lab's inventory should be used to:

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- Manage the chemical purchases to reduce or completely eliminate unnecessary purchases. Prior to purchasing new chemicals, review your lab's current chemical inventory/search the shared inventory in the centralized system. When purchasing new chemicals, purchase minimum quantities necessary for your work. Less over-purchasing will lead to less chemical waste.
- Provide a list of applicable chemicals to EHS when requested to meet regulatory reporting requirements, such as MIT's annual SARA Inventory Reporting requirement see Part IV section 9.

### Old Wording

### 2.1 Laboratory and Chemical Security

1. Through the Committee on Toxic Chemicals it is a requirement to maintain a chemical inventory. Hazardous chemicals include chemicals for which there is statistically significant evidence of health effects following exposure as well as flammable and explosive substances. The use of MIT's centrally provided chemical inventory platform which is supported by EHS is strongly recommended. For more information please visit <u>https://ehs.mit.edu/chemical-safety-program/chemical-inventory/</u> or by calling 2-3477.

## P. 62 Part IV

### 7. OSHA HAZARD COMMUNICATION STANDARD (HAZCOM) New Wording

Note: Part I, 4 of this document, provides information on changes to the OSHA Hazard Communication Standard that took effect in Spring of 2012, adopting the International Global Harmonization System. This resulted in changes to Safety Data Sheets and chemical labels. Please review that section for more details.

The OSHA hazard communication program reflects the Global Harmonization System (GHS) for classification and labeling of chemicals. Based on OSHA requirements, chemical manufacturers must include the GHS labeling and SDS format for their products, see Appendix 10.2. These unique communication tools help lab members to understand the type of hazards quickly. The GHS labels include hazard pictograms, which are image conveying specific information about the hazards of a chemical, and a signal word, either "Danger" or "Warning." They have standardized language about hazards and precautions, emergency information, and contact information of the manufacturer or distributor.

Nine pictograms are designated for hazard categories under the OSHA. See Appendix 10.3.

### **Old Wording**

Note: Part I, 4 of this document, provides information on changes to OSHA Hazard Communication Standard in Spring of 2012, to adopt the International Global Harmonization



System, which will result in changes to Safety Data Sheets, and to chemical labels. Please review that section for more details.

# P. 64 Part IV

# 9. ANNUAL SARA III CHEMICAL INVENTORY REPORTING

### New Wording and Section Title

The Superfund Amendments and Reauthorization Act (SARA) Title III regulations were developed by the EPA to deal with the release of hazardous materials into the community, emergency response planning, and community right to know. A section of these regulations requires that all facilities in a community using hazardous chemicals report aggregate quantities greater than the "Threshold Planning Quantity" (TPQ) to local fire departments, the Local Emergency Planning Committee, and the Massachusetts State Department of Environmental Protection. The purpose is to give fire fighters and emergency responders information on what is inside a facility before an emergency occurs.

To comply with this regulation, MIT submits a chemical inventory each year by March 1 that covers both its facilities and laboratory operations. The Chemical Reporter in each laboratory receives a list of applicable chemicals in fall of each year. The quantity of each listed chemical on hand must be inventoried and reported back to the EHS Office. Chemical reporting MUST be done through Atlas or requesting EHS to submit the report for the lab. The EHS Office tabulates the aggregate quantities for the entire campus and reports total amounts and amounts by location to the required authorities. Note that most of the SARA Inventory chemicals are *particularly hazardous substances* (as defined by OSHA). The SARA Inventory Report includes only those chemicals that are in wide use on campus above aggregate TPQs and is most likely only a partial list of all the *particularly hazardous substances* that may be in use in a lab.

The lab is required to maintain a list of all *particularly hazardous substances* in use in their laboratories, including an inventory of the maximum quantity present at any given time. See Part II section 3.3.10. For more information please visit <u>https://ehs.mit.edu/chemical-safety-program/chemical-regulatory-reporting-security/</u>

### **Old Wording**

# 9. ANNUAL SARA III CHEMICAL INVENTORY

The Superfund Amendments and Reauthorization Act (SARA) Title III regulations were developed by the EPA to deal with the release of hazardous materials into the community, emergency response planning, and community right to know. A section of these regulations requires that all facilities in a community using hazardous chemicals report quantities greater than the "Threshold Planning Quantity" to local fire departments, the Local Emergency Planning

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Committee, and the Massachusetts State Department of Environmental Protection. The purpose is to give fire fighters and emergency responders information on what is inside a facility before an emergency occurs.

To comply with this regulation, MIT submits a chemical inventory each year on March 1 that covers both its facilities and laboratory operations. The EHS Representative in each laboratory receives a list of approximately 40 SARA Title III chemicals in December. The quantity of each SARA Title III chemical on hand must be inventoried and reported back to the EHS Office. The EHS Office tabulates the lab inventories for the entire campus and reports total amounts and amounts by location to the required authorities. Note that most of the SARA Inventory chemicals are *particularly hazardous substances* (as defined by OSHA). The SARA Inventory includes only those chemicals that are in wide use on campus and is most likely only a partial list of all the *particularly hazardous substances* that may be in use in a lab. A separate list of all *particularly hazardous substances* is recommended under the OSHA *Laboratory Standard* but does not require quantity information to be tabulated.