

**STEP 1 – Preliminary Approval from Leadership**

| Completed? | Form Required  | Instructions  | Signatures Required From                     |
|------------|--|---|--|
|            | <b>Exhibit B</b> - Request and Attestation of Granted Approvals for Sponsor's Invitation | Observer/sponsor signatures will be obtained by the Department – CMO/CNO approval will be obtained by the Office of Observership Credentialing. | Observer<br>Sponsor<br>CMO<br>CNO (optional) |

**STEP 2 – Application Submission**

*Applicant submits completed via Department or Electronic application to the Nursing Office of Credentialing.*

| Completed? | Form/Documents Required   | Instructions   | Signatures Required From         |
|------------|---|--|----------------------------------|
|            | <b>Exhibit C</b> – HIPAA Confidentiality and Non-Disclosure Statement | Completed by applicant   | Observer                         |
|            | <b>Exhibit D</b> – Immunization Verifying Documentation               | Completed by applicant   | Observer                         |
|            | <b>Exhibit E</b> – Health Screen                                      | Completed by applicant   | Observer                         |
|            | <b>Exhibit F</b> – Sponsor Supervision Agreement                      | Completed by sponsor   | Sponsor<br>Designated Supervisor |
|            | <b>Exhibit G</b> – Release of Waiver of Liability                     | Completed by sponsor   | Observer<br>Sponsor              |
|            | <b>Exhibit H</b> – Observership Code of Conduct                       | Emory Healthcare Pledge included for reference, not for submission.                              | Observer                         |
|            | <b>Exhibit I</b> – Observer Required Regulatory Courses               | Completed by applicant   | Observer                         |
|            | Government issued photo ID of observer                                | Passport or driver's license. Attestation form provided for Emory department designee to verify. | Observer<br>Designee             |
|            | <b>Exhibit J</b> – (Invasive Procedure Only) – HIPAA authorization    | Patient's signed consent to Observership (filed in patient's medical record)                     | Sponsor<br>Patient               |
|            | <b>Observership Credentialing Fee (\$150)</b>                         | Payable to Emory Healthcare via check, money order, credit card or department smart key          | Waived                           |

**STEP 3 – Final Approval Granted by the Office of Observership Credentialing**

The Office of Observership Credentialing will notify the observation site's Security Office to issue an Emory Healthcare photo ID badge. Observer picks up ID badge from Security Office on day of arrival. **(Applicants EHC and EU badge may not be used while observing.)**

Security Office Locations:

Emory University Hospital  
2<sup>nd</sup> floor, D wing, Room D-215  
Office: 404-712-5599

Emory University Hospital Midtown  
Orr Building, 1<sup>st</sup> floor  
Office: 404-686-4485

Emory Saint Joseph's Hospital  
5665 Peachtree Dunwoody  
Office: 678-843-7568



**EXHIBIT B**  
**Request and Attestation of Granted Initial Approvals for**  
**Observership**

*This document is a preliminary approval of the invitation only to be completed a month in advance of the start date. Following this approval, other requirements must be submitted to the Office of Observership Credentialing prior to the final authorization, start date, and badge distribution.*

Applicant Name: \_\_\_\_\_

Date of Birth: \_\_\_\_\_ Age at time of Observership: \_\_\_\_\_

Home Address: \_\_\_\_\_

Home/Cell Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Name of School/College: \_\_\_\_\_

**Purpose and Goal of Observership** (please write 1-5 sentences):

Sponsor: \_\_\_\_\_

Observation Site: \_\_\_\_\_

Observation Period: Start: \_\_\_\_\_ End: \_\_\_\_\_

NOTE: Clinical and non-clinical authorizations for an observership must be linked to an affiliation with an EHC Executive or Medical Staff Member with active, Emory clinical privileges. If not linked with a physician, the sponsoring affiliation may also be with a professor or clinical researcher from Emory University School of Medicine or Emory's Nell Hodgson Woodruff School of Nursing with approved, Emory clinical access.

**The following individuals must print, sign, and date, signifying the Observer is APPROVED to begin the application process:**

*Any requested exceptions to the policy herein must be noted on this sheet and approved by the parties listed below.*

|   |                     |             |
|---|---------------------|-------------|
| Observer:   | _____               | Date: _____ |
|   | (Print) (Signature) |             |
| Sponsor:  | _____               | Date: _____ |
|   | (Print) (Signature) |             |
| Dept. Chair/Chief of Service<br>or Designee:      | _____               | Date: _____ |
|   | (Print) (Signature) |             |
| Site Chief Nursing Officer<br>(when appropriate): | _____               | Date: _____ |
|   | (Print) (Signature) |             |
| Site Chief Medical Officer:                       | _____               | Date: _____ |
|   | (Print) (Signature) |             |



**EXHIBIT C**  
**HIPAA Confidentiality and Non-Disclosure Statement**

I, \_\_\_\_\_, the Observer visiting Emory Healthcare, am aware of the Hospital's Regulations and Policies that are issued under the Health Insurance Portability and Accountability Act of 1996 (also known as the HIPAA Privacy Rule).

I understand that all patient information, including medical records, other medical information, billing and financial data, is confidential.

I agree to comply with all Hospital policies and procedures, including and without limitation to the Non-Staff Observer Handbook and the Privacy Policies and Procedures implementing the HIPAA Privacy Rule.

I understand that if I violate patient confidentiality by using or disclosing patient information improperly, I may be subject to disciplinary action including having my Observership immediately terminated and I may be held personally responsible.

I understand that if I have any questions or concerns about the Privacy Rule and/or the proper use or disclosure of patient information, I shall ask my supervising attending, the Hospital Privacy Officer, or the Hospital Compliance Officer.

I have read and understand Emory Healthcare's Privacy and Security Training Materials and signed the acknowledgement statement. I understand and agree that the Hospital Privacy Policies and Procedures will apply to all patient information even after my Observership has been completed.

I certify that I have read Emory's HIPAA Policy Regarding Confidentiality of Patient Health Information and have completed the associated Privacy and Security Regulatory Course, outlined on the Non-EHC Staff Regulatory Courses form provided herein.

I understand that no information about any patients I may observe or hear discussed while on the Observership or at any time thereafter may be transmitted to any third party or person via personal recording device, email, text message, posting on any social network or another online site, or via any other written or verbal communication. *\*Exceptions must be reviewed and approved through Legal, the CMO, and the respective sponsor.*

I understand that photography and videotaping are prohibited.

As a condition of my Observership, I agree to abide by the prohibition on discussing my Observership and agree that Emory Healthcare has the authority to terminate the Observership at any time in its sole discretion. I further agree to indemnify and defend Emory Healthcare and its affiliates for all damages or losses incurred related to my participation as an Observer.

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



## EXHIBIT D Immunity History

**Provide Verifying documentation for one option per category.**

### **I. Measles, Mumps, and Rubella (MMR)**

**Option A** Two live attenuated MMR vaccines Vaccine #1 \_\_\_\_\_ Vaccine #2 \_\_\_\_\_

**Option B** Proof of individual titers – attach titer document (Positive titers represent immunity)

**Rubeola** Titer Date \_\_\_\_\_

**Mumps** Titer Date \_\_\_\_\_

**Rubella** Titer Date \_\_\_\_\_

### **II. Tuberculosis (TST=PPD)**

**Option A** T-Spot Serology and/or QuantiFERON TB Gold Blood Test. The result must be current within 3 months of observership start date Last Serology Date \_\_\_\_\_

For Positive serology, provide documentation with a negative/clear chest x-ray report, treatment received, and a TB symptom questionnaire

**Option D** For history of bacilli Calmette-Guerin (BCG) vaccination: provide documentation of a T-Spot/QuantiFERON Gold Blood test result within 3 months of observership start date.

### **III. Varicella (Chicken Pox, VZV) Childhood history of disease is not sufficient.**

**Option A** (two live VZV vaccines) Varivax Date #1 \_\_\_\_\_ Varivax Date #2 \_\_\_\_\_

**Option B** VZV Serologies (attach titer documentation) VZV Titer Date \_\_\_\_\_  
Positive titer = immune, Negative titer = not immune (option A required)

### **IV. Hepatitis (HBV)**

**Option A** Hepatitis B Vaccination (provide documentation) (three (3) doses required or titers)

**Option B** Hepatitis B Surface Antibody (HBVSAB) Test Results (provide serology documentation)  
Serology Date \_\_\_\_\_ (positive=immune, negative=non-immune)

**Option C** Declination of Hepatitis Vaccination – After consultation with an Emory Healthcare Representative

**V. Annual Mandatory Flu Vaccine** (October-March) please submit influenza verification documentation or submit Emory Healthcare waiver signed by physician or religious leader.

***Immunization clearance is required prior to observing in Emory hospitals or clinics.***







**EXHIBIT G**  
**Release and Waiver of Liability**

I, \_\_\_\_\_, wish to observe the activities of the \_\_\_\_\_ service or department within Emory Healthcare, Inc. (EHC) from \_\_\_\_\_ to \_\_\_\_\_ in furtherance of my personal or educational goals (observership).

I understand that I will not be allowed to perform any clinical activities or other work, including without limitation the touching of any patient, documenting on any medical record, scrubbing in the EHC Operating Room or any other EHC procedural area, and advising of care providers or patients. I further understand that I will be under the supervision of attending physician \_\_\_\_\_ and agree to remain with the attending physician at all times during my Observership. I agree to adhere to the EHC policies and procedures.

I understand I am not to be involved in the provision of patient care at any time and will remain with my assigned sponsor at all times. I understand that my sponsor can ask me to leave the room at anytime without explanation. It is the expectation that all observers will leave during emergency situations.

I understand that I am not an employee, agent or contractor of Emory Healthcare and as such, I am not authorized to conduct any business on its behalf and am not entitled to receive payment or benefits from Emory Healthcare.

I understand that Emory Healthcare does not provide insurance coverage including, but not limited to, the following: professional medical malpractice, general liability, workers' compensation, or health insurance benefits. I understand that I am not an Emory employee and do not receive employee benefit. I concur that any injury that I may sustain in connection with my participation in the observership shall be covered by my personal medical insurance.

I understand that even though I will only be observing activities in the \_\_\_\_\_ clinical services I may be exposed to certain risk of bodily injury and other dangers, including but not limited to, exposure to blood born pathogens, biological waste, and dangerous chemicals. I am aware of these risks and voluntarily assume these risks. I release and agree to indemnify and defend EHC from all damages, liability or loss arising from any injury that I sustain related to my participation in the observership.

For and in consideration of EHC allowing me to observe the activities of the \_\_\_\_\_ services to further my professional and educational goals, I hereby release and forever discharge and agree to indemnify and defend EHC and it's parent and affiliate entities and their respective officers, agents and employees from all claims, losses, demands, rights and causes of action of whatever kind or nature arising out of my observership or observation activities, including but not limited to, those specific risks enumerated above. In addition, I understand and take sole responsibility for any personal belongings I bring with me to Emory.

I understand that EHC may terminate my observership: (i) at any time in its sole discretion; or (ii) if I violate the terms of this agreement or EHC Policies or Procedures.

I have read this document carefully and I voluntarily choose to participate in the observership activities described herein. I hereby certify that I am at least 18 years of age, I am legally competent, and I am signing this document with full knowledge of its significance.

\_\_\_\_\_  
Observer Name (print)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



**EXHIBIT H**  
**Code of Conduct**

When participating in the observership, I will...

- Arrive promptly
- Accurately represent my position and role
- Appreciate the limits of my role as an Observer
- Ensure patients give informed consent for shadowing freely and without undue influence
- Respect patients' right to refuse to have visitors present
- Treat all patients and staff with respect and dignity, regardless of age, gender, race, ethnicity, national origin, religion, disability, or sexual orientation
- Maintain strict confidentiality about patient information
- Maintain honesty and integrity by being forthright in my interactions with patients, peers, physician supervisors, and staff
- Ensure patient safety by remaining at home if I am ill
- Report concerns about patient safety to the appropriate individual
- Behave in an appropriate, professional, courteous manner at all times
- Not initiate or accept patients' invitations to engage in social relationships
- Dress and act professionally
- Not abuse drugs or alcohol
- Be aware of and follow the policies, procedures and guidelines of my sponsoring institution
- Wear the Observer's ID Badge at all times
- Maintain patient and employee confidentiality

I agree to follow the Code of Conduct described above and to adhere to Emory Healthcare's Pledge attached hereto

---

Observer Name (print)

---

Signature

---

Date





**Our Pledge**

|  |   |
|--|---|
| <p><b>We will treat each other the way we want to be treated.</b></p> <p>We will...</p> <ul style="list-style-type: none"> <li>• treat everyone as professionals and with respect and dignity</li> <li>• greet each other by name</li> <li>• welcome and encourage new team members</li> <li>• be honest and open in all interactions</li> <li>• be respectful of everyone's privacy</li> <li>• be culturally and racially sensitive</li> </ul> <p>We will not...</p> <ul style="list-style-type: none"> <li>• raise our voices in anger or use sarcasm or profanity</li> <li>• be passive-aggressive</li> <li>• make culturally or racially derogatory remarks</li> <li>• undermine each other's work</li> <li>• criticize each other and Emory in public spaces</li> </ul> <p><b>We will cultivate a spirit of inquiry.</b></p> <p>We will...</p> <ul style="list-style-type: none"> <li>• ask "why" when we have questions or concerns, especially about safety</li> <li>• ask for a pause when we think someone is about to make a mistake or do something unsafe</li> <li>• thank each other for raising concerns</li> <li>• declare our openness to the inquiry of others</li> </ul> <p>We will not ...</p> <ul style="list-style-type: none"> <li>• respond with anger or sarcasm when someone requests a pause</li> <li>• intentionally belittle or respond in a threatening or condescending manner when someone asks a question</li> <li>• tolerate rudeness</li> <li>• stifle learning</li> </ul> | <p><b>We will defer to each other's expertise.</b></p> <p>We will...</p> <ul style="list-style-type: none"> <li>• encourage each other to offer different perspectives</li> <li>• recognize that all members make important contributions to the team</li> <li>• seek help when we don't know the answer</li> </ul> <p>We will not ...</p> <ul style="list-style-type: none"> <li>• belittle or ignore the ideas and perspectives offered by each other</li> <li>• assume that expertise is overruled by age, profession, or rank</li> </ul> <p><b>We will communicate effectively.</b></p> <p>We will...</p> <ul style="list-style-type: none"> <li>• listen thoughtfully and ask for clarification when we don't understand</li> <li>• check that others have understood when we say something important</li> <li>• remain respectful with our body language and tone of voice</li> <li>• remain calm when confronted with or responding to stressful situations</li> <li>• use scripts, read-back, repeat-back, or other techniques where appropriate to reduce the chance of misunderstanding</li> </ul> <p>We will not ...</p> <ul style="list-style-type: none"> <li>• stifle clarifying questions</li> <li>• interrupt our team members unnecessarily</li> <li>• say "it's not my job" or "it's not my responsibility"</li> </ul> <p><b>We will commit to these behaviors in support of Emory Healthcare Care Transformation</b></p> <p>We will...</p> <ul style="list-style-type: none"> <li>• encourage and support each other</li> <li>• hold each other accountable for the behaviors identified in this Pledge</li> </ul> |
|--|---|



**EXHIBIT I**  
**Observer Required Regulatory Courses**

The following regulatory courses (found as an attachment to this page) must be reviewed by the applicant prior to the Observer's start date. After reading through the two applicable courses, the applicant must sign below, verifying that he/she has read, understands, and accepts accountability for complying with all material through the entirety of their time with Emory Healthcare.

Topics include, but are not limited to:

1. Hazard Communication
2. Standard Precautions

*Additional training for clinical areas may be required and will be specified prior to the individual's start date.  
The regulatory courses may be accessed by using the link below:*

I, \_\_\_\_\_, confirm that I have read all the required Regulatory Courses, as outlined above. I understand that I will be held accountable for complying with these rules, regulations, and practices, and am aware that any breach of rules may result in immediate termination of my visitation/Observership.

\_\_\_\_\_  
(Print) Observer Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

# EHC Hazard Communication

## 1. EHC Hazard Communication

### 1.1 Introduction: Lesson 1



**EHC Hazard Communication**

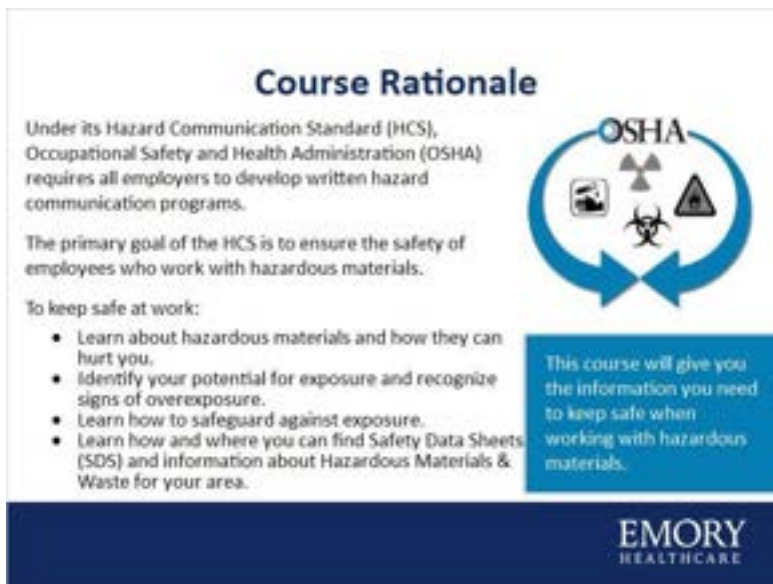
Splash Splatters Infectious Disease Contamination Exposure OSHA Asthma HIV SARS

Welcome to the introductory lesson on hazard communication.

EMORY HEALTHCARE

The slide features a central graphic with the OSHA logo and a group of healthcare workers. Surrounding the OSHA logo are terms related to hazardous materials: 'Splash', 'Splatters', 'Infectious Disease', 'Contamination', 'Exposure', 'Asthma', 'HIV', and 'SARS'. Below the graphic is a blue banner with the Emory Healthcare logo.

### 1.2 Course Rationale



**Course Rationale**

Under its Hazard Communication Standard (HCS), Occupational Safety and Health Administration (OSHA) requires all employers to develop written hazard communication programs.

The primary goal of the HCS is to ensure the safety of employees who work with hazardous materials.

To keep safe at work:

- Learn about hazardous materials and how they can hurt you.
- Identify your potential for exposure and recognize signs of overexposure.
- Learn how to safeguard against exposure.
- Learn how and where you can find Safety Data Sheets (SDS) and information about Hazardous Materials & Waste for your area.

This course will give you the information you need to keep safe when working with hazardous materials.

EMORY HEALTHCARE


The slide contains text explaining the course rationale, a list of learning objectives, and a blue callout box. To the right of the text is a circular graphic with the OSHA logo and three hazard symbols: a biohazard symbol, a radiation symbol, and a general hazard symbol. Below the graphic is a blue banner with the Emory Healthcare logo.

## 1.3 Course Goals

### Course Objectives

After completing this course, you should be able to:

- Define hazardous materials that include a description of why certain materials are hazardous to healthcare workers.
- Explain the requirements and how to interpret a chemical container label that will help ensure healthcare worker safety.
- Explain where you find Safety Data Sheets (SDS).
- Cite the importance of using personal protective equipment that can assist in improving healthcare worker safety.



## 1.4 Course Outline

### Course Outline

Lesson 1 provided the course rationale and goals.

Lesson 2 will focus on hazardous materials.


Lesson 3 will discuss safety data sheets.

Lesson 4 will cover labeling of hazardous materials.

Lesson 5 will discuss personal protective equipment.

#### Lesson Map

- Lesson 1: Introduction
- Lesson 2: Hazardous Materials
  - Physical hazards
  - Health hazards
  - Hazardous chemicals
- Lesson 3: Safety Data Sheets
  - Responsibilities
  - SDS Sections
- Lesson 4: Labelling of Hazardous Chemicals
  - Container labels
  - Hazard warnings
  - Symbols
- Lesson 5: Personal Protective Equipment
  - Purpose
  - Responsibilities
  - Types



## 1.5 Introduction: Lesson 2

### Introduction

Welcome to the lesson on hazardous materials.

This lesson will review:

- Physical and health hazards of chemicals.
- Potential routes of exposure to hazardous chemicals.
- The three different forms of hazardous chemicals.

Lesson Map

- ▶ Lesson 2: Hazardous Materials
  - ▶ Physical hazards
  - ▶ Health hazards
  - ▶ Hazardous chemicals

EMORY HEALTHCARE

## 1.6 What Makes a Chemical Hazardous?

### What Makes a Chemical Hazardous?

A chemical is hazardous if it is likely to cause harm.

Chemicals can have two types of hazards:

- Physical hazards
- Health hazards

References 1

Click on each type of hazard to learn more.

EMORY HEALTHCARE

## Physical hazards (Slide Layer)

### What Makes a Chemical Hazard?

A chemical is hazardous if it is likely to cause harm.

Chemicals can have two types of hazards:

- Physical hazards
- Health hazards

**Physical hazards** are related to the way that a chemical interacts with other substances or the environment. A chemical that is physically hazardous can harm you by:

- Exploding
- Igniting
- Reacting violently with other substances

References 1

Click on each type of hazard to learn more.

EMORY HEALTHCARE

## Health hazards (Slide Layer)

### What Makes a Chemical Hazard?

A chemical is hazardous if it is likely to cause harm.

Chemicals can have two types of hazards:

- Physical hazards
- Health hazards

**Health hazards** are related to the way that a chemical interacts with your body. If you are exposed to a chemical hazardous to human health, you could suffer:

- Death
- Long-term damage
- Short-term injury or illness

References 1

Click on each type of hazard to learn more.

EMORY HEALTHCARE

## 1.7 Physical Hazards: Examples


**Physical Hazards: Examples**

Examples of chemicals that are physical hazards include:

- ▶ Trinitrotoluene
- ▶ Compressed gas in a cylinder
- ▶ Isopropanol and other alcohols

References 2

Roll over each example for more information.



### Trinitrotoluene (Slide Layer)



**Physical Hazards: Examples**

Examples of chemicals that are physical hazards include:

- ▶ Trinitrotoluene
- ▶ Compressed gas in a cylinder
- ▶ Isopropanol and other alcohols

References 2

Roll over each example for more information.



Trinitrotoluene




## Compressed gas in a cylinder (Slide Layer)

**Physical Hazards: Examples**

Examples of chemicals that are physical hazards include:

- Trinitrotoluene
- Compressed gas in a cylinder
- Isopropanol and other alcohols

References 2



Compressed gas in a cylinder:  
Cylinders containing compressed gas can rupture and come off like projectiles.

Compressed gas in a cylinder

Roll over each example for more information.

**EMORY**  
HEALTHCARE


## Isopropanol and other alcohols (Slide Layer)

**Physical Hazards: Examples**

Examples of chemicals that are physical hazards include:

- Trinitrotoluene
- Compressed gas in a cylinder
- Isopropanol and other alcohols

References 2



Isopropanol and other alcohols:  
Alcohol and alcohol-based products can catch fire if exposed to heat or sparks.

Isopropanol and other alcohols

Roll over each example for more information.

**EMORY**  
HEALTHCARE



## 1.8 Health Hazards: Examples

### Health Hazards: Examples

Examples of chemicals that are health hazards include:

- Lead
- Mercury
- Formalin
- Glutaraldehyde



References 3-6

Click on each example to learn more.

EMORY HEALTHCARE

### Lead (Slide Layer)

### Health Hazards: Examples

Examples of chemicals that are health hazards include:

- Lead
- Mercury
- Formalin
- Glutaraldehyde



Exposure to lead can cause mental retardation in children.

References 3-6

Click on each example to learn more.

EMORY HEALTHCARE

## Mercury (Slide Layer)

### Health Hazards: Examples

Examples of chemicals that are health hazards include:

- Lead
- Mercury
- Formalin
- Glutaraldehyde

This chemical can cause brain damage, as well as damage to other parts of the body.

References 3-6

Click on each example to learn more.



## Formalin (Slide Layer)

### Health Hazards: Examples



Examples of chemicals that are health hazards include:

- Lead
- Mercury
- Formalin
- Glutaraldehyde

This chemical is used as a fixative. Ten percent formalin is a carcinogen and severe eye and skin irritant. It can cause instant and irreversible lung damage; dry, flaky skin; and/or allergic reactions.

References 3-6

Click on each example to learn more.



## Glutaraldehyde (Slide Layer)

### Health Hazards: Examples

Examples of chemicals that are health hazards include:


- Lead
- Mercury
- Formalin
- Glutaraldehyde

This chemical is used to disinfect and clean heat-sensitive equipment such as surgical instruments and endoscopes. Glutaraldehyde can cause:

- Throat and lung irritation
- Asthma-like symptoms and breathing difficulty
- Nose irritation and bleeding
- Headache
- Nausea
- Skin and eye irritation
- Other allergic reactions

References 3-6

Click on each example to learn more.



## 1.9 Health Hazards: Routes of Exposure

### Health Hazards: Routes of Exposure


You must be exposed to the chemical for it to harm you.

Routes of exposure include:

- ▶ Eyes
- ▶ Skin
- ▶ Inhalation
- ▶ Ingestion
- ▶ Injection

Reference 7

Roll over each route of exposure to learn more.



## Eyes (Slide Layer)

### Health Hazards: Routes of Exposure

You must be exposed to the chemical for it to harm you.


Routes of exposure include:

- > Eyes
- > Skin
- > Inhalation
- > Ingestion
- > Injection

**Eyes:**  
Many chemicals can burn or irritate the eyes. In some cases, chemicals may be absorbed through the eyes and enter the bloodstream.

Reference 7

Roll over each route of exposure to learn more.



## Skin (Slide Layer)

### Health Hazards: Routes of Exposure

You must be exposed to the chemical for it to harm you.


Routes of exposure include:

- > Eyes
- > Skin
- > Inhalation
- > Ingestion
- > Injection

**Skin:**  
Some chemicals can burn the skin. Other chemicals may pass through the skin and enter the bloodstream.

Reference 7

Roll over each route of exposure to learn more.



## Inhalation (Slide Layer)

### Health Hazards: Routes of Exposure

You must be exposed to the chemical for it to harm you.

Routes of exposure include:

- ▶ Eyes
- ▶ Skin
- ▶ Inhalation
- ▶ Ingestion
- ▶ Injection

Reference 7

Roll over each route of exposure to learn more.

**EMORY**  
HEALTHCARE

**Inhalation:**  
The most common type of exposure occurs when chemicals are inhaled into the lungs. Inhaled chemicals may:

- Irritate the nose or throat
- Damage the lungs
- Enter the bloodstream through the lungs

## Ingestion (Slide Layer)

### Health Hazards: Routes of Exposure

You must be exposed to the chemical for it to harm you.

Routes of exposure include:

- ▶ Eyes
- ▶ Skin
- ▶ Inhalation
- ▶ Ingestion
- ▶ Injection

Reference 7

Roll over each route of exposure to learn more.

**EMORY**  
HEALTHCARE

**Ingestion:**  
You may ingest hazardous chemicals while:

- Smoking
- Eating
- Drinking

It is never safe to eat, drink, or smoke near hazardous chemicals. Always wash your hands after working with hazardous chemicals. Wash your hands before eating, drinking, or smoking.

## Injection (Slide Layer)

### Health Hazards: Routes of Exposure

You must be exposed to the chemical for it to harm you.

Routes of exposure include:

- ▶ Eyes
- ▶ Skin
- ▶ Inhalation
- ▶ Ingestion
- ▶ Injection

**Injection:**  
Injection may occur if you are cut with a tool, instrument, or needle that has been contaminated with a chemical.

Reference 7

Roll over each route of exposure to learn more.

EMORY HEALTHCARE

## 1.10 Health Hazards: Types of Damage

### Health Hazards: Types of Damage

Toxic chemicals can have local and /or systemic health effects.

Local Health Effects

Systemic Health Effects

**Key Thought**

A local effect, such as a chemical burn, can provide warning of exposure, alerting you that you may be at risk for systemic injury.

Many chemicals, however, do not produce noticeable local effects. Carbon monoxide gases, for example, can be inhaled without causing irritation or other local effects. Nevertheless, these gases may produce serious systemic effects.

Click on each example to learn more.

EMORY HEALTHCARE

## Local Health Effects (Slide Layer)

### Health Hazards: Types of Damage

Toxic chemicals can have local and /or systemic health effects.

**Local Health Effects**      **Systemic Health Effects**

**Key Thought**

A local effect, such as a chemical burn, can provide warning of exposure, alerting you that you may be at risk for systemic injury.

Many chemicals, however, do not produce noticeable local effects. Carbon tetrachloride, for example, can be inhaled without causing irritation or other local effects. Nevertheless, these gases may produce serious systemic effects.

A local effect occurs when the chemical causes damage at the point where it first contacts the body. For example:

- Eyes
- Skin
- Nose

Click on each example to learn more.

**EMORY**  
HEALTHCARE

## Systemic Health Effects (Slide Layer)

### Health Hazards: Types of Damage

Toxic chemicals can have local and /or systemic health effects.

**Local Health Effects**      **Systemic Health Effects**

**Key Thought**

A local effect, such as a chemical burn, can provide warning of exposure, alerting you that you may be at risk for systemic injury.

Many chemicals, however, do not produce noticeable local effects. Carbon tetrachloride, for example, can be inhaled without causing irritation or other local effects. Nevertheless, these gases may produce serious systemic effects.

A systemic effect occurs when the chemical enters the bloodstream and travels throughout the body. The organs most commonly harmed include:

- Liver
- Kidneys
- Heart
- Brain
- Reproductive organs

Click on each example to learn more.

**EMORY**  
HEALTHCARE


## 1.11 Forms of Hazardous Chemicals

**Forms of Hazardous Chemicals**

Hazardous chemicals come in the forms of:

- Solid
- Liquid
- Gas

**Hazardous**



Click on each example to take a closer look.

EMORY HEALTHCARE

Notes:

### Solid (Slide Layer)

Solids are not usually hazardous. This is because solid materials are not readily absorbed into the body. Certain forms of solids, however, can be highly hazardous. These include:

- Solid
  - Dust
  - Fumes
  - Fibers
- Liquid
- Gas

Click on each item to learn more.  
Rollover the sub-terms to learn more.

EMORY HEALTHCARE



## Liquid (Slide Layer)

Many hazardous chemicals are liquids at normal temperatures and pressures.

Hazardous liquids may:

- Damage the skin
- Enter the body through the skin
- Evaporate, forming toxic gases that can be inhaled

Solid

Liquid

Gas

### Mists

A mist consists of liquid particles produced by agitating or spraying a liquid. Mists can be hazardous if inhaled or sprayed on the skin.

Click on each item to learn more.

Rollover the sub-terms to learn more.

EMORY  
HEALTHCARE

## Gas (Slide Layer)

Gases can be:

- Flammable
- Explosive
- Toxic

Hazardous gases can be difficult to detect. Many gases do not have a distinctive color or odor.

Solid

Liquid

Gas

### Vapor

Vapor is the gaseous form of a substance that is primarily a liquid at normal temperatures and pressures, but evaporates readily.

For example, alcohol is a liquid at room temperature, but evaporates rapidly to form vapors.

Vapors can:

- Be inhaled.
- Irritate the eyes, skin, or respiratory tract.
- Be flammable, explosive, and/or toxic.

Click on each item to learn more.

Rollover the sub-terms to learn more.

EMORY  
HEALTHCARE

## Fumes (Slide Layer)



Fume consists of very small, fine solid particles, suspended in the air. Fume is created when solid chemicals (often metals) are heated to very high temperatures. After they evaporate to the gaseous state, they re-solidify. Fume is easily inhaled. Metal fumes can be highly toxic. An example of hazardous fume is lead oxide, which can be produced during soldering.

EMORY  
HEALTHCARE

## Fibers (Slide Layer)



A fiber is long, thin solid particle. Small fibers can be inhaled. Very small fibers can lodge in the lungs and cause damage. An example of hazardous fiber is asbestos.

EMORY  
HEALTHCARE

## Dust (Slide Layer)



Dust consists of very small solid particles. These are suspended in the air. Hazardous dust is created when certain solids are pulverized, or settled dust becomes airborne. Dust can:

- Be inhaled.
- Enter the bloodstream through the lungs.
- Explode or react violently with other substances.

An example of hazardous dust is silica.

EMORY  
HEALTHCARE

### 1.12 Knowledge Check

(Multiple Choice, 10 points, unlimited attempts permitted)

## Knowledge Check

All of the following are true EXCEPT:  
Select the answer that best fits the question.

- Trinitrotoluene is a physical hazard.
- Physical hazards are defined by the way in which a chemical interacts with other substances or the environment.
- A chemical with physical hazards can harm you by exploding, igniting, or reacting violently with other substances.
- All of the above are true.

EMORY  
HEALTHCARE

Correct Choice

Trinitrotoluene is a physical hazard.

Physical hazards are defined by the way in which a chemical interacts with other substances or the environment.

A chemical with physical hazards can harm you by exploding, igniting, or reacting violently with other substances.

X All of the above are true.

**Feedback when correct:**

That's right! All of these statements are true.

**Feedback when incorrect:**


All of these statements are true.

**Notes:**

**Correct (Slide Layer)**

The screenshot shows a slide titled "Knowledge Check" with a red checkmark icon in the top right corner. The question text reads: "All of the following are true EXCEPT: Select the answer that best fits the question." Below the question are four radio button options: "Trinitro...", "Physical other st...", "A chemi reacting...", and "All of the above are true." The "All of the above are true." option is selected. A grey feedback overlay box is centered on the slide, containing the text "Correct" and "That's right! All of these statements are true." with a "Continue" button below it. The Emory Healthcare logo is visible in the bottom right corner of the slide.

### Incorrect (Slide Layer)

**Knowledge Check** 

All of the following are true EXCEPT:  
Select the answer that best fits the question.

- Trinitrotoluene reacts with
- Physical properties of other substances
- A chemical reaction involving, or
- All of the above are true.

**Incorrect**

All of these statements are true.

Continue

**EMORY HEALTHCARE**

### Try Again (Slide Layer)

**Knowledge Check** 

All of the following are true EXCEPT:  
Select the answer that best fits the question.

- Trinitrotoluene reacts with
- Physical properties of other substances
- A chemical reaction involving, or
- All of the above are true.

**Incorrect**

That is incorrect. Please try again.

Try Again

**EMORY HEALTHCARE**

## 1.13 Summary

### Summary

You have completed the lesson on hazardous materials.

Remember:

- Chemicals can have physical and/or health hazards.
- Physical hazards are related to the way a chemical interacts with other substances or the environment.
- Health hazards are related to the way a chemical interacts with your body.
- Routes of exposure to hazardous chemicals include the eyes, the skin, inhalation, ingestion, and injection.
- Toxic chemicals can have local or systemic health effects.
- Hazardous chemicals may be solids, liquids, or gases.
- Solids are not usually hazardous. Dust, fume, and fibers, however, can be highly hazardous, depending on the material.
- Many hazardous chemicals are liquids at normal temperatures and pressures.
- Gases can be flammable, explosive, and/or toxic.

EMORY  
HEALTHCARE

## 1.14 Introduction: Lesson 3

### Introduction

Welcome to the lesson on safety data sheets.

This lesson will review:

- The responsibilities of:
  - Manufacturers and distributors of hazardous chemicals
  - Employers
  - Employees
- How to read a safety data sheet and understand its contents
- The importance of following all storage and use instructions contained in a safety data sheet

References 1

Lesson Map

- Lesson 3: Safety Data Sheets
  - Responsibilities
  - SDS Sections

EMORY  
HEALTHCARE

## 1.15 The Manufacturer's Responsibility

### The Manufacturer's Responsibility

The HCS requires that all manufacturers of hazardous materials determine the specific physical and health hazards of their products.

The manufacturer must record all hazard information for the product in a Safety Data Sheet (SDS).

Finally, the manufacturer (or distributor) is responsible for providing the relevant safety data sheet to those who purchase the product.



References 1

EMORY HEALTHCARE


## 1.16 Your Employer's Responsibility

### Your Employer's Responsibility

The HCS requires your facility to compile a list of all hazardous chemicals used in the facility.

Each of the chemicals on the list must have a safety data sheet.

This file must be readily available to all workers in their work areas at all times.



References 1

EMORY HEALTHCARE

## 1.17 Your Responsibility

### Your Responsibility

All employees must know how to obtain information on any chemical they use.

You should know:

- Which hazardous chemicals are used in your work area.
- How to read a safety data sheet.
- Know where to find the safety data sheet.  
The safety data sheets are located on EHC Intranet Explorer at <http://www.msdsonline.com> or go to Quick Links at the bottom of the main page and click on Resources.

You must be trained by your employer when you are assigned to work with any hazardous chemical.  
**You are responsible** for reading all safety data sheets before using a hazardous chemical.

References 1

**Key Thought**  
You are responsible for knowing where to find SDSs, and how to read them.

Always follow safety data sheet instructions for chemical use and storage.





## 1.18 Format


### Format

OSHA's Hazard Communication Standard specifies the information that has to be on the safety data sheet, but no specific format is required. A 16-section format has been developed and is recommended by OSHA.

**16 Sections recommended by OSHA:**

|                             |                                  |
|-----------------------------|----------------------------------|
| Identification              | Physical and chemical properties |
| Hazard(s) identification    | Stability and reactivity         |
| Composition                 | Toxicology information           |
| First-aid measures          | Ecological information           |
| Fire-fighting measures      | Disposal considerations          |
| Accidental release measures | Transport information            |
| Handling & storage          | Regulatory information           |
| Personal Protection         | Other information                |

References 9







## 1.19 Safety Data Sheet Sections

### Sections

Information in a safety data sheet is divided into sections:

- Identification
- Hazard(s) identification
- Composition/information on ingredients
- First-aid measures
- Fire-fighting measures
- Accidental release measures
- Handling and storage
- Exposure controls/personal protection
- Physical and chemical properties
- Stability and reactivity
- Toxicological information
- Ecological information
- Disposal considerations
- Transport information
- Regulatory information
- Other information



Click on each term to take a closer look at each section. Click on the  to return to this view. A check mark will appear after you review each section to show your progress.

**EMORY**  
HEALTHCARE

### Section 1: Identification (Slide Layer)

#### Section 1: Identification

The Identification section contains general information such as the:

- Product identifier used on the label.
- Name and address of the product manufacturer.
- Emergency phone number for questions regarding product toxicity and other hazards.
- Recommended use of the chemical and restrictions on use.



**Identification**

|                          |                               |
|--------------------------|-------------------------------|
| Product Name             | : Chemical Stuff              |
| Synonyms                 | : Methylbory Solution         |
| CAS Number               | : 000-00-0                    |
| Product Use:             | : Organic Synthesis           |
| Manufacturer/Supplier    | : My Company                  |
| Address                  | : My Street, Mytown, TX 00000 |
| General Information      | : 713-000-0000                |
| Transportation Emergency | : CHEMTREC: 800-424-9300      |

**Label**

| Label | Precedence | Usage |
|-------|------------|-------|
| 1     | 2          | 3     |

**GHS Label**

|   |   |
|---|---|
| 1 | 2 |
|---|---|

Reference 10

## Section 2: Hazard Identification (Slide Layer)

### Section 2: Hazard Identification

This section should include:

- The **hazard class** of the chemical.  
The nature of the physical or health hazards such as flammable solid, carcinogen, or oral acute toxicity.
- The **hazard category** of the chemical.  
Divisions within each hazard class that compare hazard severity within the class.

| GHS Classifications  |                             |                               | GHS Labels   |  |
|--|-----------------------------|-------------------------------|--|--|
| Health   | Environmental               | Physical                      | Symbols, P-Phrases, H-Phrases, Corrosion, Health-Hazard  |  |
| Acute Toxicity - Category 2 (oral/inhalation), Category 3 (dermal)<br>Eye Corrosion - Category 1<br>Skin Corrosion - Category 1<br>Skin Irritation - Category 2<br>Sensitization - Category 1<br>Carcinogenicity - Category 1B<br>Reproductive/Developmental Toxicity - Category 2<br>Target Organ Toxicity (Respiratory) - Category 2 | Acute Toxicity - Category 2 | Flammable/Liquid - Category 2 | <b>Hazard Statements</b><br><b>DANGER!</b><br>Highly Flammable (solid and Vapor)<br>Fatal if inhaled<br>Causes severe skin burns and eye damage<br>May cause allergic skin reaction<br>May be fatal if swallowed and in contact with skin<br>May cause cancer<br>Suspected of damaging the unborn child<br>Suspected of causing genetic defects<br>May cause damage to cardiovascular, respiratory, nervous, and gastrointestinal systems and hair and blood through prolonged or repeated exposure. Toxic to aquatic life | <b>Precautionary Statements</b><br>Do not eat, drink or use tobacco when using this product<br>Do not breathe vapors/mists<br>Keep container tightly closed<br>Keep away from heat/hot surfaces/flammable<br>No smoking<br>Wear respiratory protection, protection gloves and eye/face protection<br>Use only in a well-ventilated area<br>Take precautionary measures against static discharge<br>Use only non-sparking tools<br>Store container tightly closed in well-ventilated area<br>Wash thoroughly after handling |

References 10

## Section 3: Composition/Information on Ingredients (Slide Layer)

### Section 3: Composition/Information on Ingredients

Except for trade secrets, this section

lists:

- Chemical name
- Common name and synonyms
- CAS number and other unique identifiers
- Impurities or additives

For mixtures, the name and concentration of all ingredients which are classified as health hazards is required.

| Chemical Stuff<br>GHS SAFETY DATA SHEET         |                             |
|---|-----------------------------|
| <b>Identification</b>                           |                             |
| Product Name                                    | Chemical Stuff              |
| Synonyms  | Methylolol Solution         |
| CAS Number                                      | 000-00-0                    |
| Product Use                                     | Organic Synthesis           |
| Manufacturer/Supplier                           | My Company                  |
| Address   | My Street, Mytown, TX 00000 |
| General Information                             | TEL: 000-0000               |
| Transportation Emergency Number                 | (CHEMTAC) 800-424-9300      |
| <b>Composition / Information on Ingredients</b> |                             |
| Component CAS Number                            | Weight %                    |
| Methylololol 000-00-0                           | 80                          |
| (See Section 8 for Exposure Limits)             |                             |

CAS number

A unique number assigned to every chemical by the Chemical Abstracts Service

References 10

## Section 4: First Aid Measures (Slide Layer)

### Section 4: First Aid Measures

First aid measures are based on exposure route:

- Eyes
- Skin
- Inhalation
- Ingestion

The most important symptoms or effects should be listed, as well as immediate and delayed reactions.

Specific advice to health care personnel should be provided.

Roll over each route with your mouse for examples.

**Ingestion**  
Get immediate medical attention. Do not induce vomiting unless directed by medical personnel.

References 10

## Section 5: Fire-fighting Measures (Slide Layer)

### Section 5: Fire-fighting Measures

This section provides information about **flammability** of the product. It also lists how to properly extinguish fires involving the product.

Information includes:

- Extinguishing media
- Fire-fighting procedures
- Fire or explosion hazards

Roll over each item to learn more.

**Fire or explosion hazards:**  
Conditions that may cause this product to explode or ignite. Be certain to avoid these conditions. Never smoke in areas where chemicals may be present. A match, lighter, or cigarette could set off an explosion or start a fire.

#### **Flammability**

The measure of a material's ability to burn

References 10

## Section 6: Accidental Release Measures (Slide Layer)

### Section 6: Accidental Release Measures



This section covers spills and leaks:

- Personal precautions, protective equipment, and emergency procedures.
- Methods and materials for containment and clean up.

Compressed Gas Cylinder Safety  
Reference: 200-450-0-00  
Title: Section 6: Accidental Release

**6. Accidental Release**

**6.1. Personal Precautions, Protective Equipment, and Emergency Procedures**

Wear eye protection. Flush immediately with large amounts of water for at least 15 minutes. For first aid, flush from the eyelid to avoid through opening. Get complete medical attention.

Wear clothing in handling of the skin. Immediately flush the skin with plenty of water while you remove contaminated clothing and shoes. Get immediate medical attention. Wash contaminated skin thoroughly.

Wash face, hands, feet, clothes, shoes, clothing, hair, equipment, jewelry, tools, vehicles, equipment, and tools of the body. Remove contaminated items if possible.

**6.2. Methods and Materials for Containment and Clean Up**

**E. Accidental Release Measures**

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. (Also see Section 8).

Vapor protective clothing should be worn for spills and leaks. Shut off ignition sources; no flames, smoking or flames in hazard area. Small spills: Take up with sand or other noncombustible absorbent material and place into containers for later disposal. Large spills: Dike far ahead of liquid spill for later disposal.

Do not flush to sewer or waterways. Prevent release to the environment if possible. Refer to Section 15 for spill/release reporting information.

References 10

## Section 7: Handling and Storage (Slide Layer)

### Section 7: Handling and Storage



This section provides precautions for safe handling and storage, including any incompatibilities.

Compressed Gas Cylinder Safety  
Reference: 200-450-0-00  
Title: Section 7: Handling and Storage

**7. Handling and Storage**

**Handling**

Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Keep container closed. Use only with adequate ventilation. Use good personal hygiene practices. Wash hands before eating, drinking, smoking. Remove contaminated clothing and clean before re-use. Destroy contaminated belts and shoes and other items that cannot be decontaminated.

Keep away from heat and flame. Keep operating temperatures below ignition temperatures at all times. Use non-sparking tools.

**Storage**

Store in tightly closed containers in cool, dry, well-ventilated area away from heat, sources of ignition and incompatibles. Ground lines and equipment used during transfer to reduce the possibility of static spark-induced fire or explosion. Store at ambient or lower temperatures. Store out of direct sunlight. Keep containers tightly closed and upright when not in use. Protect against physical damage.

Empty containers may contain toxic, flammable and explosive residue or vapors. Do not cut, grind, drill, or weld on or near containers unless precautions are taken against these hazards.

References 10

## Section 8: Exposure Controls and Personal Protection Information (Slide Layer)

### Section 8: Exposure Controls and Personal Protection Information

This section provides information about exposure limits and required personal protective equipment (PPE).

**8. Exposure Controls / Personal Protection**

**Exposure Limits**  
Component, Methylisobutylamine - TWEL: 3 ppm (skin) - STEL: C 15 ppm (15 min.)

**Engineering Controls:** Local exhaust ventilation may be necessary to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source. Provide mechanical ventilation for confined spaces. Use explosion-proof ventilation equipment.

**Personal Protective Equipment (PPE)**

**Eye Protection:** Wear chemical safety goggles and face shield. Have eye wash stations available where eye contact can occur.

**Skin Protection:** Avoid skin contact. Wear gloves impervious to conditions of use. Additional protection may be necessary to prevent skin contact including use of apron, face shield, boots or full body protection. A safety shower should be located in the work area. Recommended protective materials include nitrile rubber and for

#### Exposure limit

The maximum concentration of a chemical to which most people can be exposed without experiencing harmful effects

References 10

## Section 9: Physical and Chemical Properties (Slide Layer)

### Section 9: Physical and Chemical Properties

This section lists physical properties of the product. For example:

- Appearance
- Odor
- Odor threshold
- pH
- Melting point/freezing point
- Boiling point and range
- Flash point
- Evaporation rate
- Flammability
- Vapor pressure and density
- Solubility
- Partition coefficient: in octanol
- Auto-ignition temperature
- Decomposition temperature
- Viscosity

**9. Physical and Chemical Properties**

**Decomposition:**  
Chemical separation of a substance into two or more products; the products may differ from each other and from the original substance.

Lower Flammability Limit: 1.300%

Upper Flammability Limit: 4.13.00%

Specific Gravity: 0.620/ml @ 20°C

% Volatile: 100

Evaporation Rate (Water=1): 5 (Butyl Acetate =1)

Viscosity: 0.3 cP @ 25°C

Octanol/Water Partition Coefficient: log Kow: 0.5

pH: 7, 6% aqueous solution

Molecular Weight: Mixture

References 10

## Section 10: Stability and Reactivity (Slide Layer)

**Section 10: Stability and Reactivity**

The reactivity data section provides information about the product's stability. It also contains any special storage or use instructions. Follow these instructions.

Specific information in this section includes:

- Chemical Stability
- Possibility of hazardous reactions.
- Conditions to avoid
- Incompatible materials
- Hazardous decomposition

**Hazardous Decomposition:**  
Chemical separation of a substance into two or more products that may differ from each other and from the original substance

**Hazardous decomposition products:**  
Hazardous products created by decomposition

**Hazardous decomposition:**  
Chemical separation of a substance into two or more products that may differ from each other and from the original substance

References 10

## Section 11: Toxicological Information (Slide Layer)

**Section 11: Toxicological Information**

A description of the various health effects and how to identify them should be listed, including:

- Information on likely routes of exposure.
- Symptoms related to the physical, chemical, and toxicological characteristics.
- Delayed and immediate effects and also chronic effects from short- and long-term exposure.

The most common routes of exposure are inhalation, ingestions, skin and eye contact.

**11. Toxicological Information**

Signs and Symptoms of Overexposure: Eye and nasal irritation, headache, dizziness, nausea, vomiting, heart palpitations, difficulty breathing, cyanosis, tremors, weakness, itching or burning of the skin.

**Acute Effects:**

**Eye Contact:** may cause severe conjunctive irritation and corneal damage.

**Skin Contact:** may cause reddening, blistering or burns with permanent damage. Harmful if absorbed through the skin. May cause allergic skin reaction.

**Inhalation:** may cause severe irritation with possible lung damage (pulmonary edema).

**Ingestion:** may cause severe gastrointestinal burns.

**Target Organ Effects:** May cause gastrointestinal (oral), respiratory tract, nervous system and blood effects based on experimental animal data. May cause cardiovascular system and liver effects.

**Chronic Effects:** based on experimental animal data, may cause changes to genetic material; adverse effects on the developing fetus or on reproduction at doses that were toxic to the mother. Hexamethylenetetramine is classified by IARC as group 2B and by NTP as reasonably anticipated to be a human carcinogen. DNA regulates Methylation as a potential carcinogen.

**Medical Conditions Aggravated by Exposure:** preexisting diseases of the respiratory tract, nervous system, cardiovascular system, liver or gastrointestinal tract.

**Acute Toxicity Values**

Oral LD50 (Rat) = 100 mg/kg  
Dermal LD50 (Rabbit) = 225-300 mg/kg  
Inhalation LC50 (Rat) = 200 ppm/4 hr., 1200 ppm vapour/1 hr

References 10

## Section 12-15: Non-mandatory Information (Slide Layer)



### Section 12-15: Non-mandatory Information

Information on ecological, disposal, transport, and regulatory considerations is outside the jurisdiction of OSHA. While not required by OSHA, this information may be necessary for GHS compliance.



References 11

References 10

## Section 16: Other Information (Slide Layer)



### Section 11: Other information

The date of preparation of the safety data sheet, or its most recent revision, should be listed here.



References 10



## 1.20 Summary

### Summary

Scroll down

You have completed the lesson on safety data sheets.

Remember:

- The manufacturer of any hazardous chemical must research, develop, and distribute an SDS.
- Your employer must acquire and maintain a file of SDSs for all hazardous chemicals used in your facility. This file must be readily available to all workers.
- Employees must know where to find SDSs. You must know how to read them. You should also follow SDS instructions for chemical use and storage.
- Information in an SDS is divided into sections.
- The Identification section contains general information about the product and the manufacturer.
- The Hazards Identification section lists the hazard class and category of the product.
- The Composition section details the chemical name and common name of the



## 1.21 Introduction: Lesson 4

### Introduction

Welcome to the lesson on labeling of hazardous chemicals.


This lesson will review:

- Who is responsible for labeling hazardous chemicals.
- The proper contents of a container label.
- The importance of following all storage and use instructions contained in a safety data sheet.

#### Lesson Map

Lesson 4: Labeling of Hazardous Chemicals

- ▶ Container labels
- ▶ Hazard warnings
- ▶ Symbols





## 1.22 Container Labels: Manufacturer Responsibilities

### Container Labels: Manufacturer Responsibilities

OSHA standards require chemical manufacturers and importers to label all containers of hazardous materials.

Labels must be written in English.

A label must include the following information:

- Product identifier
- Signal word
- Hazard statement(s)
- Pictogram(s)
- Precautionary statement(s)
- Name, address, and telephone number of the manufacturer



References 12

EMORY  
HEALTHCARE

## 1.23 Product Identifier

### Container Labels: Product Identifier

The Product Identifier on the label should match that used on the SDS.




References 12

EMORY  
HEALTHCARE

## 1.24 Container Labels: Signal Word

### Container Labels: Signal Word

The signal word indicates the relative level of the hazard. "Danger" is used for more severe hazard categories and "Warning" for less severe.



**EMORY**  
HEALTHCARE

## 1.25 Container Labels: Hazard Statement

### Container Labels: Hazard Statement

Hazard statements are assigned to a hazard class and category to describe the nature and degree of the hazard.

Examples include:

- Fatal if swallowed.
- Toxic if swallowed.
- Harmful if swallowed.
- May be harmful if swallowed.

References 14










**EMORY**  
HEALTHCARE

## 1.26 Container Labels: Pictograms

### Container Labels: Pictograms

Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram.

Click on each image to learn more and a check mark will appear for each label you review.

|  |  |   |
|--|--|---|
|  <ul style="list-style-type: none"><li>• Oxidizers</li></ul>  |  <ul style="list-style-type: none"><li>• Flammables</li><li>• Self Reactives</li><li>• Pyrophorics</li><li>• Self-heating</li><li>• Emits Flammable Gas</li><li>• Organic Peroxides</li></ul> |  <ul style="list-style-type: none"><li>• Explosives</li><li>• Self Reactives</li><li>• Organic Peroxides</li></ul>   |
|  <ul style="list-style-type: none"><li>• Acute Toxicity (severe)</li></ul>  |  <ul style="list-style-type: none"><li>• Corrosives</li></ul>   |  <ul style="list-style-type: none"><li>• Gases Under Pressure</li></ul>  |
|  <ul style="list-style-type: none"><li>• Carcinogens</li><li>• Respiratory Sensitizers</li><li>• Reproductive Toxicity</li><li>• Target Organ Toxicity</li><li>• Mutagens</li><li>• Aspiration Toxicity</li></ul> |  <ul style="list-style-type: none"><li>• Environmental Toxicity</li></ul>   |  <ul style="list-style-type: none"><li>• Irritant</li><li>• Skin Sensitizer</li><li>• Acute Toxicity (harmful)</li><li>• Narcotic Effects</li><li>• Respiratory Tract</li><li>• Hazardous to Ozone Layer</li></ul> |


**EMORY HEALTHCARE**

### oxidizers (Slide Layer)

### Container Labels: Pictograms

Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram.

Click on each image to learn more and a check mark will appear for each label you review.

|  |  |  |
|--|--|--|
|  <input type="checkbox"/> |  <input type="checkbox"/> |  <input type="checkbox"/> |
|--|--|--|

The "Flame Over Circle" picture is used to identify an oxidizing agent.

**Oxidizing agent:**  
Chemical that can act as an electron acceptor; often a very reactive chemical; may form unstable mixtures that create a risk of fire or explosion when in contact with combustible material




**EMORY HEALTHCARE**

## skull and cross bones (Slide Layer)

### Container Labels: Pictograms

Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram.

Click on each image to learn more and a check mark will appear for each label you review.

|   |             |   |   |   |   |
|---|-------------|---|---|---|---|
|  | • Oxidizers |  | • Flammables<br>• Self Reactives<br>• Pyrophorics |  | • Explosives<br>• Self Reactives<br>• Organic Peroxides |
|---|-------------|---|---|---|---|

The "Skull and Crossbones" identifies products with the potential for severe, acute toxicity.

## health\_hazard (Slide Layer)

### Container Labels: Pictograms

Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram.

Click on each image to learn more and a check mark will appear for each label you review.

|   |             |   |   |   |   |
|---|-------------|---|---|---|---|
|  | • Oxidizers |  | • Flammables<br>• Self Reactives<br>• Pyrophorics |  | • Explosives<br>• Self Reactives<br>• Organic Peroxides |
|---|-------------|---|---|---|---|




This picture is titled "Health Hazard" and is used to label the following products:

- Carcinogens
- Mutagens
- Reproductive Toxins
- Respiratory Sensitizers
- Products with target organ toxicity
- Products with aspiration toxicity

## flames (Slide Layer)

### Container Labels: Pictograms

Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram.  
Click on each image to learn more and a check mark will appear for each label you review.

|   |                          |   |                          |   |                          |
|---|--------------------------|---|--------------------------|---|--------------------------|
|  | <input type="checkbox"/> |  | <input type="checkbox"/> |  | <input type="checkbox"/> |
| Oxidizers   |                          | Flammables<br>Self Reactives<br>Pyrophorics                                       |                          | Explosives<br>Self Reactives<br>Organic Peroxides                                 |                          |

The "Flame" representation is used to identify:

- Flammables
- **Pyrophorics**
- Self-Heating
- Emits
- Flammable Gas
- Self Reactive chemicals
- Organic Peroxides




References 14

**Pyrophoric:**  
A substance that will ignite spontaneously in air

## corrosive (Slide Layer)

### Container Labels: Pictograms

Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram.  
Click on each image to learn more and a check mark will appear for each label you review.

|   |                          |   |                          |   |                          |
|---|--------------------------|---|--------------------------|---|--------------------------|
|  | <input type="checkbox"/> |  | <input type="checkbox"/> |  | <input type="checkbox"/> |
| Oxidizers   |                          | Flammables<br>Self Reactives<br>Pyrophorics   |                          | Explosives<br>Self Reactives<br>Organic Peroxides                                   |                          |

**Corrosives** are identified by the "Corrosion" pictogram.




**Corrosives:**  
A substance that will destroy or damage another substance it comes in contact with

## environments (Slide Layer)


### Container Labels: Pictograms

Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram.

Click on each image to learn more and a check mark will appear for each label you review.

|   |   |   |   |   |   |
|---|---|---|---|---|---|
|  | <ul style="list-style-type: none"><li>• Oxidizers</li></ul> |  | <ul style="list-style-type: none"><li>• Flammables</li><li>• Self Reactives</li><li>• Pyrophorics</li></ul> |  | <ul style="list-style-type: none"><li>• Explosives</li><li>• Self Reactives</li><li>• Organic Peroxides</li></ul> |
|---|---|---|---|---|---|

The "Environment" pictogram indicates environmental or aquatic toxicity. Since environmental concerns are outside the scope of OSHA, this pictogram is not mandatory.






## exploding bomb (Slide Layer)

### Container Labels: Pictograms


Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram.

Click on each image to learn more and a check mark will appear for each label you review.

|   |   |   |   |   |   |
|---|---|---|---|---|---|
|  | <ul style="list-style-type: none"><li>• Oxidizers</li></ul> |  | <ul style="list-style-type: none"><li>• Flammables</li><li>• Self Reactives</li><li>• Pyrophorics</li></ul> |  | <ul style="list-style-type: none"><li>• Explosives</li><li>• Self Reactives</li><li>• Organic Peroxides</li></ul> |
|---|---|---|---|---|---|

The "Exploding Bomb" pictogram is used to indicate:

- Explosives
- Self Reactives
- Organic Peroxides






## glass cylinder (Slide Layer)

### Container Labels: Pictograms

Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram.

Click on each image to learn more and a check mark will appear for each label you review.

|   |             |   |   |   |   |
|---|-------------|---|---|---|---|
|  | • Oxidizers |  | • Flammables<br>• Self Reactives<br>• Pyrophorics |  | • Explosives<br>• Self Reactives<br>• Organic Peroxides |
|---|-------------|---|---|---|---|




The "Gas Cylinder" picture is used to label gases under pressure.

## exclamation mark (Slide Layer)

### Container Labels: Pictograms

Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram.

Click on each image to learn more and a check mark will appear for each label you review.

|   |             |   |   |   |   |
|---|-------------|---|---|---|---|
|  | • Oxidizers |  | • Flammables<br>• Self Reactives<br>• Pyrophorics |  | • Explosives<br>• Self Reactives<br>• Organic Peroxides |
|---|-------------|---|---|---|---|

The "Exclamation Mark" is used for these properties:

- Irritant
- Skin Sensitizer
- Acute Toxicity (harmful)
- Narcotic effects
- Respiratory Tract Irritation
- Hazardous to Ozone Layer


## 1.27 Summary

### Summary

You have completed the lesson on chemical container labeling.

Remember:

- The manufacturer must label all containers in English. The label must contain the product identifier, signal word, hazard statement(s), pictogram(s), precautionary statement(s), and contact information for the manufacturer.
- Your employer must make sure that all chemical containers are labeled properly. Incoming chemicals should be inspected to verify proper labeling. If a chemical is transferred to a new container, the new container must be labeled appropriately.
- Employees must read product labels carefully. Follow all instructions. Heed all warnings.
- The 8 mandatory and 1 optional pictograms are used to identify the class of the hazard.



## 1.28 Introduction: Lesson 5


### Introduction

Welcome to the lesson on personal protective equipment (PPE).

We will discuss the responsibilities of employers and employees, with regard to PPE and the various types of PPE that may be required.

#### Lesson Map

- Lesson 5: Personal Protective Equipment
  - ▶ Purpose
  - ▶ Responsibilities
  - ▶ Types





## 1.29 PPE: Purpose

### PPE: Purpose

The purpose of PPE is to shield workers from physical and health workplace hazards. These hazards include:

- Chemical
- Radiological
- Physical
- Electrical
- Mechanical
- Other



References 15

EMORY  
HEALTHCARE


## 1.30 PPE: Employer Responsibilities

### PPE: Employer Responsibilities

Your employer is responsible for selecting the types of PPE. It must provide appropriate PPE for all hazards in your work area.

Your employer must train all workers required to use PPE. Training should educate employees about:

- When to use PPE
- Which types of PPE to use
- How to put on PPE
- How to use PPE
- How to remove PPE
- How to store and maintain reusable PPE
- How to dispose of single-use PPE
- Understanding the limitations of PPE



References 15

EMORY  
HEALTHCARE

## 1.31 PPE: Employer Responsibilities

### PPE: Employer Responsibilities

Trained employees are responsible for following facility procedures for PPE.

Reusable PPE should be decontaminated, cleaned, and stored after each use.

Single-use PPE should be disposed of according to facility protocol. This is also true for heavily contaminated reusable PPE.


#### Key Thought

Always select adequate PPE, but not too much.

Excess PPE can create hazards such as:

- Heat stress
- Physical and psychological stress
- Impaired vision
- Impaired mobility
- Impaired communication

References 16



## 1.32 Types of PPE


### Types of PPE

Types of PPE may include:

- Protective clothing
- Respiratory equipment
- Eye protection



References 16



### 1.33 Types of PPE

## Types of PPE

Protective clothing may include:


- Gloves
- Suits/gowns
- Coveralls
- Hoods
- Boots

Choose a glove material appropriate for the chemical. Latex gloves are permeable to many chemicals. They do not provide adequate protection.

Gowns, coveralls, and other protective clothing should be worn if hazardous chemicals might splash or spill on your clothes.

Choose protective clothing appropriate for the chemical. Some chemicals require impermeable gowns for adequate protection.

References 16



**EMORY**  
HEALTHCARE

### 1.34 Types of PPE: Respiratory Equipment


## Types of PPE: Respiratory Equipment

Respirators cover the mouth and nose. They prevent inhalation of hazardous substances.

Respirators are only effective if:

- The proper respirator for the chemical/situation is selected.
- The worker is trained in use of the respirator.
- The respirator fits properly.
- The respirator is properly maintained.

References 17



**EMORY**  
HEALTHCARE


## 1.35 Types of PPE: Eye Protection

### Types of PPE: Eye Protection

Goggles protect the eyes from hazardous chemical splashes.

Face shields protect the entire face.

Prescription glasses are not a substitute for goggles. Glasses may break. They also do not shield the eyes from all angles.



Employee wearing goggles as protective equipment.

References ET

EMORY  
HEALTHCARE

## 1.36 Summary

### Summary

You have completed the lesson on PPE.

Remember:

- Employers must select and provide appropriate PPE for all hazards in the work environment.
- Employers must train workers in the safe and effective use of PPE.
- Trained employees must follow facility procedures and protocols for the selection, use, storage, maintenance, and disposal of PPE.
- Choose protective clothing appropriate for the chemical.
- Use respirators appropriately.
- Use goggles or a face shield when there is a risk of splash or splatter from a hazardous chemical.

EMORY  
HEALTHCARE

## 1.37 Resources

### References

[Scroll down](#)

12. Occupational Safety & Health Administration. The Globally Harmonized System for Hazard Communication. OSHA GHS Proposal, Appendix C: Allocation of Label Elements. Available at: [http://www.osha.gov/haz/hatcom/appendix\\_c.pdf](http://www.osha.gov/haz/hatcom/appendix_c.pdf).

13. Occupational Safety & Health Administration. Comparison of Hazard Communication Requirements. OSHA Hazard Communication Standard 29 CFR 1910.1200 (HCS), Globally Harmonized System (GHS). Available at: <http://www.osha.gov/haz/hatcom/ghshccomparison.html>.

14. Occupational Safety & Health Administration. A Guide to The Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

15. Occupational Safety & Health Administration. OSHA Fact Sheet Personal Protective Equipment.

16. Occupational Safety & Health Administration. Personal Protective Equipment.

17. Occupational Safety & Health Administration. OSHA Bulletin. General Respiratory Protection Guidance for Employers and Workers.

Please remember that compliance is the responsibility of each organization. Provision of this list does not imply that the content of this course wholly or partially addresses the guidelines and references provided here.



## 1.38 END


### END

Congratulations!

You have completed...  
**EHC Hazard Communication**

Thank you for taking time to complete this course. Please click on the **EXIT** button below to return to the main HILC course page. Complete and pass the **posttest** to receive credit for this course.

[EXIT](#)



# Standard Precautions

This course provides essential information that will help you to know:

- What bloodborne pathogens are
- What the symptoms of disease are from bloodborne and airborne pathogens, and
- Safe work practices, known as "standard precautions," when working with blood and body fluids, or around possible airborne pathogens.



# Standard Precautions

## Exposure Control Plan

Could the performance of your duties as an employee potentially expose you to blood or other infectious materials?

If the answer is yes, then your employer has created and implemented an exposure control plan. This is a written plan that helps maintain a safe workplace by outlining specific work practices to eliminate or minimize employee exposure.





# Standard Precautions

## Other Questions

If you have questions about any of the material presented in this course on **Standard Precautions**, or any questions about the Infection Prevention and Control Programs for Emory Healthcare, we encourage you to discuss your question with your supervisor, and to use the Infection Prevention and Control web site (on the Emory Healthcare intranet under *Departments > Office of Quality & Risk > Infection Prevention and Control*).

The purpose of this site is to support Emory Healthcare's mission to promote patient safety by eliminating preventable health care associated infections.

## Contacts

To contact Infection Prevention and Control, please see the "Contacts" link on the web site which includes current Infection Prevention and Control Coordinators for each EHC facility as well as Leadership Contacts. If you are a staff member at a facility that is newly affiliated with Emory Healthcare, you may also ask your supervisor to help you contact your facility's Infection Prevention and Control Coordinator.

## More Details

More information about the bloodborne pathogens standard also may be found on the web at [www.osha.gov](http://www.osha.gov).



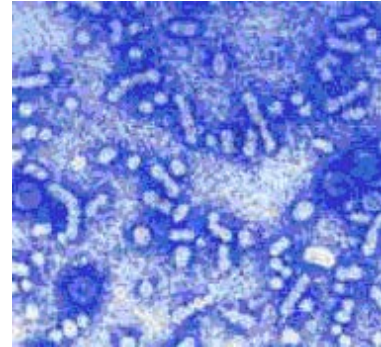


# Standard Precautions

## Common Bloodborne Pathogen

The most common bloodborne pathogens include, among others:

- Hepatitis B virus (HBV)
- Hepatitis C virus (HCV)
- Human immunodeficiency virus (HIV)



# Standard Precautions

## Hepatitis B Virus and Hepatitis C Virus

Hepatitis B virus (HBV) and Hepatitis C virus (HCV) both can cause potentially life-threatening infections. Both of these hepatitis viruses invade the liver and can cause long-term liver damage. Eighty-five percent (85%) of those infected with HCV become chronic carriers of the disease.



# Standard Precautions

## Hepatitis B Vaccine

If you are an Emory Healthcare employee who is at risk for occupational exposure to blood or infectious materials, Emory Healthcare offers you the opportunity to receive the Hepatitis B vaccine, free of charge. The immunity provided by the vaccine appears to last a lifetime. The Centers for Disease Control and Prevention (CDC) currently has no recommendations for providing boosters for HBV on a routine basis. In the case of a high-risk exposure to a patient with HBV, Emory Healthcare may recommend a booster at that time.

If you decide to decline the HBV vaccine, you will be asked to sign a form stating that you were offered the vaccine and voluntarily declined the series of inoculations. If you initially decide to decline the vaccine, you can change your mind at any time and still receive the vaccine free of charge.

For more information, contact our Employee Health Department.

Unfortunately, there is no vaccine for the Hepatitis C virus at this time.



# Standard Precautions

## Symptoms of Infection with Hepatitis B Virus and Hepatitis C Virus

Symptoms of HBV and HCV infection often are confused with those of other illnesses, such as the flu. As a healthcare professional, you must be able to recognize the signs and symptoms of HBV and HCV infection. Symptoms include:

- Fatigue
- Nausea and vomiting
- Loss of appetite
- Jaundice
- Mild fever
- Dark urine
- Aching muscles/joints
- Light colored stools
- Diarrhea
- Itching



# Standard Precautions

## Human Immunodeficiency Virus

The human immunodeficiency virus (HIV) also can cause a potentially life-threatening infection. HIV attacks the immune system and causes the disease commonly known as AIDS. Without a strong, healthy immune system, the body becomes susceptible to many infections and illnesses. Many AIDS patients do not die from HIV, itself, but rather from cancers or pneumonias that develop as a result of a weakened immune system.



# Standard Precautions

## Symptoms of Infection with Human Immunodeficiency Virus (HIV)

Symptoms of HIV infection often are confused with those of other illnesses, such as the flu. Signs and symptoms include:

- Swollen lymph nodes
- Visual changes
- Diarrhea
- Night sweats
- Unexplained weight loss
- Rash
- Fatigue
- Flu-like symptoms
- Frequent pneumonias or shortness of breath





# Standard Precautions

## Modes of Disease Transmission

Bloodborne pathogen diseases may be transmitted in a number of ways, including through:

- Sexual contact
- Organ transplantation
- Sharing needles to inject drugs
- Mother-to-baby exchange of bodily fluids
- Accidental needle-stick injury
- Transfusion of infected blood products
- Contact through mucous membranes or non-intact skin



# Standard Precautions

## Transmission Among Healthcare Workers

The leading cause of transmission of bloodborne pathogen disease to healthcare workers is through needle-stick injury. Other common modes of transmission include splashes or punctures with contaminated sharps such as glass or scalpels.






# Standard Precautions

## Exposure and Transmission

As healthcare workers, we are at greatest risk of contracting hepatitis B virus, in the event of exposure. Our risk of contracting HIV is quite small.



On average, if you have been exposed to a patient with a bloodborne pathogen, the risk of transmission is:

- Hepatitis B Virus (HBV): 6% to 30%
- Hepatitis C Virus (HCV): 1.8%
- Human Immunodeficiency Virus (HIV): 0.3%

# Standard Precautions

## Risk of Transmission

Risk of disease transmission following exposure varies according to a number of factors, including:

- Amount of exposure (for example, a large splash into the mouth presents a higher risk than a small splash)
- Route of exposure (for example, a needle-stick injury presents a higher risk than a splash)
- Amount of virus in the patient's blood (for example, the relatively high concentration of hepatitis virus generally present in a hepatitis-infected patient presents a higher risk than the relatively small amount of human immunodeficiency virus present in an AIDS patient)



# Standard Precautions

## Exposure

In the workplace, we may be exposed to bloodborne pathogens in a number of different ways, including through puncture wounds, through contact with broken skin, or through mucous membranes (eyes, nose, and mouth).

Even a hangnail or a rash can be an entry point for pathogens if you do not wear gloves while handling blood or other infectious materials.



# Standard Precautions

## Standard Precautions

Standard precautions are used in your workplace to help protect you from exposure to blood and other potentially infectious materials.

Standard precautions apply to blood and all body fluids, secretions, and excretions except sweat (regardless of whether or not they contain visible blood).



# Standard Precautions

## Body Fluids

Contact with blood is NOT the only way you can be exposed to a bloodborne disease. Other body fluids also may carry bloodborne pathogens. These other fluids may include, but are not limited to:

- Semen
- Vaginal secretions
- Fluid from around an unborn baby
- Fluid from any human body cavity
- Unfixed tissue or organ
- Miscellaneous cell, tissue, or organ culture
- Saliva from a dental procedure

Any other body fluid visibly contaminated with blood should be treated as if it is potentially infectious. Regardless of the body fluid, following standard precautions will help protect you from exposure to bloodborne diseases.





# Standard Precautions

---

The next set of information will review practices that will help protect you from exposure. These include:

- Hand hygiene
- Engineering controls
- Work practice controls
- Housekeeping controls
- Personal protective equipment (PPE)

# Standard Precautions

## Protecting Yourself

Emory Healthcare has put engineering and work practice controls in place to eliminate or minimize your potential exposure to blood or other potentially infectious materials. [Personal protective equipment](#) (PPE) also is available to help protect you against certain hazards. Refer to your department/section's exposure control plan for more information about these safeguards.

EHC has reviewed the tasks and procedures that put you at risk of potential exposure. Safeguards have been put into place to protect you when you perform these tasks and procedures. Documentation of exposure risks and safeguards is part of your department/section's exposure control plan.



# Standard Precautions

## Hand Hygiene

Cleaning your hands is your single most important defense against the spread of disease. To wash properly, lather your hands vigorously with soap or an antimicrobial agent, rub the hands together for 15 seconds, rinse with a continuous stream of warm water, and dry with a paper towel. A clean paper towel should be used as a barrier to turn off the faucet.





# Standard Precautions

## Hand Hygiene

For your protection, wash your hands at these times:

- Before and after your work shift
- After using the toilet, blowing your nose, covering a sneeze, etc.
- Whenever hands become obviously soiled
- Before eating, drinking, or handling food



# Standard Precautions

## Hand-Sanitizing

Hand-sanitizing with an alcohol-based hand rub is appropriate when your hands appear to be clean (are not visibly soiled or contaminated with protein matter) but need degerming.

Hand-sanitizing is appropriate:

- Upon entering and exiting patient exam rooms, "Foam in/Foam Out."
- Before and after physical contact with each patient or touching intact skin;
- After touching surfaces or handling contaminated items or equipment such as bedpans, dressings, urinary drainage bags;
- After removing your gloves; and
- When a hand-washing sink is not readily accessible.



# Standard Precautions

## How to Sanitize the Hands

The total time for the hand-sanitizing process, leaving the hands dry enough for gloving, is 15 seconds.

Dispense enough hand sanitizer to wet the hands thoroughly. Rub the hands together, wetting the entire surface of both hands, including the nails. Continue rubbing hands together to facilitate drying. Hand sanitizers should NOT be used with water or rinsed off after application.

Remember! After cleaning your hands, avoid touching surfaces that might be contaminated with germs.



# Standard Precautions

## Engineering Controls

Engineering controls have been put into place by Emory Healthcare to eliminate hazards at their source. Examples of engineering controls include safety device needles, sharps disposal boxes, and autoclaves.



# Standard Precautions

## Work Practice Controls

Proper work practice controls also can help minimize or eliminate hazards in your workplace:

- Clean your hands correctly and at appropriate times.
- Dispose of sharps in proper sharps disposal containers.
- Familiarize yourself with EHC procedures for the handling of contaminated linen. Contaminated linen should be handled, transported, and processed in a manner that prevents:
  - Skin and mucous membrane exposure
  - Contamination of clothing
  - Transfer of microorganisms to other patients or environments



# Standard Precautions

## Work Practice Controls

To help minimize or eliminate hazards, also:

- Do not eat or drink in patient care or laboratory areas.
- Do not apply lip balm or cosmetics, or handle contact lenses, in areas of potential exposure.
- Do not store your lunch or snacks in refrigerators that contain patient nourishments or products used in patient care or medical procedures.
- Do not recap or bend needles.



# Standard Precautions

## Housekeeping Practices

Good housekeeping practices also can help protect you:

- Keep a clean and sanitary workplace.
- Use only approved disinfectants when cleaning contaminated areas or spills.
- Use tongs or forceps to pick up contaminated glass or sharps.
- Recognize containers or bags that have contaminated items in them.
- Recognize the standard BIOHAZARD label (fluorescent orange or orange-red with lettering and symbols in a contrasting color).





# Standard Precautions

## Personal Protective Equipment

Personal protective equipment (PPE) is specialized clothing or equipment worn to protect against a hazard. Examples of PPE include gloves, masks, eye protection, face shields, shoe covers, and lab coats. Emory Healthcare will provide these items if you need them to perform your job, and you will be trained in their use.





# Standard Precautions

## Types of Personal Protective Equipment

**Gloves** should be worn when touching blood, body fluids, secretions, excretions, or other potentially contaminated items.

**Masks, eye protection, face shields, and bench shields** are used to protect the mucous membranes of the eyes, nose, and mouth during procedures and patient-care activities likely to generate splashes or sprays of blood, body fluids, secretions, or excretions.



# Standard Precautions

## Types of Personal Protective Equipment

**Protective clothing** (gowns, hoods, surgical caps, shoe covers, lab coats) should be worn to protect skin and prevent soiling of clothing during procedures and patient-care activities likely to generate splashes or sprays of blood. Body fluids, secretions, and excretions also may soil clothing.

**Barrier devices** such as mouthpieces or pocket masks should be used when performing CPR.

Remember to remove all personal protective equipment before leaving your work area.



# Standard Precautions

## Training

Training on how to protect yourself from blood and body fluid exposure is provided by EHC when you begin your job. This training must be repeated once a year.

EHC will provide additional information, as well as training for new exposure tasks, when new information and training become available.

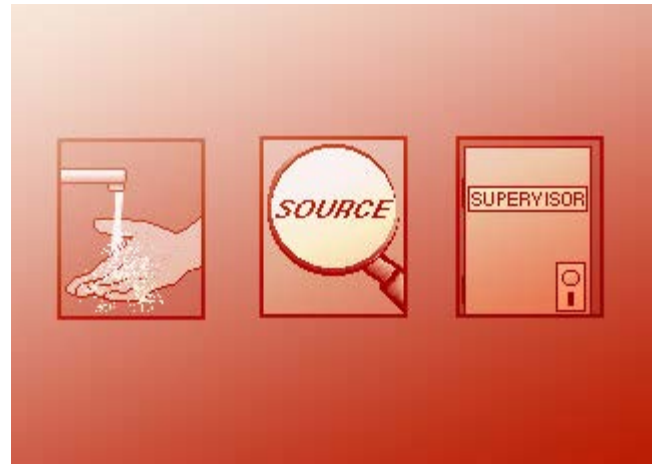


# Standard Precautions

## Exposure Incident

If you are exposed to bloodborne pathogens, remember to **WIN** :

- **W**ash the exposed area immediately with soap and water.
- **I**dentify the source of the exposure.
- **N**otify your supervisor and Occupational Injury Management (OIM) immediately.



# Standard Precautions

## Take Action Quickly

Quick action could lower your chances of contracting a disease. For very high-risk exposures, time can be important to help prevent possible disease transmission.



# Standard Precautions

## Confidential Evaluation

If you are an Emory Healthcare employee who sustains an occupational exposure to blood, other potentially infectious material, tuberculosis, or other communicable diseases, you must notify your supervisor, complete an Employee Incident Report in e-Vantage, and notify Occupational Injury Management. As an Emory employee you will be offered a free, confidential post-exposure evaluation and follow-up coordinated by Employee Health.

A medical exam will be performed by or under the supervision of a licensed physician or other licensed healthcare professional. Any associated laboratory tests will be conducted by an accredited laboratory at no cost to you.



# Standard Precautions

## Elements of the Evaluation

Your confidential medical evaluation and follow-up will consist of the following elements:

- Documentation of the route of exposure and the circumstances under which the exposure occurred
- Identification and documentation of the source individual (unless identification is prohibited by state or local law)
- HIV, HCV, and HBV testing of source patient
- Blood tests will be performed on you according to Occupational Injury Management Protocols

</





# Standard Precautions

## Elements of the Evaluation

The following elements also are part of every post-exposure follow-up:

- Consideration for post-exposure prophylaxis
- Counseling
- Evaluation of reported illnesses

OIM (Occupational Injury Management) will obtain and provide the employee with a copy of the evaluating healthcare professional's written report within 15 days of completion of the evaluation.

## Standard Precautions: Course Completed!

Thank you for taking time to complete this course. Please exit the course now and take the exam to get credit for the course.

