

ENVIRONMENT, HEALTH, AND SAFETY

QUICK REFERENCE GUIDE

INCIDENT RESPONSES

IN AN EMERGENCY

Dial **911**

BIOLOGICAL EXPOSURE

1. Immediately perform first aid at worksite
 - Wash contaminated skin/wound with povidone-iodine, chlorhexidine, or soap and water for 15 minutes
 - Irrigate contaminated eyes and mucous membranes with an eye wash for 15 minutes
2. Notify your supervisor, if he/she is immediately available
3. Report to Occupational Health Services in Building 426, Monday–Friday, 8 a.m.–4:30 p.m.

FIRE EMERGENCIES

When the fire alarm sounds, immediately exit the building and move to the assembly location. Do not return to the building until you have been given an all-clear message.

Prepare for a fire emergency by doing the following:

- Keep stairways, hallways, and exits clear
- Know your exits and participate in fire drills
- Report blocked exits or problems with fire systems, exit signs, or emergency lights to Safety at 301-846-1451

WEATHER EMERGENCIES

Prepare for weather emergencies, including snow, ice, tornados, and hurricanes, by doing the following:

- Sign up for Frederick County emergency weather alerts at <http://www.frederickcountymd.gov/ALERT>
- Know where to take shelter during a tornado warning
- Check for weather-related closings by visiting <http://www.detrick.army.mil> or calling the Protective Services Hotline at 301-846-1444
- Get preparedness information from FEMA at <http://www.ready.gov>

INCIDENTS

Incidents can be many things, including accidental damage to property or equipment, loss of scientific data, spills of biological or hazardous materials, a near miss, or an injury. When an incident happens, do the following:

- Dial 911 if it is an emergency
- Report to OHS in Building 426 if you have an injury
- Notify your supervisor as soon as possible
- Call Protective Services if there is damage to property
- Call EHS at 301-846-1451 for all other incidents

To report a near miss, visit:

<https://ncifrederick.cancer.gov/Ehs/IssueMgmt/Inspection/>



IMPORTANT NUMBERS

Protective Services: 301-846-1091

Protective Services at ATRF: 301-228-4901

Occupational Health Services: 301-846-1096

Safety: 301-846-1451

Visit EHS at <http://ncifrederick.cancer.gov/EHS>

E-mail EHS at EHS@mail.nih.gov

The **Environment, Health, and Safety (EHS)** directorate consists of three main departments:

- **Occupational Health Services**—provides comprehensive health services, medical surveillance for potential occupational exposures, emergency medical response, and treatment for accidental injury or illness.
- **Safety** (includes **Biosafety, Environmental Protection, Fire and Life Safety, Industrial Hygiene, Radiation Safety, and Waste Management**)—maintains and develops safety programs and policies and procedures that comply with all federal, state, and local occupational safety and environmental laws to ensure that employees are working in a safe, healthy, and environmentally friendly workplace.
- **Protective Services**—provides facility security, shuttle services, and response to scientific alarms 24 hours a day, 7 days a week.

OCCUPATIONAL HEALTH SERVICES (OHS)

NCI CAMPUS AT FREDERICK OHS CLINIC

Location: Building 426

Hours: 8 a.m.–4:30 p.m.

Telephone: 301-846-1096

Fax: 301-846-6150

E-mail: NCI-FrederickOHS@mail.nih.gov

**For work-related injuries and illnesses occurring after hours, call 301-846-1091 to reach the on-call provider.

EMPLOYEE ASSISTANCE PROGRAM (EAP)

<http://www.bhsonline.com>

Username: NCIF

Telephone: 800-327-2251

ADVANCED TECHNOLOGY RESEARCH FACILITY (ATRF) OHS CLINIC

Location: 8560 Progress Drive, Frederick, MD

Hours: 9:30 a.m.–1 p.m.

Days: Mondays, Wednesdays, and Fridays

Telephone: 301-228-4922

OCCUPATIONAL MEDICAL SERVICES (OMS), NATIONAL INSTITUTES OF HEALTH, BETHESDA, MD

For initial work-related injuries/illnesses for contract employees working on campus, report to:

Location: Building 10, Room 6C306

Hours: Monday–Friday, 7:30 a.m.–5 p.m.

Telephone: 301-496-9822

WORKING WITH:

- **Biological Materials**, call 301-846-1451 to register your research with the Institutional Biosafety Committee, <http://ncifrederick.cancer.gov/ehs/ibc>
- **Radioactive Materials**, call 301-846-1451 to enroll in a radiation program
- **Animals**, contact the Animal Care and Use Committee at <http://ncifrederick.cancer.gov/lasp/acuc/default.aspx>

Call EHS at 301-846-1451 or visit <http://ncifrederick.cancer.gov/EHS>

WASTE MANAGEMENT

RECYCLING PROGRAM

For more information, visit <https://ncifrederick.cancer.gov/Ehs/WasteManagement/Recycling/Default.aspx>, or call 301-846-5718.

- Place office paper, cardboard, plastic bottles, rinsed aluminum cans, newspaper, glass bottles and jars, and journals and books in recycling bins.
- Laboratory containers may or may not be recyclable—contact Waste Management for more information.
- Waste Management can temporarily provide additional containers if you are recycling a large amount of papers, journals, or other materials.

SURPLUS CHEMICALS

- Get unused chemicals for free from the Frederick National Laboratory for Cancer Research's surplus chemical inventory: <http://ncifrederick.cancer.gov/Ehs/SurplusChemicals>.
- EHS has unopened, shelf-stable chemicals available for no charge—acids, bases, solvents, cleaners, and other commonly used chemicals.

NCI AT FREDERICK—SINKS AND DRAINS

For more information about sanitary sewer disposal guidelines for NCI at Frederick, visit <https://ncifrederick.cancer.gov/Ehs/WasteManagement/>.

- Contact Waste Management BEFORE pouring any laboratory or maintenance chemicals down the drain.
- Do not store hazardous chemicals next to sinks.
- In rooms with floor drains, chemicals in five-gallon containers or larger must be kept in secondary containment.
- Securely close chemical container lids or caps when chemicals are not in use.
- Do NOT dispose of ANY radioactive material into sinks—it is strictly prohibited.

BIOHAZARDOUS WASTES

For more information about chemical, radioactive, and biohazardous wastes, visit <https://ncifrederick.cancer.gov/Ehs/WasteManagement/>. Contact Waste Management for waste pickup.

- Autoclave any pathogenic, infectious materials—use autoclave bags and tape.
- Chemically disinfect infectious liquids.
- Use biohazard boxes to dispose of anything that might poke through a plastic bag.

- Use a red bag for gloves, bench-kote, plastics, or other materials that will not rip the bag.

At the ATRF, see the Sharepoint site for disposal of these items, or contact the EHS associate safety officer at 301-846-6082.

CHEMICAL WASTE

- Know which chemicals in your lab are hazardous—use the Safety Data Sheets or contact Waste Management.
- Store hazardous wastes in a safety carboy or other container—contact Waste Management for containers.
- Place a hazardous waste tag on the waste container right away.

RADIOACTIVE WASTE

Use waste logs or put radioactive waste tags on all radioactive wastes—no matter how short the half-life is.



SAFETY DATA SHEETS (SDS), FORMERLY MATERIAL SAFETY DATA SHEETS (MSDS)

Must include the following:

- Section 1:** Identification, identifiers, manufacturer information, emergency phone #, general usage
- Section 2:** Hazard identification(s), hazard classification, signal word(s), hazard statement, pictogram, other hazards, % of unknown hazards
- Section 3:** Composition, information on ingredients, chemical name, synonyms, CAS #, impurities and mixtures
- Section 4:** First aid measures, immediate care, symptoms and effects
- Section 5:** Firefighting measures
- Section 6:** Accidental release measures, clean-up and emergency procedures
- Section 7:** Handling and storage
- Section 8:** Exposure controls and personal protective equipment (PPE)
- Section 9:** Physical and chemical properties
- Section 10:** Stability and reactivity
- Section 11:** Toxicological information; routes of exposure; delayed, immediate, chronic effects; numerical measure of toxicity; carcinogen listing
- Section 12:** Ecological information (non-mandatory)
- Section 13:** Disposal considerations (non-mandatory)
- Section 14:** Transport information (non-mandatory)
- Section 15:** Regulatory information (non-mandatory)
- Section 16:** Other information, when created, and last revision

For more information or for quick reference cards in English and Spanish, go to: <http://www.osha.gov/dsg/hazcom/index.html>.

If you have any questions or want a GHS-compliant SDS template, call EHS at 301-846-1451.

GLOBALLY HARMONIZED SYSTEM (GHS) THE REVISED HAZARD COMMUNICATION STANDARD (HCS)

HAZARD CLASSIFICATION

Chemical manufacturers and importers are required to determine the hazards of the chemicals they produce or import. Hazard classification under the new, updated standard provides specific criteria to address health and physical hazards as well as classification of chemical mixtures.

SAMPLE LABEL

PRODUCT IDENTIFIER

CODE _____
Product Name _____

SUPPLIER IDENTIFICATION

Company Name _____
Street Address _____
City _____ State _____
Postal Code _____ Country _____
Emergency Phone Number _____

HAZARD PICTOGRAMS

SIGNAL WORD
Danger

HAZARD STATEMENT
Highly flammable liquid and vapor.
May cause liver and kidney damage.

SUPPLEMENTAL INFORMATION

Directions for use _____

Fill weight: _____ Lot Number _____
Gross weight: _____ Fill Date: _____
Expiration Date: _____

PRECAUTIONARY STATEMENTS

Keep container tightly closed. Store in cool, well ventilated place that is locked.
Keep away from heat/sparks/open flame. No smoking.
Only use non-sparking tools.
Use explosion-proof electrical equipment.
Take precautionary measure against static discharge.
Ground and bond container and receiving equipment.
Do not breathe vapors.
Wear Protective gloves.
Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.
Dispose of in accordance with local, regional, national, international regulations as specified.

In Case of Fire: use dry chemical (BC) or Carbon dioxide (CO₂) fire extinguisher to extinguish.

First Aid
If exposed call Poison Center.
If on skin (on hair): Take off immediately any contaminated clothing. Rinse skin with water.

Label elements include:

- **Product identifier**—chemical ID—chemical name, code # or batch #. The same ID must be on Section 1 of the SDS.
- **Name, address, and phone number** of the chemical manufacturer, distributor, or importer.
- **Precautionary statement(s)**—a phrase that describes recommended measures that should be taken for safety.
*For each hazard class and category.
- **Pictogram**—shape of a square set at a point; include a black hazard symbol on a white background with red frame. OSHA designates 8 pictograms (below).
*For each hazard class and category.
- **Signal word**—relative severity—“Danger” for more severe hazards and “Warning” for less severe hazards. If two levels, then most severe word is used.
*For each hazard class and category.
- **Hazard Statement(s)**—describes the nature of the hazard(s), including the degree of hazard. The statements are specific to the classification categories; always use the same statement for the same hazards.
*For each hazard class and category.

GHS PICTOGRAMS



Health Hazard

- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity



Flame

- Flammables
- Pyrophorics
- Self-Heating
- Emits Flammable Gas
- Self-Reactives
- Organic Peroxides



Exclamation Mark

- Irritant (skin and eye)
- Skin Sensitizer
- Acute Toxicity
- Narcotic Effects
- Respiratory Tract Irritant
- Hazardous to Ozone Layer (Non-mandatory)



Gas Cylinder

- Gases Under Pressure



Corrosion

- Skin Corrosion/Burns
- Eye Damage
- Corrosive to Metals



Exploding Bomb

- Explosives
- Self-Reactives
- Organic Peroxides



Flame Over Circle

- Oxidizers



Environment

- Aquatic Toxicity (Non-mandatory)



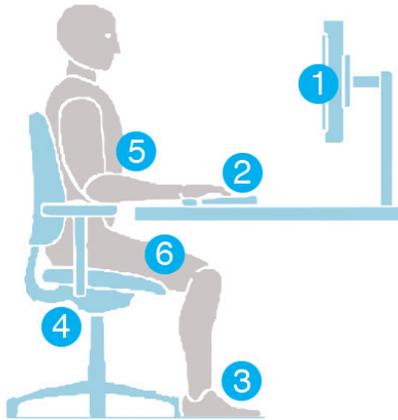
Skull and Crossbones

- Acute Toxicity (fatal or toxic)

INDUSTRIAL HYGIENE

OFFICE ERGONOMICS

1. Position the top of the monitor casing 2–3” above eye level. The monitor should be slightly lower if you are utilizing progressive lenses. Center the monitor and keyboard in front of you. If you are using dual monitors, both monitors should be positioned at the same height, with your work centered between the two.
2. Use an adjustable keyboard tray, if needed, along with a wrist rest. No tray is needed if wrists and elbows are at 90°. Wrists should remain in a neutral or slightly negative position. Avoid using keyboard feet or tilting your keyboard.
3. Feet should rest firmly on the ground; use a footrest if needed.
4. Use a supportive and fully adjustable chair. Adjust the back rest to accommodate the normal curve of the lower spine, and sit back in the chair.
5. Arms should be relaxed and positioned close to the body, with elbows located at 90°. Bring the work closer to you to prevent/reduce reaching.
6. Thighs should be parallel to the floor, and the seat pan should be short enough for knee clearance. Knees should be at 90°.



Contact EHS at 301-846-1451 for more information on ergonomics and ergonomic products. EHS can schedule an ergonomic evaluation of laboratory, animal, office, or industrial work processes, as well as provide loaner examples of equipment such as computer mice or pipettes.

PROTECTIVE SERVICES

NCI at Frederick: 301-846-1091
 ATRF: 301-228-4901
 Vaccine Pilot Plant: 301-228-4083

Protective Services is available 24 hours a day, 7 days a week, to assist you with the following:

- PIV badges (301-846-4500 or 301-846-4501)
- Employee identification cards (301-228-4629)
- Other access control system concerns (301-846-6372)
- After-hours emergency response and maintenance
- Government vehicle accident reports
- Special checks of your lab when you work irregular hours
- Escort to your car and jumper cables for loan
- Lost and found
- Scientific alarms and personnel notification

Call the Protective Services hotline at 301-846-1444 for the following information:

- Base closings
- Shuttle delays
- Power failure information
- Other NCI at Frederick emergencies



SHUTTLE SCHEDULE

FREDERICK NATIONAL LAB/NIH SHUTTLE SCHEDULE

For more information, call Protective Services at 301-846-1091.

NCI at Frederick Building 426	NIH Building 45	NIH Building 31	NIH Building 10	NCI at Frederick Building 426
Departs	Departs	Departs	Departs	Arrives
7:00 a.m.	8:20 a.m.	8:25 a.m.	8:30 a.m.	9:20 a.m.
9:55 a.m.	10:45 a.m.	10:50 a.m.	10:55 a.m.	11:55 a.m.
12:30 p.m.	1:20 p.m.	1:25 p.m.	1:30 p.m.	2:30 p.m.
3:30 p.m.	4:20 p.m.	4:25 p.m.	4:30 p.m.	5:35 p.m.

Passengers should note that:

- Two photo IDs are required to enter Fort Detrick.
- The shuttle must leave on time; plan to be at your departure point 5–10 minutes early.
- Inclement weather may affect service; check the shuttle status by calling ahead.
- Service to NCI-Shady Grove is only available upon request.
- Hazardous materials, including biological samples, radioisotopes, chemicals, and dry ice, **cannot** be transported. If you need to ship hazardous materials to Frederick, go to the Frederick National Lab Shipment Wizard page: <http://ncifrederick.cancer.gov/campus/safety/wizard>.

ADVANCED TECHNOLOGY RESEARCH FACILITY (ATRF) SHUTTLE SCHEDULE

The shuttle will pick up passengers from Riverside 5 by request only. To arrange for pickup, call Protective Services at 301-846-1091.

NCI at Frederick	ATRF	ATRF	NCI at Frederick
Departs	Arrives	Departs	Arrives
		6:30 a.m.*	6:50 a.m.
9:00 a.m.	9:20 a.m.	9:30 a.m.	9:50 a.m.
11:00 a.m.	11:20 p.m.	11:30 p.m.	11:50 p.m.
1:00 p.m.	1:20 p.m.	1:30 p.m.	1:50 p.m.
3:00 p.m.	3:20 p.m.	3:30 p.m.	3:50 p.m.

*6:30 a.m. shuttle by request only