

Safety Overview

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Topics

- EHS&Q Rights and Responsibilities
- EHS&Q Resources
- Hazard Identification
- General Emergency Procedures
- General Hazards On-Site

“No activity can be considered so urgent or so important that our safety or environmental protection may be compromised.”

Hugh Montgomery, Director

Every person at Jefferson Lab has a
right to a safe workplace
and an obligation to inform line
management when he or she
considers a condition to be unsafe.

Your Responsibilities

- STOP if you don't know what you are doing:
 - Ask for assistance or information
 - Notify your supervisor/mentor if you feel unqualified to perform an assigned task or you believe it is unsafe
- Pay attention:
 - Written instructions
 - What you are doing, especially during novel or repetitive tasks
 - Your co-workers (Avoid working alone)
 - Your surroundings, especially when entering an unfamiliar area
- Report and correct unsafe conditions
- Report all work related injuries (even minor) and near misses

Your Mentor's Responsibilities

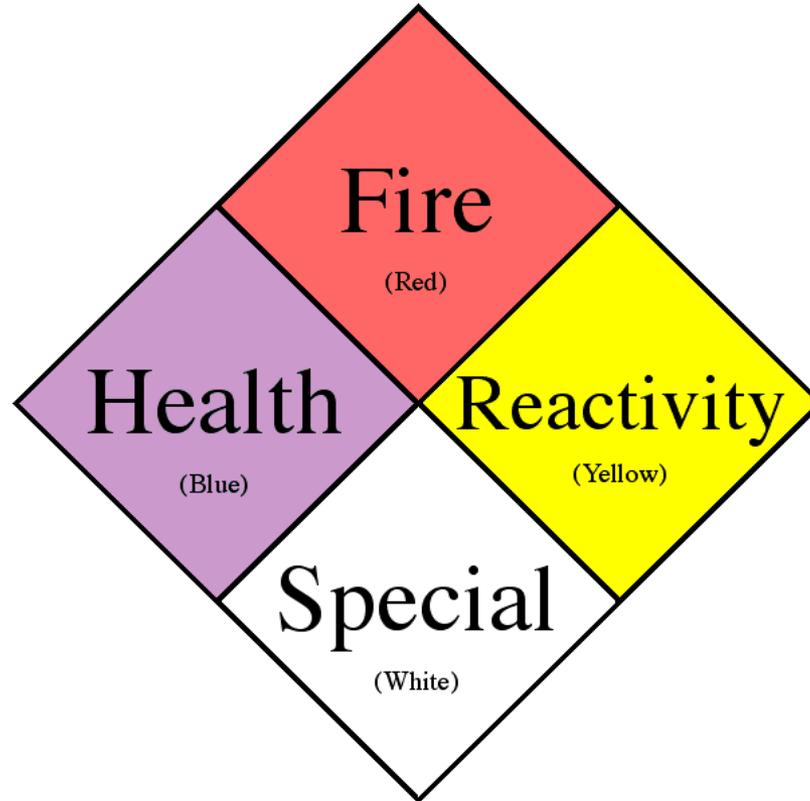
- Provide a safe workplace
- Inform you about hazards and how to function safely in your work area
- Resolve expressed EHS&Q concerns promptly

Hazard Identification

- Signs
- Postings
- Written Instructions

The NFPA Safety Diamond

- Gives an ‘at a glance’ rating of a substance’s relative hazard



- Hazards are ranked on a scale from 0 to 4
 - 0 - no hazard
 - 4 - **extreme** hazard



WD-40®



MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Manufacturer: WD-40 Company	Telephone: 1 (800) 424-9300 (CHEMTREC)
Address: 1061 Cudahy Place (92110) P.O. Box 80607 San Diego, California 92138-0607	Emergency Only: (619) 275-1400
	Information: Organic Mixture
	Trade Name: WD-40 Aerosol
	Item No. 10002, 10005, 10008, 10011, 10013, 10016, 10023

II. HAZARDOUS INGREDIENTS

Chemical Name	CAS Number	%	Exposure Limit ACGIH/OSHA
Aliphatic Petroleum Distillates	8052-41-3	60-70	100 ppm PEL
Petroleum Base Oil	64742-65-0	15-25	5 mg/M ³ TWA (mist)
Carbon Dioxide	124-38-9	2-3	5000 ppm PEL
Non-hazardous Ingredients		<10	

III. PHYSICAL DATA

Boiling Point:	NA	Evaporation Rate:	Not determined
Vapor Density (air = 1):	Greater than 1	Vapor Pressure:	110 ±5 PSI @ 70°F
Solubility in Water:	Insoluble	Appearance:	Light amber
Specific Gravity (H ₂ O = 1):	0.816 @ 70°F	Odor:	Characteristic odor
Percent Volatile (volume):	70%		

IV. FIRE AND EXPLOSION

Flash Point:	Tag Open Cup 110°F (minimum)
Flammable Limits:	(Solvent Portion) [Lel] 1.0% [Uel] 6.0%
Extinguishing Media:	CO ₂ , Dry Chemical, Foam
Special Fire Fighting Procedures:	Contents Under Pressure
Unusual Fire and Explosion Hazards:	FLAMMABLE – U.F.C. level 3 AEROSOL

V. HEALTH HAZARD / ROUTE(S) OF ENTRY

Threshold Limit Value	Aliphatic Petroleum Distillates (Stoddard solvent) lowest TLV (ACGIH 100 ppm.)
Symptoms of Overexposure	
Inhalation (Breathing):	May cause anesthesia, headache, dizziness, nausea and upper respiratory irritation.
Skin Contact:	May cause drying of skin and/or irritation.
Eye Contact:	May cause irritation, tearing and redness.
Ingestion (Swallowed):	May cause irritation, nausea, vomiting and diarrhea.
First Aid Emergency Procedures	
Ingestion (Swallowed):	Do not induce vomiting, seek medical attention.
Eye Contact:	Immediately flush eyes with large amounts of water for 15 minutes.
Skin Contact:	Wash with soap and water.
Inhalation (Breathing):	Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.
	Pre-existing medical conditions such as eye, skin and respiratory disorders may be aggravated by exposure.
DANGER!	
Aspiration Hazard:	If swallowed, can enter lungs and may cause chemical pneumonitis. Do not induce vomiting. Call Physician immediately.
Suspected Cancer Agent	
Yes _____ No <u>X</u>	The components in this mixture have been found to be noncarcinogenic by NTP, IARC and OSHA.

VI. REACTIVITY DATA

Stability:	Stable <input checked="" type="checkbox"/>	Unstable _____
Conditions to avoid:	NA	
Incompatibility:	Strong oxidizing materials	
Hazardous decomposition products:	Thermal decomposition may yield carbon monoxide and/or carbon dioxide.	
Hazardous polymerization:	May occur _____	Will not occur <input checked="" type="checkbox"/>

VII. SPILL OR LEAK PROCEDURES

Spill Response Procedures

Spill unlikely from aerosol cans. Leaking cans should be placed in plastic bag or open pail until pressure has dissipated.

Waste Disposal Method

Empty aerosol cans should not be punctured or incinerated; bury in land fill. Liquid should be incinerated or buried in land fill. Dispose of in accordance with local, state and federal regulations.

VIII. SPECIAL HANDLING INFORMATION

Ventilation:	Sufficient to keep solvent vapor less than TLV.
Respiratory Protection:	Advised when concentrations exceed TLV.
Protective Gloves:	Advised to prevent possible skin irritation.
Eye Protection:	Approved eye protection to safeguard against potential eye contact, irritation or injury.
Other Protective Equipment:	None required.

IX. SPECIAL PRECAUTIONS

Keep from sources of ignition. Avoid excessive inhalation of spray particles, do not take internally. Do not puncture, incinerate or store container above 120°F. Exposure to heat may cause bursting. Keep can away from electrical current or battery terminals. Electrical arcing can cause burn-through (puncture) which may result in flash fire, causing serious injury. Keep from children.

X. TRANSPORTATION DATA (49 CFR 172.101)

Domestic Surface

Description:	Consumer Commodity
Hazard Class:	ORM-D
ID No.:	NONE
Label Required:	Consumer Commodity (ORM-D)

Domestic Air

Description:	Consumer Commodity (Non-Flammable Gas – Aerosol)
Hazard Class:	ORM-D
ID No.:	NONE
Label Required:	Consumer Commodity (ORM-D-AIR)

XI. REGULATORY INFORMATION

All ingredients for this product are listed on the TSCA inventory.

SARA Title III chemicals:	None
California Prop 65 chemicals:	None
CERCLA reportable quantity:	None
RCRA hazardous waste no.:	D001 (Ignitable)

SIGNATURE:  TITLE: Technical Director

REVISION DATE: March 1998 SUPERSEDES: June 1996

NA = Not applicable

NDA = No data available

< = Less than

> = More than

We believe the statements, technical information and recommendations contained herein are reliable. However, the data is provided without warranty, expressed or implied. It is the user's responsibility both to determine safe conditions for use of this product and assume loss, damage or expense, direct or consequential, arising from its use. Before using product, read label.

MSDS-A

Written Instructions

- Operational Safety Procedures (OSP) *formal*
 - Provides a means for defining operating procedures and EHS&Q techniques to be used in dealing with unusual hazards
- Temporary OSP (TOSP)
 - Provides a means for planning and approving special, usually short-term or first-time tasks to ensure they are conducted safely
- Standard Operating Procedures (SOP) *informal*
 - Provides a means of propagating sound operational procedures and EHS&Q techniques for routine operations and dealing with common hazards
 - Includes quantitative performance measures for assessing work

Resources at Your Disposal

- Supervisor/Mentor
- EHS&Q Specialists
- Jefferson Lab EHS&Q Manual
- Material Safety Data Sheet (MSDS)
- Safety Procedures
- Jefferson Lab Safety Lab (Trailer 35)

Other EHS&Q Training

Depending on your specific duties, you may be required to complete additional EHS&Q training courses. Successful completion of this training course gives you certification in:

- General EHS&Q Overview/Hazard Awareness
- Fire Safety Level 1
- Oxygen Deficiency Hazards (ODH)
- General Employee Radiological Training

General Emergency Procedures

Remember: Minimize the risk to yourself

Help as your training or knowledge permits

Notify the authorities and experts ASAP

- Take situation-specific actions

Evacuate

Notify Co-workers

De-energize Power Sources and Contain Spills (only with proper training)

- Call 911 if ambulance, police or fire response is needed
- Call Jefferson Lab Security (x5822 / 1-757-269-5822)
- Notify your supervisor
- Notify Divisional EHS&Q Personnel

Occupational Safety and Health Services

Building 28 VARC, Room 22

x7539

Hours

Monday - Friday 8:00 a.m. - 5:00 p.m.

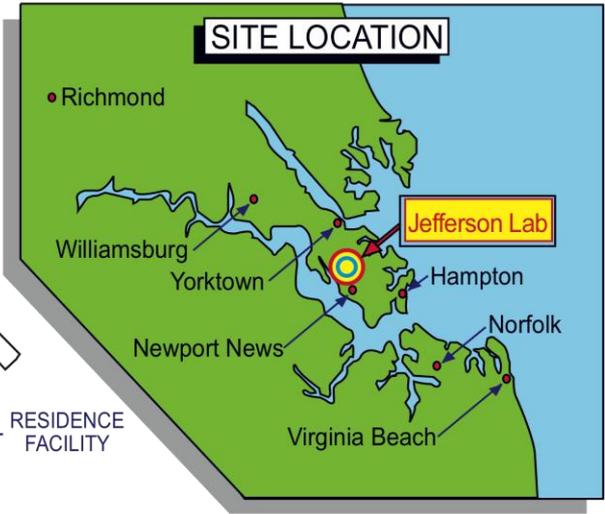
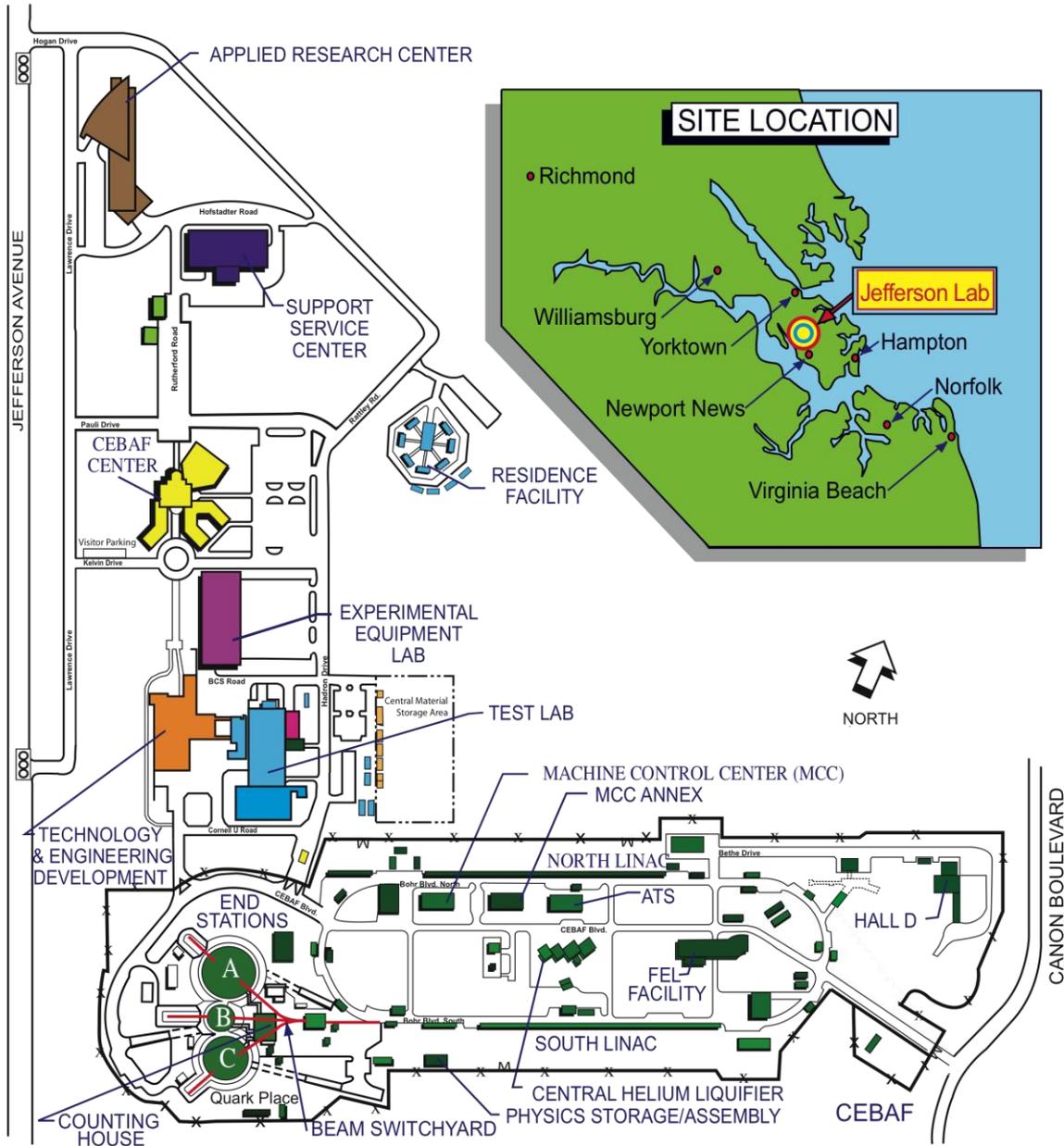
Except for a one hour lunch period

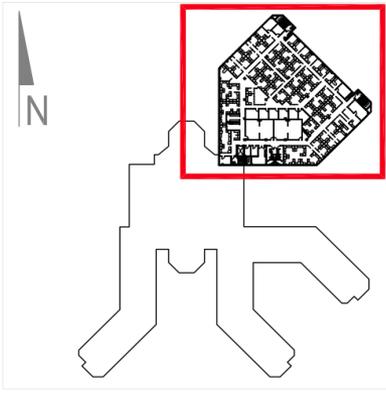
First Aid kits are available throughout the site

Remember:

- Please don't get hurt
- If you do get hurt, you must notify the clinic, your mentor and Steve Gagnon

SITE PLAN





LOCATION MAP



SEVERE WIND "TAKE COVER" AREAS
LOCATED ON LOWER FLOORS

**CEBAF CENTER
BUILDING 12, FLOOR 3
F WING
EMERGENCY PLAN**

IN CASE OF FIRE:

- STAY CALM
- WALK, DO NOT RUN
- CLOSE YOUR DOOR
- ACTIVATE NEAREST PULL BOX, FOLLOW ARROWS IN DIAGRAM, & MEET AT MUSTER POINT

IN CASE OF SEVERE WIND:

IF A TORNADO WARNING IS ISSUED BY THE NATIONAL WEATHER SERVICE, AND JLAB IS WITHIN THE WARNING AREA, MOVE QUICKLY TO ONE OF THE DESIGNATED SEVERE WIND "TAKE COVER" AREAS.

LEGEND

- EGRESS PATH
- FIRE EXTINGUISHER
- FIRE ALARM PULL STATION
- SEVERE WIND "TAKE COVER" AREA
- MUSTER POINT

REVISED: JULY 2011



General Hazards Overview

- Common Hazards
 - Fire
 - Traffic
 - Office Safety
 - Severe Weather
 - Industrial Activities
- Jefferson Lab Specific Hazards
 - Electrical Safety/Lock, Tag and Try
 - Chemicals
 - Cryogenics
 - Oxygen Deficiency Hazard (ODH)
 - Ionizing and non-ionizing radiation

Fire

Fires can break out anywhere on site. They can be caused by welding, electrical problems, chemical reactions and by other means. Most buildings are equipped with fire alarms, sprinklers and fire extinguishers, where appropriate.

In case of fire:

- Notify co-workers as you vacate the area
- Pull the nearest fire alarm
- Call 911
- Call Security at x5822 or 1-757-269-5822
- DO NOT RISK YOUR LIFE to put out the fire
- Evacuate to the Muster Point

Evacuation plans are posted in each building.

Become familiar with two evacuation routes from your work area.

Traffic

- Obey the posted speed limits
- Wear seat belts if they are installed in the vehicle you are driving
- The entire Lab is a no passing zone – do not pass a motorized vehicle unless they stop and allow it
- Yield to pedestrians.
- You may pass a “person powered” vehicle if you can do it safely
- Bicycles and golf carts must also obey the rules of the road
- Bicyclists must wear helmets (ask your mentor, they are available in the stock room)
- Observe special care in parking lots

Office Safety

- Proper lighting and ventilation
- Check for faulty electrical cords
- Check for trip hazards
- Proper use and storage of chemicals (such as “white out,” cleaners and copier supplies)
- Proper use of paper cutters, scissors, staplers, etc...
- Don't use chairs as ladders
- Don't store chemical products in food/beverage refrigerators

Severe Weather

Notification of severe weather conditions is provided by weather alert radios, site-wide pages/texts/emails and emergency siren.

Thunderstorms

- Position yourself to avoid lightning exposure

Tornadoes (we have an LOUD site-wide siren)

- Protect yourself from winds and falling objects, assemble in Severe Wind/Take Cover Areas

- If caught outside, lie down in the nearest depression or ditch

Hurricanes

- Follow preparation information from Jefferson Lab and local government agencies

High or Low Temperatures

- Minimize outdoor exposure, dress appropriately and stay hydrated

Industrial Activities

Stay out of areas where industrial activities are underway

- Materials handling (cranes, rigging and forklifts)
- Civil construction
- Shop machinery
- Welding

Never position yourself or allow yourself to be located between a moving or suspended load and the floor!

Hazardous Chemicals

How do I avoid them?

- Stay out of posted or barricaded areas unless accompanied by an authorized person
- Review the MSDS sheet for unfamiliar chemicals
- Be aware of the NFPA safety diamond