

# Basic Safety

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Preparation for NCCER Exam 00101-15

# Responsibility

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- The ultimate responsibility for on-the-job safety rests with **you**.
- ***Everyone*** is responsible for safety.



# Safety Signs

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- Yellow signs with a black panel with yellow letters are **caution** signs.



# Workplace Conditions

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- Poor housekeeping, excessive noise, and inadequate guards are **unsafe conditions**.



# Qualified Persons

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- Someone who has the knowledge and experience to handle problems is a **qualified person**.

# On-the-Job Events

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- There are **three** categories of on-the-job events.
  - Incidents. It could have happened
  - Accidents It did happen
  - Injuries Someone got hurt.



# Welding

- In welding, the **cylinders** containing oxygen and acetylene must be stored upright and separated by metal.



# Fire

- Flash burns can cause serious eye damage.
- *Never* wear **contact lenses** when welding.





# Cutting Torch

- Always use a friction striker to light a **cutting torch**.



# Welding

- You must check three things before and during welding operations: hoses, regulators, and **the work area**.





# Color Coding

- The color of the oxygen hose is **green**.



# Fumes

- Because heating and cutting metals can create **toxic fumes**.
- Always perform heating and cutting operations in a well-ventilated area.





# Proximity to Hazards

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- Work that takes place near a hazard but *not* in direct contact with it is called **proximity** work.

# Lockout/Tagout

- A **lockout**/tagout system protects workers from hazardous energy while they work with machines and equipment.





# Color Coding

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- A red barricade in a work area indicates danger from **falling objects** or a **load suspended over an area**.



# Barricades

- Posts and chain, steel cable, and **wooden rails** are acceptable materials for protective barricades.





# Hard Hats

- Most hard hats are now made of **fiberglass**.





# Person Protective Equipment



- You must never **alter or modify** your personal protective equipment.





# Safety Harness

- The lanyard on a safety harness must be short enough to prevent you from falling more than **6** feet.



# Person Protective Equipment

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- To prevent ear infections, clean your earplugs regularly with **soap and water**.





# Person Protective Equipment

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- To protect against brief exposure to gas or fumes, use **full facepiece masks with chemical canisters.**



# Ladders

- A Type 1A ladder is rated for **300 lbs., extra heavy duty/professional.**





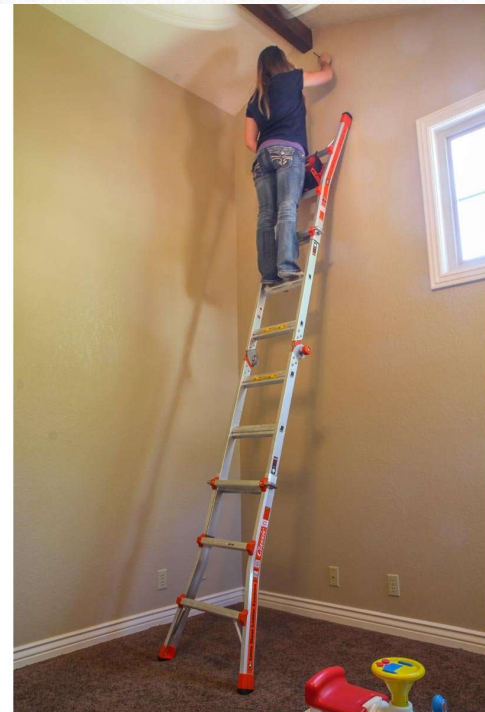
# Ladders

- If you are going to step off a ladder onto a platform or roof, the top of the ladder should extend at least **3** feet above the point where the ladders touches the platform or roof.



# Ladders

- The highest safe standing level on an extension ladder is the **fourth** rung from the top.





# Hazardous Materials

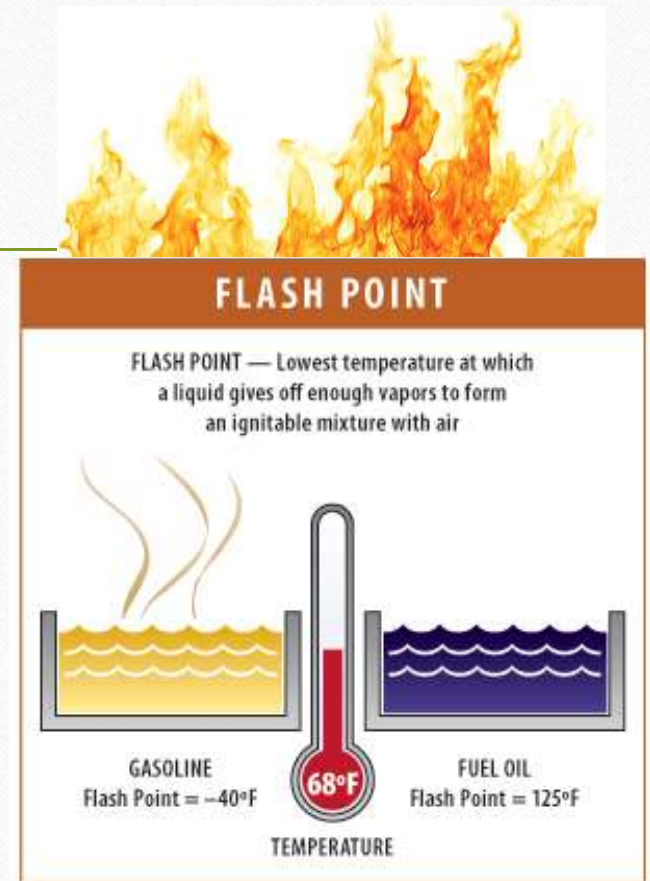
## Material Safety Data Sheets

- Every shipment of a hazardous substance must be accompanied by an **MSDS**, which must be made available on the job site.

<b>FLINN SCIENTIFIC INC.</b> "Your Safer Source for Science Supplies" <b>Material Safety Data Sheet (MSDS)</b>		MSDS #: 420.00 Revision Date: March 14, 2001
<b>Section 1 — Chemical Product and Company Identification</b>		
<b>Isopropyl Alcohol</b>  Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261 CHEMTREC Emergency Phone Number: (800) 424-9300		
<b>Section 2 — Composition, Information on Ingredients</b>		
Isopropyl Alcohol Synonym: 2-propanol, rubbing alcohol CAS#: 67-63-0		
<b>Section 3 — Hazards Identification</b>		
Clear colorless liquid; distinctive odor; like rubbing alcohol. Irritant to body tissues. Slightly toxic by ingestion, inhalation, and skin absorption. The single lethal dose for a human adult is about 250 mL, although as little as 100 mL can be fatal. Class 1B flammable liquid.	<b>FLINN AT-A-GLANCE</b> Health-1 Flammability-3 Reactivity-1 Exposure-1 Storage-3  0 is low hazard, 3 is high hazard	
<b>Section 4 — First Aid Measures</b>		
Call a physician, seek medical attention for further treatment, observation and support after first aid. Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately. Eye: Immediately flush with fresh water for 15 minutes. External: Wash continuously with fresh water for 15 minutes. Internal: Induce vomiting. Call a physician or poison control at once.		
Source: MSDS, Flinn Scientific		

# Fire

- Heat is anything that will raise a fuel's temperature to the **flash** point.





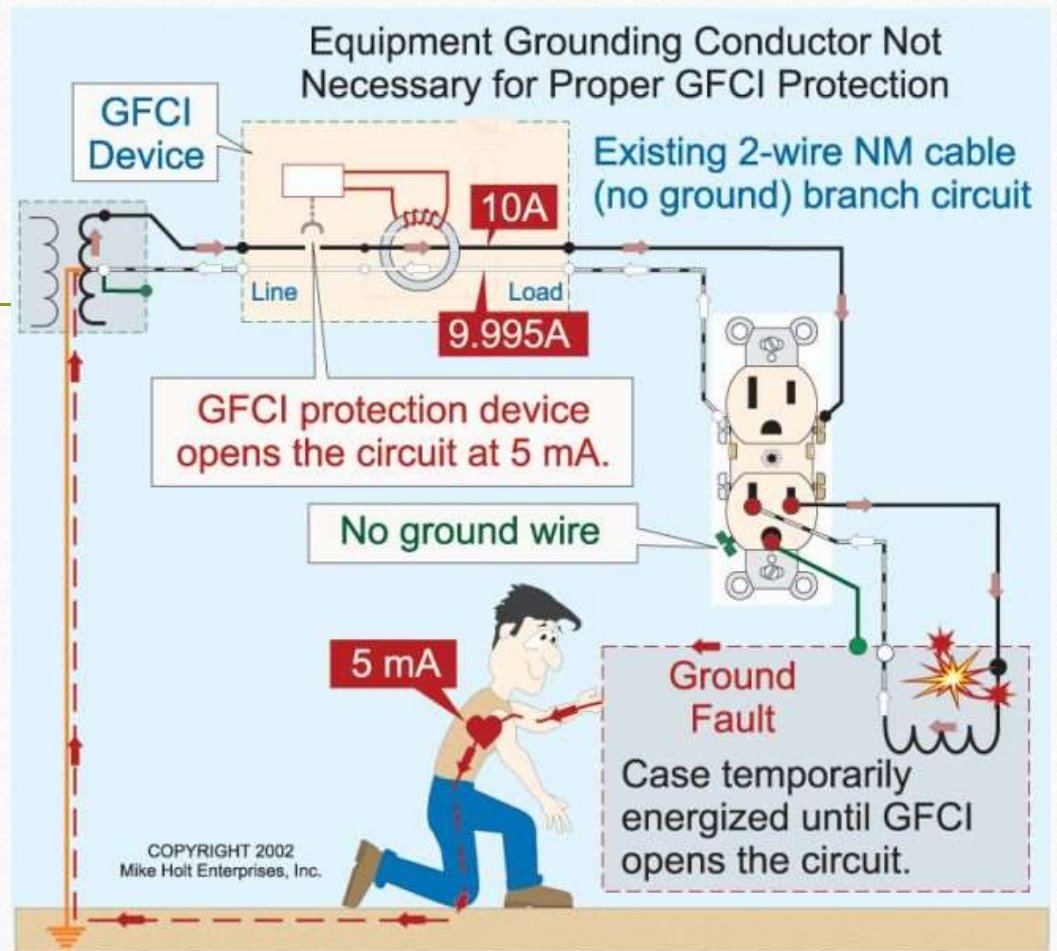
# Fire Extinguishers

- Never remove the tags from a fire extinguisher.
- These tags show **when the fire extinguisher was last serviced and inspected.**



# Electricity

- If an electrical current *cannot* complete the circuit, it will try to go to the **ground**.





# Electricity

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- Every electrical cord should have a **UL** label attached to it.



# Electricity

- One of the most common safety grounding systems used to protect you from accidental electrical shock is the **three-wire** system.





# Electricity

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- One basic job site electrical safety guideline is to use only a **concealed receptacle** for plugs.

