

Hazardous Materials Signs & Labels

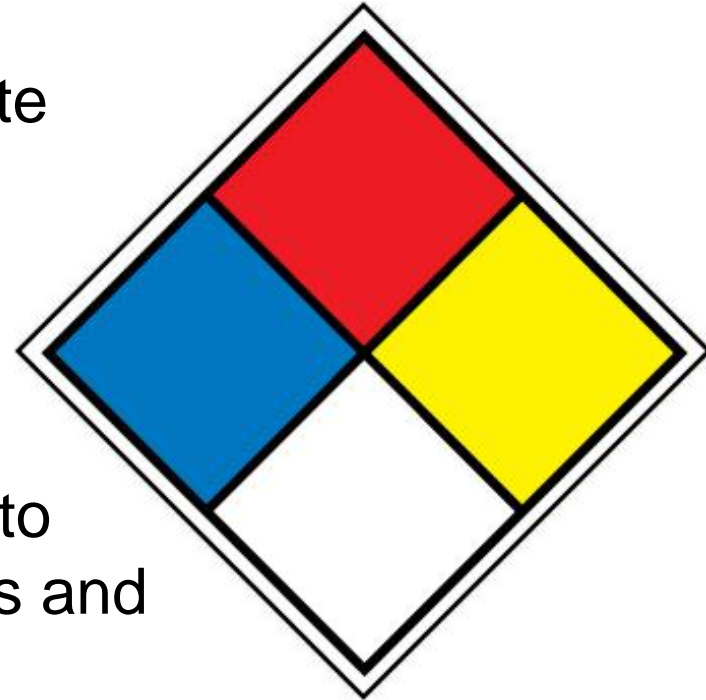
Field Overview

- Hazardous chemicals can cause cancer and other illnesses
- Hazardous chemicals can be explosive, flammable and combustible
- Improper care can result in serious injury or death
- Properties of substances need to be communicated to employees in order to take proper precautions
- Emergency personnel need to be aware of substance properties

NFPA Hazard Diamonds

NFPA 704

- 4 colored diamond provides immediate information about hazards
 - Numerical ratings from 0 – 4
 - Zero = minimal hazard
 - 4 = severe hazard
- Allows handlers and first responders to quickly identify hazardous substances and prepare adequate precautions



Health Hazard	Potential for personal injury due to contact with or inhalation of substance
Flammability	Potential for substance to burn
Instability	Potential for substance to release energy (explosions)
Special Hazards	Indicates whether the substance is explosive upon contact with water, or has a potential to be combustible when in contact with oxygen

NFPA Diamonds

NFPA 704

- Signs shall be placed
 - Two primary entrances to the facility
 - Every entrance to the room/area
 - Every principle means of accessing the exterior storage area
 - Other locations AHJ specifies

Distance at which hazard ratings are legible	Minimum size of hazard ratings required
50ft	1in
75ft	2 in
100 ft	3 in
200ft	4 in
300ft	6 in

NFPA 704 Figure 9.1(c)

Hazard Communication

OSHA 29 CFR 1900.1200 (HMIG)

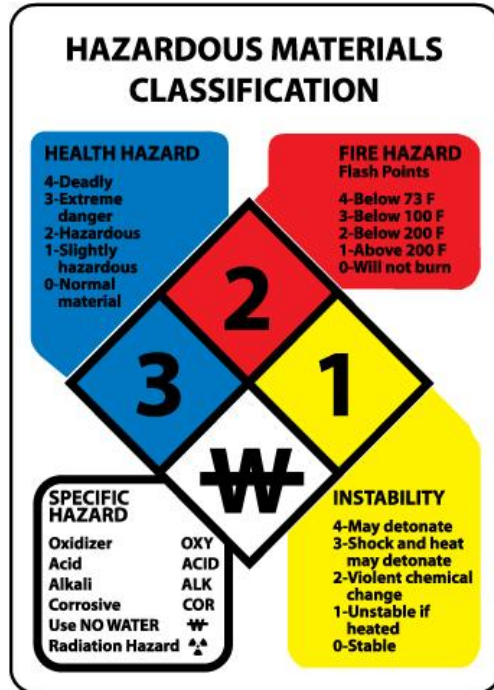
- Each container of hazardous chemicals leaving the workplace must be labeled, tagged or marked with the following information:
 - Identity of the hazardous chemical(s)
 - Appropriate hazard warnings
 - Name and address of the chemical manufacturer, importer, or other responsible party
- Warnings must be prominently displayed
- Warnings may contain words, symbols or a combination of both
- Labels for immediate warning, MSDS information must be available with hazardous chemicals

CHEMICAL NAME	PERSONAL PROTECTION INDEX	
HEALTH	A	G
FLAMMABILITY	B	H
INSTABILITY	C	I
PPE	D	J
	E	K
	F	X Ask your supervisor for special handling instructions.

CHEMICAL NAME	
HEALTH	CHECK OFF APPROPRIATE BOXES ROUTE OF ENTRY <input type="checkbox"/> INHALATION <input type="checkbox"/> SKIN RESORPTION <input type="checkbox"/> INGESTION <input type="checkbox"/> SKIN EYE CONTACT HEALTH HAZARDS <input type="checkbox"/> HIGH HEALTH HAZARD <input type="checkbox"/> IRRITANT <input type="checkbox"/> TOXIC <input type="checkbox"/> CORROSIVE <input type="checkbox"/> REPRODUCTIVE TOXIC <input type="checkbox"/> CARCINOGEN PHYSICAL HAZARDS <input type="checkbox"/> HIGHLY FLAMMABLE <input type="checkbox"/> FLAMMABLE <input type="checkbox"/> COMBUSTIBLE LIQUID <input type="checkbox"/> ORGANIC PEROXIDE <input type="checkbox"/> COMPRESSED GAS <input type="checkbox"/> OXIDIZING <input type="checkbox"/> OXIDIZER <input type="checkbox"/> UNSTABLE (DECOMPOSES) <input type="checkbox"/> FLAMMABLE GAS <input type="checkbox"/> FLAMMABLE LIQUID TARGET ORGANS & EFFECTS <input type="checkbox"/> LUNGS <input type="checkbox"/> CENTRAL NERVOUS SYSTEM <input type="checkbox"/> HEART <input type="checkbox"/> CARDIOVASCULAR SYSTEM <input type="checkbox"/> SKIN <input type="checkbox"/> NERVOUS INHIBITION <input type="checkbox"/> EYES <input type="checkbox"/> REPRODUCTIVE SYSTEM <input type="checkbox"/> SKIN <input type="checkbox"/> RESPIRATORY SYSTEM <input type="checkbox"/> PROSTATE <input type="checkbox"/> BLOOD <input type="checkbox"/> BLOOD <input type="checkbox"/> ANTIPLASMA <input type="checkbox"/> LIVER <input type="checkbox"/> TESTICLES
FLAMMABILITY	
INSTABILITY	
PPE	

NFPA vs. OSHA

NFPA



- 3 Colors – Blue, Red & Yellow (White is special hazards)
- NFPA is designed around fire hazards
- NFPA color diamonds must be placed on entrances to hazardous areas
- Designed for emergency responders

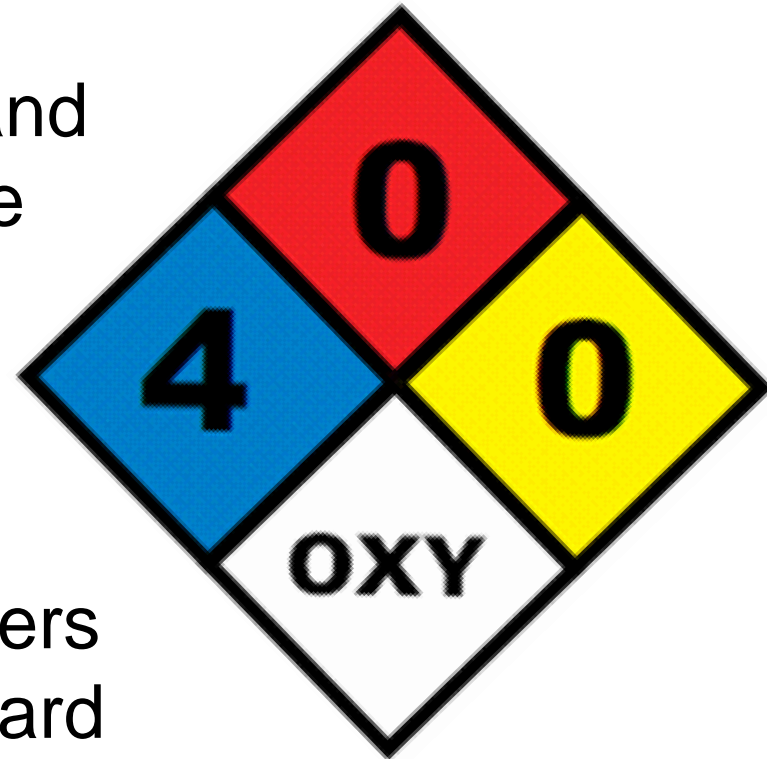
OSHA

CHEMICAL NAME	PERSONAL PROTECTION INDEX	
HEALTH	A	G
FLAMMABILITY	B	H
INSTABILITY	C	I
PPE	D	J
	E	K
	F	X Ask your supervisor for special handling instructions.

- 4 Colors – Blue, Red, Yellow & White
- White is designated for PPE requirements
- Labels placed directly on containers
- Designed for employees and handlers of hazardous substances

Custom NFPA/OSHA labels

- Customers want customized information on their labels
 - NMC can add information and Hazard classifications to the labels
- If you don't know the information we can help!
 - NMC can help their customers identify the appropriate hazard numbers for their substances



NFPA Label - Chlorine

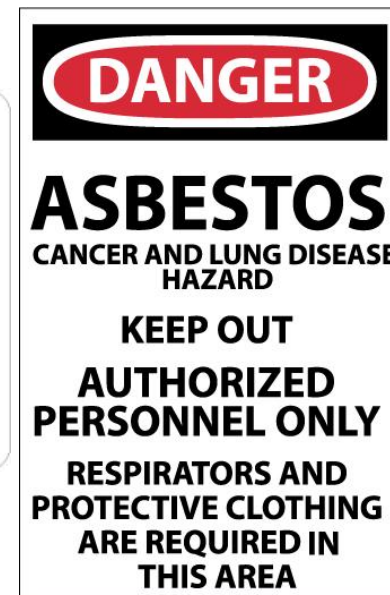
Asbestos

OSHA 29 CFR 1910.1001

- Asbestos containing material means any material containing more than 1% Asbestos
- Warning signs shall be posted at all approaches to areas for employees to take necessary protective steps before entering the area
- Signs shall read:



D656



D195

California Proposition 65

- No person shall knowingly and intentionally expose any individual to a chemical known to the state of California to cause cancer or reproductive toxicity without giving clear warning



CP14



CP6



CP13

Biohazard

- Blood borne Pathogens - OSHA 29 CFR 1910.1030

Labels

- Labels shall be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color
- Labels shall be affixed as close as possible to the container by a method that prevents their loss or unintentional removal

Signs

- The employer shall post signs at the entrance to work areas containing biohazard materials
- Signs shall contain the following information
 - Name of the Infectious Agent
 - Special requirements for entering the area
 - Name, telephone number of the laboratory director or other responsible person
- Employers shall provide appropriate PPE for employees handling biohazard materials



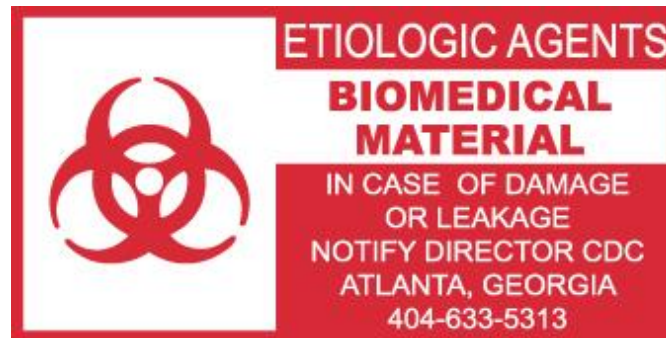
S52



RPT54

Biohazard

- Shipping label - Public Health 42 CFR 72.3
 - Label used specifically for interstate transportation of etiologic agents
- » Etiologic Agent – Infectious / disease causing substance «
 - Types of Etiologic Agents include bacterial and viral substances
 - The color of material on which the label is printed must be white, the symbol red, and the printing in red or white as illustrated



DL57AP

For more information

[OSHA 1910.1200](#) – Hazard Communication

[Bloodborne Pathogens OSHA e-tool](#)

[OSHA 1910.1030](#) - Blood borne Pathogens

[42 CFR 72.3](#) - Etiologic Agents

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