NFPA 704 GUIDANCE DOCUMENT
FREQUENTLY ASKED QUESTIONS (FAQ)

A business that is required to complete a Hazardous Materials Business Plan (HMBP) as per the California Health and Safety Code Chapter 6.95 and Riverside County Ordinance 651, must post the appropriate National Fire Protection Association (NFPA) 704 signs unless they are exempt*. The following are answers to frequently asked questions regarding NFPA 704 signs.

What is an NFPA 704 sign?

National Fire Protection Association (NFPA) is an easily understood standard for identifying specific hazards of a chemical and the severity of that hazard in case an incident requiring an emergency response occurs. If a fire, spill, or comparable emergency occurs the standard is designed as a quick method to identify the health, flammability, instability, and special hazards that may be present during an acute short-term exposure.

What do the numbers and colors represent?

The number or symbol placed on the sign shall indicate the most severe hazard associated with any reportable hazardous material stored/used at the business. Hazard severity is indicated by a numerical rating that ranges from zero (0) indicating a minimal hazard, to four (4) indicating a severe hazard. The sign is also color-coded as follows: blue for health, red for flammability, and yellow for instability. The six o'clock position on the sign represents special hazards and has a white background. The approved special hazard symbols are ~~W~~, OX and SA. ~~W~~ indicates the material has an unusual reactivity with water and is a caution regarding the use of water in either firefighting or spill control response. OX indicates that the material is an oxidizer which can burn without the presence of oxygen. Examples of oxidizers include potassium perchlorate, ammonium nitrate, and hydrogen peroxide. SA indicates the material is a simple asphyxiant gas. Examples of simple asphyxiants include nitrogen, argon, helium, and carbon dioxide.

HEALTH HAZARD	FLAMMABILITY HAZARD	INSTABILITY HAZARD
4= May be Lethal	4= Below 73 Degrees F	4= May explode at normal temperatures and pressures
3= May cause serious or permanent injury	3= Above 73 Degrees F	3= May explode at high temperature or shock
2= May cause temporary incapacitation or residual injury	2= Above 100 Degrees F	2= Violent chemical change at high temperature or pressures
1= May cause significant irritation	1= Above 200 Degrees F	1= Normally stable. High temperatures make unstable.
0= No hazard	0= Will not burn	0= Stable

*Fueling stations that handle **only** motor vehicle fuels stored in underground storage tanks are exempt from NFPA 704 posting. Fueling stations may still require NFPA 704 posting if other chemicals at or above reportable threshold quantities are stored/used at the location.

What are the authorized special hazards for the white background on the NFPA 704 sign?

OX =Oxidizer SA =Simple Asphyxiant ~~W~~ =Water Reactive

These are the only symbols recognized by the NFPA 704 standard and should only be used if applicable, otherwise leave this section blank.

NOTE: There are several "non-standard" symbols commonly used by facilities. These symbols are not recognized as part of the NFPA 704 standard; however, it is a good idea to be aware of them due to their widespread use. A few of these symbols are: **COR, ACID, ALK**. These symbols are used for corrosive chemicals, including strong acids and bases.

Why is the NFPA 704 sign important?

The sign is a visual alert for emergency response personnel to aid in their protection prior to entering a building. It helps assist emergency personnel in determining how to effectively and safely respond to an emergency that can include hazardous materials mitigation and cleanup. It can also help inspectors, facility employees, and safety personnel in taking inventory and evaluating the relative hazards of materials at the facility.

Where should NFPA 704 signs be posted and how many signs should be used?

NFPA 704 signs need to be placed in locations where hazardous materials are stored or handled in quantities requiring a permit and at all entrances to the business and business property.

If the property is fenced, all access points needs to be posted immediately adjacent to the gate.

Posting on fences need to be plainly visible and readable from the nearest public access point.

Aboveground storage tanks containing a hazardous material need to be posted with the appropriate NFPA 704 sign(s) on a visible side or sides and be readable. An “aboveground storage tank” means a non-portable container holding 55 gallons or more of a hazardous material.

Where should NFPA 704 sings be posted at a restaurant?

All entrances need to be posted, but the sign may be smaller on entrances to the dining facility. Historically, the door that leads into the Carbon Dioxide storage area will require a larger sign to be posted.

Where can the information for the NFPA 704 sign ratings be found?

The number/symbol can be determined by using the information found on the Safety Data Sheet (SDS) for each chemical. Section 16 of some SDS’s may provide the NFPA diamond symbol with hazard rating numbers filled in. **NOTE:** DO NOT use the hazard category numbers provided in Section 2 of the SDS as the hazard rating to be placed on NFPA 704 signs.

What is the difference between NFPA 704 ratings and HMIS ratings found in Section 16 of the SDS?

While both Hazardous Material Information System (HMIS) and NFPA keep workers safe, they have slightly different purposes. HMIS is intended for everyday safety, while NFPA is intended for safety during emergency situations, especially fires. See the below table for the differences between HMIS and NFPA.

	Hazardous Materials Identification Systems (HMIS) Labels	National Fire Protection Association (NFPA) Labels
Intended Audience	Employers and workers who handle and are exposed to hazardous chemicals	Emergency response personnel
Appearance	Table	Diamond
Content of White Section	Recommend personal protective equipment (PPE)	Other special hazards

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How do you determine the NFPA rating for a facility with multiple chemicals?

1. The **Composite Method** is used to characterize the hazard as simply as possible where many chemicals are present. The sign should reflect the area and not the individual chemicals.

   Example:
   ABC Warehouse has the following chemicals: diesel (1-2-0), battery charging station (3-0-2-~~W~~), acetylene (0-4-3), and propane (2-4-0), and the maintenance shop contains acetylene and propane. The resulting NFPA 704 signs would be as follows:
   The whole warehouse would be posted as 3-4-3-~~W~~
   The maintenance shop would be posted as 2-4-3

2. The **Individual Method** is used to characterize each chemical that may be present. If used for the same scenario above, then the warehouse would have four signs and the maintenance shop would have two signs, and each sign would have to include the chemical name below the sign.

   Examples of what these types of signs might look like:

3. The last method utilizes the best of the other two methods and is the **Composite-Individual Combined Method**. The outside of the warehouse or maintenance shop is posted with a single composite sign for quick recognition of the overall hazards. Areas or rooms within the building are posted using the individual method or composite method, depending on the number of chemicals they contain.

NOTE: The purpose of the NFPA 704 standard is for recognition of a hazard in an emergency; therefore, the number of signs displayed in a single place should not exceed 5.

What size should the NFPA 704 sign be?

The size of the diamond/placard is dependent on the distance at which the hazard ratings must be legible. The numbers should be visible from the minimum distance of 50 feet. NFPA 704 standard recommended distances and letter heights are outlined below:

Distance (Feet)	Hazard Rating Letter/Symbol Size (Inches)
50	1
75	2
100	3
200	4
300	6

NFPA 704 Signs for Common Chemicals

For verification of a chemical not listed below, please review section 16 of the appropriate chemical Safety Data Sheet (SDS)

Acetone		**Helium**	
Acetylene		**Gasoline**	
Argon		**Motor Oil**	
Anhydrous Ammonia		**Muriatic Acid (Hydrochloric)**	
Butane		**Nitrogen, Refrigerated, Liquid**	
Calcium Hypochlorite, Solid		**Oxygen, Refrigerated**	
Carbon Dioxide Gas		**Oxygen, Compressed**	
Carbon Dioxide, Liquid		**Propane**	
Chlorine Gas		**Sulfuric Acid**	
Compressed Natural Gas		**Ethylene Glycol (Antifreeze)**	
Diesel Fuel		**Welding Shielding Gas Mixture**