704 MARKING SYSTEM

NFPA 704 Marking System is a system developed by the National Fire Protection Association to alert emergency personnel of the type and degree of hazards within an area enabling them to more easily decide whether to evacuate the area or to commence control procedures. This standard is not applicable to transportation or to use by the general public.

When displayed: Used for hazards in facilities and may be found on non-bulk packaging.

How displayed: The system uses a diamond shaped symbol divided into four smaller diamonds.

Symbol description: The four smaller diamond shapes or quadrants have these specific meanings:

- Blue quadrant (left) indicates health hazard
- Red quadrant (top) indicates flammability hazard
- Yellow quadrant (right) indicates reactivity hazard
- Lower quadrant (bottom) contains symbols indicating special hazards, such as OXY of oxidizers, radioactive trefoil (propeller), W for water reactive materials.

Degree of Hazard: Each of the colored quadrants contain a number from 0 to 4 indicating the relative degree of hazard within the container.

NFPA 704 MARKING SYSTEM			
	HEALTH HAZARD COLOR CODE: BLUE	**FLAMMABILITY HAZARD** COLOR CODE: RED	**REACTIVITY HAZARD** COLOR CODE: YELLOW
SCALE	Type of Possible Injury	Susceptibility of Materials Burning	Susceptibility to Release of Energy
4	Materials that on a very short exposure could cause death or major residual injury.	Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and that will burn readily.	Materials that in themselves are readily capable of detonation or of explosive decomposition or reaction at normal temperatures and pressures.
3	Materials that on short exposure could cause serious temporary or residual injury.	Liquids and solids that can be ignited under almost all ambient temperature conditions.	Materials that in themselves are capable of detonation or explosive decomposition or reaction but require a strong initiating source or which must be heated under confinement before initiation or which react explosively with water.
2	Materials that on intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury.	Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.	Materials that readily undergo violent chemical change at elevated temperatures and pressures or which react violently with water or which may form explosive mixtures with water.
1	Materials that on exposure would cause irritation but only minor residual injury.	Materials that must be preheated before ignition can occur.	Materials that in themselves are normally stable, but which can become unstable at elevated temperatures and pressures.
0	Materials that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.	Materials that will not burn.	Materials, which in themselves are normally stable, even under fire exposure conditions and which are not reactive with water.

Source: NFPA, Fire Protection Guide on Hazardous Materials, Standard 704, 1990

NOTE: *Marking chemicals to confirm NFPA 704 standard should be by technically competent persons in cooperation with the local fire department and Local Emergency Planning Committee (LEPC).*

1. What quantities of hazardous substances require the NFPA 704 marking system?
   A specific quantity was not named in Missouri law. However, the federal law is referenced, so Missouri facilities should use the federal reporting thresholds of 10,000 pounds for hazardous chemicals; 500 pounds or the Threshold Planning Quantity (TPQ), whichever is less, for Extremely Hazardous Substances (EHS); and 100 pounds for explosives and blasting agents. The EHS chemicals and their TPQs can be found in 40 CFR Part 355, which is available by calling the Missouri Department of Public Safety at (314)526-3901. In other words, if a reportable amount of a hazardous chemical, Extremely Hazardous Substance, or explosive, is present in a building, room, or container, that building, room, or container, should have the appropriate NFPA 704 marking.

2. Where can I find the NFPA 704 ratings for my chemicals (health, flammability, reactivity, and special hazard information such as oxidizers, water reactive, or radioactive.)
   There are a number of places this information might be obtained. Sources for information include the Material Safety Data Sheets (MSDS), the supplier or manufacturer, and reference material including the NFPA Fire Protection Guide on Hazardous Materials, and many other reference books and data bases on hazardous materials. If a rating for a particular substance has not been established, a rating should be developed by a technically competent person in conjunction with the local fire department and LEPC.

3. Where should I place NFPA signs?
   The law states that signs are to be placed on buildings, rooms, and containers where hazardous chemicals are located. Since the purpose of these signs is to assist first responders in recognizing and identifying possible hazards, we urge you to work with your fire department in locating these signs and determining their size.

4. What if I have more than one reportable chemical in a building or room? What marking should I use?
   You can use separate markings for the hazardous chemicals that are present or a single marking, for more than one chemical. If one marking is used for multiple chemicals, the NFPA standard state that health, flammability, and reactivity numbers should indicate the greatest hazard present in each category. An exception would be if the number would be misleading because only a small amount of the chemical with the higher rating is present.

5. Can I put markings up if I have less than reportable amount?
   Yes, as long as such markings are not misleading.

6. Where can I purchase the NFPA marking system?
   You can find the supplies for the marking system in many safety catalogs. Below is a list of some suppliers. The department does not endorse any particular supplier, and these are not the only vendors of marking suppliers.

Labelmaster *1-800-621-5808*	*Seton Name Plate Co.* *1-800-243-6624*	*Lab Safety Supply Inc.* *1-800-356-0783*
Conney Safety Products *1-800-356-9100*	*J.J. Keller & Assoc., Inc.* *1-800-327-6868*	