



# CITY OF MADISON FIRE DEPARTMENT

## Fire Prevention Division

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## ***Guidelines for Compliance with the Hazardous Materials Facility Identification Signs (MGO 34.30, NFPA 704 and IFC Chapter 27)***

### Requirements

Madison General Ordinances Chapter 34 Fire Prevention Code adopts the International Fire Code (IFC). IFC Chapter 27 Hazardous Materials – General Provisions, IFC 105.6.20 and Madison General Ordinance 34.30 define what hazardous materials are regulated, adopts safety standards, requires a permit to use, store or handle hazardous materials and requires NFPA 704 signs to identify facilities with hazardous materials.

### Intent of NFPA 704

NFPA 704 provides a simple, readily recognized, easily understood system of markings that provides emergency responders with a general idea of the hazards present in a general location. The basic categories of hazards addressed by NFPA 704 include health, flammability, reactivity and other related hazards. This system increases life safety for both public and private emergency response personnel. 704 signs provide basic information, which assists in planning for effective fire and emergency control operations, including environmental safety.

The NFPA 704 standard is available for purchase through the National Fire Protection Association at 1-800-344-3555 or [www.nfpa.org](http://www.nfpa.org).

### Identifying Hazardous Materials

A hazardous material is any material or combination of materials, which may cause or significantly contribute to an increase in serious irreversible illness or an incapacitating illness. A material, which is hazardous, may also pose a substantial present or potential hazard to human health or the environment because of its quantity, concentration or physical, chemical or infectious characteristics. The term "hazardous materials" includes but is not limited to, products that are explosive, toxic, corrosive, flammable, irritants, strong sensitizers or a biological hazard.

### Where and When to Use Signs

The identification sign shall be required on buildings, storage trailers, stationary tanks, areas and rooms of buildings for quantities of hazardous materials exceeding the amounts specified in the table below.

The following are exempt from the sign requirements:

1. Retail trade facilities unless an unusual hazard is present.
2. Doors directly to laboratories require a sign specified in MGO Table 34.30 B.

### Material Safety Data Sheets (MSDS)

Material Safety Data Sheets shall be required for all materials, which are stored, used or handled in amounts exceeding the quantities listed in the table below. MSDS are a source of the information needed to accurately complete 704 signs.

### Sign Requirements

#### **Building Identification:**

A 704 sign at least 2-½ inches square, with no numbers, shall be conspicuously placed on or near all of the exterior building exit doors to identify the building to the Fire Department as a labeled building.

A sign at least 7-½ inches square with the required identification numbers indicating the highest number of the most hazardous material for each hazard shall be conspicuously placed on or near the exterior door closest to the hazardous material(s).

#### **Room Identification:**

Doors that directly access a room or area that contains a hazardous material shall be identified with a numbered sign at least 7-½ inches square.

In any room or area that has more than one hazardous material, the sign shall list the highest number of the most hazardous material for each hazard (ex. health, fire, reactivity, etc.). The sign shall be placed on the door or as directed by the Chief.

**Tank Identification:**

A sign at least 7-½ inches square with the required identification numbers shall be placed on each individual tank in such a manner so that the sign is clearly visible on two sides.

**Sign Availability:**

The Madison Fire Department will provide the 2-½ inch square signs. The 7-½ inch square signs can be purchased through fire, environmental and industrial safety supply companies.

**General Requirements:**

1. Signs shall be maintained at all times.
2. Numbers indicating the hazard levels shall be changed when hazard levels within the building change.
3. Signs shall not be obstructed from view.
4. Signs shall be durable and weather resistant.

Quantities in Excess of Permit Threshold Require NFPA 704 Signage			
PERMIT MATERIAL	TYPE OF MATERIAL	PERMIT THRESHOLD (2)	
COMBUSTIBLE	LIQUIDS	NOTE 1	
CORROSIVE MATERIALS	GASES	200 CF@NTP	
	LIQUIDS	55 GALLONS	
	SOLIDS	1000 LBS	
EXPLOSIVE MATERIALS		NOTE 2	
FLAMMABLE MATERIALS	GASES	200 CF@NTP	
	LIQUIDS	NOTE 1	
	SOLIDS	100 LBS	
HIGHLY TOXIC MATERIAL	GASES	ANY AMOUNT	
	LIQUIDS	ANY AMOUNT	
	SOLIDS	ANY AMOUNT	
OXIDIZING MATERIALS	GASES	CLASS 4	ANY AMOUNT
		CLASS 3	1 GALLON
		CLASS 2	10 GALLONS
	LIQUIDS	CLASS 1	55 GALLONS
		CLASS 4	ANY AMOUNT
		CLASS 3	10 POUNDS
SOLIDS	CLASS 2	100 POUNDS	
	CLASS 1	500 POUNDS	
	ORGANIC PEROXIDES	LIQUIDS	CLASS I
CLASS II			ANY AMOUNT
CLASS III			1 GALLON
CLASS IV			2 GALLONS
CLASS V			NO PERMIT REQUIRED
SOLIDS		CLASS I	ANY AMOUNT
	CLASS II	10 POUNDS	
	CLASS III	10 POUNDS	
	CLASS IV	20 POUNDS	
	CLASS V	NO PERMIT REQUIRED	
PYROPHORIC MATERIALS	GASES	ANY AMOUNT	
	LIQUIDS	ANY AMOUNT	
	SOLIDS	ANY AMOUNT	
TOXIC MATERIALS	GASES	ANY AMOUNT	
	LIQUIDS	10 GALLONS	
	SOLIDS	100 POUNDS	
UNSTABLE (REACTIVE) MATERIALS	LIQUIDS	CLASS 4	ANY AMOUNT
		CLASS 3	ANY AMOUNT
		CLASS 2	5 GALLONS
	SOLIDS	CLASS 1	10 GALLONS
		CLASS 4	ANY AMOUNT
		CLASS 3	ANY AMOUNT
	CLASS 2	50 POUNDS	
	CLASS 1	100 POUNDS	
WATER REACTIVE MATERIALS	LIQUIDS	CLASS 3	ANY AMOUNT
		CLASS 2	5 GALLONS
		CLASS 1	55 GALLONS
	SOLIDS	CLASS 3	ANY AMOUNT
		CLASS 2	50 POUNDS
	CLASS 1	500 POUNDS	
INERT AND SIMPLE ASPHYXIAN	GAS	6000 CF@NTP	
FOR SI: 1 GALLON = 3.785 L, 1 POUND=0.454 KG., CF – CUBIC FEET			
NTP-NORMAL TEMPERATURE AN PRESSURE OF GAS IN CF@ 1 ATMOSPHERE (14.7 PSI)			



Note 1: An operational permit is required:

1. To store, handle or use Class I liquids in excess of 5-gal. in a building. Except that a permit is not required for the following:
  - a. Storage or use of Class I liquids in the fuel tank of a motor vehicle.
  - b. Storage or use of paints, oils, varnishes or similar flammable mixtures when such liquids are stored for maintenance, painting or similar purposes for a period of not more than 30 days.
2. To store, handle or use Class II or Class IIIA liquids in excess of 25-gal. except for fuel oil used in connection with oil-burning equipment.
3. To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and combustible liquids are produced, process, transported, stored, dispensed or used.
4. To manufacture, process, blend or refine flammable or combustible liquids.

Note 2: An operational permit is required for the manufacture, storage, handling, sale or use of any quantity of explosives, explosive materials, fireworks, or pyrotechnic special effects within the scope of Chapter 33. Exceptions:

1. The Armed Forces of the United States, Coast Guard or National Guard.
2. Explosives in forms prescribed by the official United States Pharmacopoeia.
3. The possession, storage and use of small arms ammunition when packaged in accordance with DOTn packing requirements.
4. The possession, storage, and use of not more than 1 lb. of commercially manufactured sporting black powder, 20 lbs. of smokeless powder and 10,000 small arms primers for hand loading of small arms ammunition for personal consumption.
5. The use of explosive materials by federal, state and local regulatory, law enforcement and fire agencies acting in their official capacities.
6. Special industrial explosive devices, which in the aggregate contain less than 50 lbs. of explosive materials.
7. The possession, storage and use of blank industrial-power load cartridges when packaged in accordance with DOTn packaging requirements.
8. Transportation in accordance with DOTn 49 CFR Parts 100-178.
9. Items preempted by federal regulations.