

# National Fire Protection Association (NFPA)

## Hazard Rating Placard

The NFPA Diamond is a means of disseminating hazard information for a material. The diamond is divided into four sections. Each of the first three colored sections has a number in it associated with a particular hazard. The higher the number is, the more hazardous a material is for that characteristic. The fourth section includes special hazard information. If contents are a mixture, the constituent with the highest hazard rating will be reported for each of the three colored sections (see example below). Additional information can be located on the Safety Data Sheet.

### Health Hazard (blue)

#### 4-Lethal

*Gases, liquids, vapors:*

LC50 ≤ 1000 ppm

*Dusts & Mists:*

LC50 ≤ 0.5 mg/L

*Materials:*

Dermal LD50 ≤ 40 mg/kg

Oral LD50 ≤ 5 mg/kg

#### 3-Serious or Permanent Injury

*Gases, liquids, vapors:*

LC50 >1000 ppm and ≤ 3000 ppm

*Dusts & Mists:*

LC50 >0.5 mg/L and ≤ 2 mg/L

*Materials:*

Dermal LD50 >40 mg/kg and ≤ 200 mg/kg

Oral LD50 >5 mg/kg and ≤ 50 mg/kg

Corrosive to skin, eyes, respiratory tract

#### 2-Temporary Incapacitation/Residual Injury

*Gases, liquids, vapors:*

LC50 >3000 ppm and ≤ 5000 ppm

*Dusts & Mists:*

LC50 >2 mg/L and ≤ 10 mg/L

*Materials:*

Dermal LD50 >200 mg/kg and ≤ 1000 mg/kg

Oral LD50 >50 mg/kg and ≤ 500 mg/kg

Skin, eye, or respiratory tract irritants

#### 1-Significant Irritation

*Gases, liquids, vapors:*

LC50 >5000 ppm and ≤ 10,000 ppm

*Dusts & Mists:*

LC50 >10 mg/L and ≤ 200 mg/L

*Materials:*

Dermal LD50 >1000 mg/kg and ≤ 2000 mg/kg

Oral LD50 >500 mg/kg and ≤ 2000 mg/kg

Mild skin, eye, or respiratory tract irritants

#### 0-No Health Hazards

*Gases, liquids, vapors:*

LC50 >10,000 ppm

*Dusts & Mists:*

LC50 >200 mg/L

*Materials:*

Dermal LD50 >2000

Oral LD50 >2000 mg/kg

Nonirritating to skin, eye, or respiratory tract



### Instability Hazard (yellow)

#### 4-May detonate

Unstable at normal temperature and pressure

#### 3-Shock and heat may detonate

Requires initiation source;

Sensitive to thermal or mechanical shock;

Reacts explosively with water without heat or confinement.

#### 2-Violent chemical change

Reacts violently with water or forms potentially explosive mixtures with water;

Undergoes violent chemical change at elevated temperature and pressure.

#### 1-Unstable if heated

Reacts vigorously with water;

Changes or decomposes on exposure to light, air, or moisture;

Unstable at elevated temperatures and pressure.

#### 0-Stable

Stable under fire conditions;

Does not react with water

### Fire Hazard (red)

#### 4-Class IA

Flashpoint ≤ 22.8C (73 F)

#### 3-Class IB/IC

Flashpoint > 22.8C (73F) and ≤ 37.8C(100F)

#### 2-Class II/IIIA

Flashpoint >37.8C(100 F) and ≤ 93C (200F)

#### 1-Class IIIB

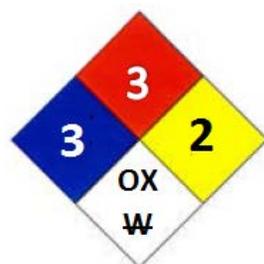
Flashpoint >93C (200F)

### Special Notice (white)

Include symbols when the following hazards are present:

**OX** oxidizer  
**W** water reactive  
**SA** simple asphyxiant

**Example:** For the chemical mixture below:



**HAZARD  
RATING**



	H	F	I	Spec
Acetone	1	3	0	
Chromic Acid	3	0	1	<b>OX</b>
Calcium	3	1	2	<b>W</b>
Ethanol	0	3	0	
Hydrochloric Acid	3	0	0	
Nitric Acid	3	0	0	<b>OX</b>

the NFPA Diamond should look like this.