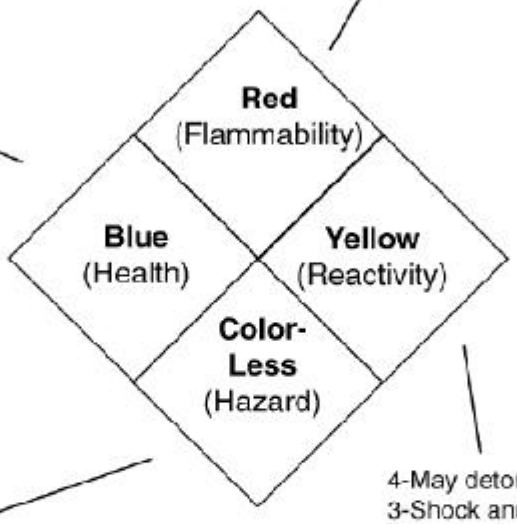
**61.15a - Exhibit 01**

## NFPA HAZARD RATING SYSTEM

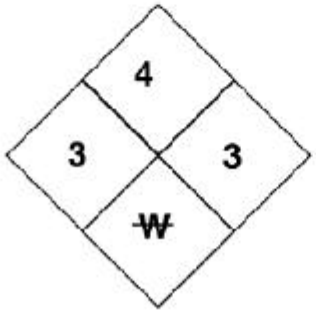
Flash Points
4-Burns readily at ambient conditions
3-Will ignite at most ambient conditions
2-Will ignite if moderately heated
1-Will ignite if preheated
0-Will not burn

4-Deadly
3-Extreme Danger
2-Hazardous
1-Slightly Hazardous
0-Normal Material

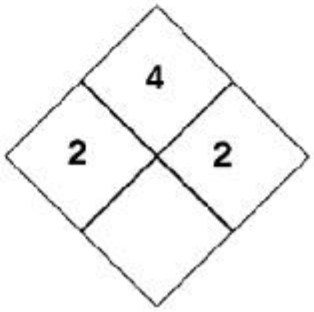



OXY-Oxidizer
ACID-Acid
ALK-Alkali
COR-Corrosive
W -Use NO WATER
☢ -Radiation Hazard

4-May detonate
3-Shock and heat may detonate
2-Violent chemical change
1-Unstable if heated
0-Stable




Example:
Diborane




Example: Vinylidene Chloride

**61.15a - Exhibit 02**

DOT LABELING/PLACARDING SYSTEM

| Contents | Color | Description | Label/ Placard |
|---|---|---|---|
| Explosives 1.1, 1.2, 1.3 | Orange: background<br>Black: text, border, numerals, symbol | Class 1.<br>Placard all quantities. | |
| Explosives 1.4 | Orange: background<br>Black: text, border, numerals, symbol | Class 1.<br>Placard 1001 pounds (454 kg) or more. | |
| Explosives 1.5 | Orange: background<br>Black: text, border, numerals, symbol | Class 1.<br>Placard 1001 pounds (454 kg) or more. | |
| Explosives 1.6 | Orange: background<br>Black: text, border, numerals, symbol | Class 1.<br>Placard 1001 pounds (454 kg) or more | |
| Oxygen | Yellow: background<br>Black: text, border, numerals, symbol | Class 2.<br>Placard 1001 pounds (454 kg) or more. | |
| Flammable gas | Red: background<br>White: text, border, numerals, symbol | Class 2. Division 2.1.<br>Placard 1001 pounds (454 kg) or more.<br>**See DANGEROUS.** | |
| Nonflammable gas | Green: background<br>White: text, border, numerals, symbol | Class 2. Division 2.2.<br>Placard 1001 pounds (454 kg) or more.<br>**See DANGEROUS.** | |
| Poison gas | White: background<br>Black: text, border, numerals, symbol | Class 2. Division 2.3.<br>Placard all quantities.<br>Text "Toxic Gas" may be used instead of "Poison Gas." | |

## 61.15a - Exhibit 02--continued

DOT LABELING/PLACARDING SYSTEM

| Contents | Color | Description | Label/ Placard |
|---|---|---|---|
| Flammable liquid | Red: background<br>White: text, border, numerals, symbol | Class 3.<br>(Label Only) | |
| Flammable | Same as label above<br>Placard 1001 pounds (454 kg) or more. Text "Gasoline," "Combustible," or "Fuel oil" may be used instead of "Flammable." | Class 3.<br>(Placard Only)<br>**See DANGEROUS.** | |
| Flammable solid | White: background with vertical red stripes<br>Black: text, border, numerals, symbol | Class 4 Division 4.1<br>Placard 1001 pounds (454 kg) or more.<br>**See DANGEROUS.** | |
| Spontaneously combustible | Red: background with white upper half<br>Black: text, border, numerals, symbol | Class 4. Division 4.2.<br>Placard 1001 pounds (454 kg) or more.<br>**See DANGEROUS.** | |
| Dangerous when wet material | Blue: background<br>White: text, border numerals, symbol | Class 4. Division 4.3.<br>Placard all quantities. | |
| Oxidizer | Yellow: background<br>Black: text, border, numerals, symbol | Class 5. Division 5.1.<br>Placard 1001 pounds (454 kg) or more.<br>**See DANGEROUS.** | |
| Organic peroxide | Yellow: background<br>Black: text, border, numerals, symbol | Class 5. Division 5.2.<br>Placard 1001 pounds (454 kg) or more.<br>**See DANGEROUS.** | |

## 61.15a - Exhibit 02--continued

DOT LABELING/PLACARDING SYSTEM

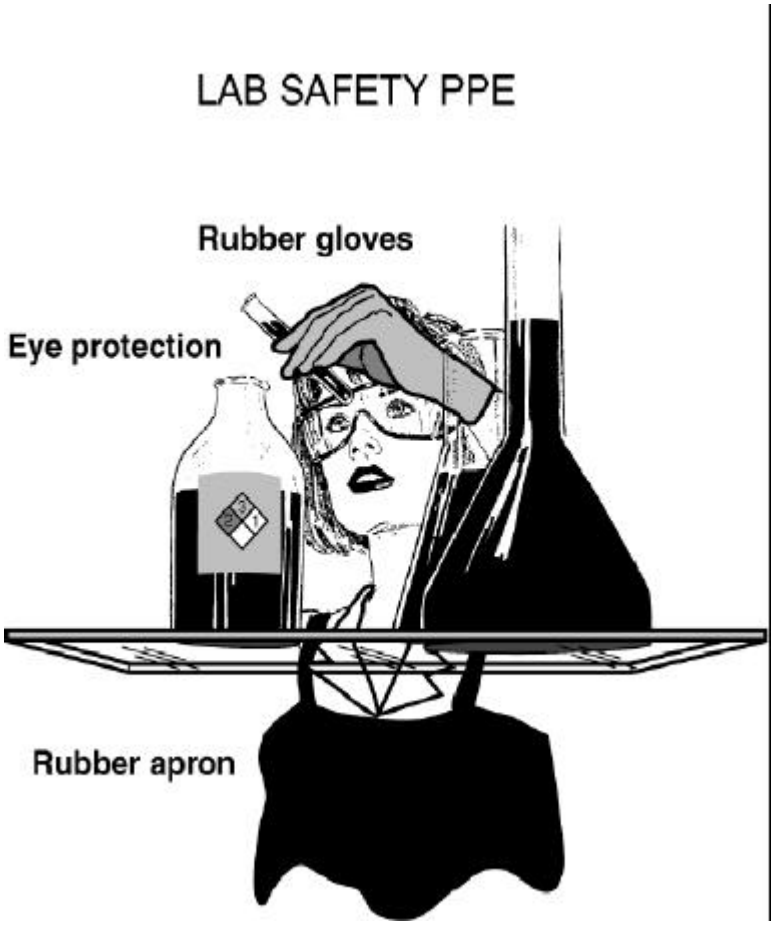
| Contents | Color | Description | Label/ Placard |
|---|---|---|---|
| Poison | White: background<br>Black: text, border, numerals, symbol | Class 6. Division 6.1. Placard 1001 pounds (454 kg) or more.<br>**See DANGEROUS.** | |
| Poisonous Material | White: background<br>Black: text, border, numerals, symbol | Class 6. Division 6.1. Placard 1001 pounds (454 kg) or more.<br>A Poison placard may be substituted.<br>**See DANGEROUS.** | |
| Infectious Substance | White: background<br>Black: text, border, numerals, symbol | Class 6. Division 6.2. Placard 1001 pounds (454 kg) or more. (Label Only)<br>**See DANGEROUS.** | |
| Radioactive | White: background<br>Black: text, border, numerals (except for the "I" which must be red), symbol | Class 7. (Label Only) | |
| Radioactive | White: background with yellow triangle in the upper portion<br>Black: text, border, numerals (except for the "II" which must be red), symbol | Class 7. (Label Only) | |
| Radioactive | White: background with yellow triangle in the upper portion-<br>Black: text, border, numerals (except for the "III" which must be red), symbol | Class 7. (Label Only) | |

## 61.15a - Exhibit 02--continued

DOT LABELING/PLACARDING SYSTEM

| Contents | Color | Description | Label/ Placard |
|---|---|---|---|
| Radioactive | White: background with yellow triangle in the upper portion<br>Black: text, border, numerals, symbol | Class 7.<br>(Placard Only)<br>Placard all quantities. | |
| Corrosive | Black: background with white triangle in the upper portion<br>White: text, numerals<br>Black border and symbol | Class 8.<br>Placard 1001 pounds (454 kg) or more.<br>**See DANGEROUS.** | |
| Miscellaneous Hazardous Materials | White: background with vertical black stripes in upper portion<br>Black: numerals | Class 9.<br>Placarding is not required but may be used for material not included in any other hazard class.<br>**See DANGEROUS.** | |
| Dangerous | Red: background with horizontal white stripe in middle portion, border<br>Black: text | Placard 1001 pounds (454 kg) of hazardous material mixed loads.<br>(Placard Only) | |
| Cargo aircraft only | Orange: background<br>Black: text, border, symbol | (Label Only) | |
| Empty | White: background<br>Black: text, border | Each side 6 inches (152 mm) long with each letter at least 1 inch (25-1/2 mm) high. (Label Only) | |

**61.22 - Exhibit 01**



**61.22 - Exhibit 02**

RESPIRATOR

**61.22 - Exhibit 03**

SPECIAL LENSES

**61.25 - Exhibit 01**

EMERGENCY EYEWASH STATION

**Keep emergency equipment in good working order.**

**61.26 - Exhibit 01**

ELECTRICAL HAZARD SIGNS

## 61.42 - Exhibit 01

REACTIVE CORROSIVE MATERIALS

| | | |
|---|---|---|
| lithium | nitrides | cyanides |
| sodium | sulfides | concentrated alkalies |
| potassium | carbides | arsenic metal |
| calcium | borides | selenium metal |
| rubidium | silicides | tellurium metal |
| cesium | tellurides | common metals |
| alloys, amalgams, and hydrides of the materials above | selenides | arsenides |
| | phosphides | |

## 61.5 - Exhibit 01

FLASHPOINT AND BOILING POINT OF FLAMMABLE AND COMBUSTIBLE LIQUIDS

| Liquid Class | Flash Point °F (° C) | Boiling Point °F (° C) | Example |
|---|---|---|---|
| **Flammable Liquids** | | | |
| 1 A | Below 73 °F (23 °C) | Below 100 °F (38 °C) | Ethyl Ether |
| 1 B | Below 73 °F (23 °C) | 100 °F and above | Gasoline |
| 1 C | 73 °F and below 100 °F (38 °C) | | Turpentine |
| **Combustible Liquids** | | | |
| II | 100 °F and below 140 °F (60 °C) | | Fuel Oil #1 |
| III A | 140 °F and below 200 °F (93 °C) | | Pine Oil |
| III B | 200 °F (93.3 °C) and above | | Transformer Oil |

## 61.5 - Exhibit 02

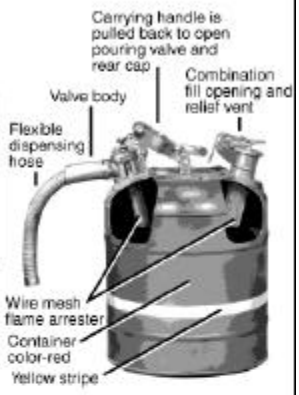
FIRE HAZARD PROPERTIES OF FLAMMABLE/COMBUSTIBLE LIQUIDS, GASES, AND VOLATILE SOLIDS
(Condensed from NFPA 325M)

| Flammable/ Combustible Liquid | Flash Point °F | (°C) | Ignition Temperature °F | (°C) | Flammable Limits Percent by Volume Lower | Upper | Hazard Class H-Health F-Flammability R-Reactivity H | F | R |
|---|---|---|---|---|---|---|---|---|---|
| Acetic acid (Glacial) | 103 | (39) | 867 | (463) | 4.0 | 19.9 | 2 | 2 | 1 |
| Acetone | -4 | (-20) | 869 | (465) | 2.5 | 12.8 | 1 | 3 | 0 |
| Amyl acetate | 60 | (16) | 680 | (360) | 1.1 | 7.5 | 1 | 3 | 0 |
| Amyl alcohol | 91 | (33) | 572 | (300) | 1.2 | 10.0 | 1 | 3 | 0 |
| Aniline | 158 | (70) | 1139 | (615) | 1.3 | 3 | 2 | 0 | |
| Benzene (Benzol) | 12 | (-11) | 928 | (498) | 1.2 | 7.8 | 2 | 3 | 0 |
| Butyl alcohol (Butanol) | 98 | (37) | 650 | (343) | 1.4 | 11.2 | 1 | 3 | 0 |
| Carbon disulfide | -22 | (-30) | 194 | (90) | 1.3 | 50.0 | 2 | 3 | 0 |
| Corn oil | 490 | (254) | 740 | (393) | 0 | 1 | 0 | | |
| Creosote oil | 165 | (74) | 637 | (336) | 2 | 2 | 0 | | |
| Ethyl acetate | 24 | (-4) | 800 | (426) | 2.0 | 11.5 | 1 | 3 | 0 |
| Ethyl alcohol | 55 | (13) | 685 | (363) | 3.3 | 19.0 | 0 | 3 | 0 |
| Ethyl chloride | -58 | (-50) | 966 | (519) | 3.8 | 15.4 | 2 | 4 | 0 |
| Ethylene dichloride | 56 | (13) | 775 | (413) | 6.2 | 16.0 | 2 | 3 | 0 |
| Ethyl ether | -49 | (-45) | 356 | (180) | 1.9 | 36.0 | 2 | 4 | 1 |
| Ethylene oxide | -20 | (-29) | 1058 | (570) | 3.0 | 100.0 | 2 | 4 | 3 |
| Gasoline (low octane) | -45 | (-43) | 536 | (280) | 1.4 | 7.6 | 1 | 3 | 0 |
| Hexane | -7 | (-22) | 437 | (225) | 1.1 | 7.5 | 1 | 3 | 0 |
| Hydrocyanic acid | 0 | (-18) | 1000 | (538) | 5.6 | 40.0 | 4 | 4 | 2 |
| Kerosine | 100 | (43) | 410 | (210) | 0.7 | 5.0 | 0 | 2 | 0 |
| Lard oil | 395 | (202) | 833 | (445) | 0 | 1 | 0 | | |
| Methyl acetate | 14 | (-10) | 850 | (454) | 3.1 | 16.0 | 1 | 3 | 0 |
| Methyl alcohol | 52 | (11) | 867 | (464) | 6.0 | 36.0 | 1 | 3 | 0 |
| Methyl ethyl ketone | 16 | (-9) | 759 | (404) | 1.4 | 11.4 | 1 | 3 | 0 |
| Naphtha, coal tar | 107 | (42) | 531 | (277) | 2 | 2 | 0 | | |
| Naphtha, varnish markers' and painters' | 28 | (-2) | 450 | (232) | 0.9 | 6.0 | 1 | 3 | 0 |
| Petroleum ether (Bezin) | 0 | (-18) | 550 | (288) | 1.1 | 5.9 | 1 | 4 | 0 |
| Phenol (Carbolic acid) | 175 | (79) | 1319 | (715) | 1.8 | 8.6 | 3 | 2 | 0 |
| Pine oil | 172 | (78) | | | 0 | 2 | 0 | | |
| Propyl alcohol (Propanol) | 74 | (23) | 775 | (412) | 2.2 | 13.7 | 1 | 3 | 0 |
| Quenching oil | 365 | (185) | | | 0 | 1 | 0 | | |
| Toluene | 40 | (4) | 896 | (480) | 1.1 | 7.1 | 2 | 3 | 0 |
| Transformer oil | 295 | (146) | | | 0 | 1 | 0 | | |
| Turpentine | 95 | (35) | 488 | (253) | 0.8 | 1 | 3 | 0 | |

**61.51e - Exhibit 01**

## GROUNDING AND BONDING

Grounding and Bonding




Type II Safety Can

Grounding and Bonding¾Spill Containment

## 61.61 - Exhibit 01

CHARACTERISTICS OF GASES IN COMMON USE

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| | | | | | | | |
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## 61.61 - Exhibit 02

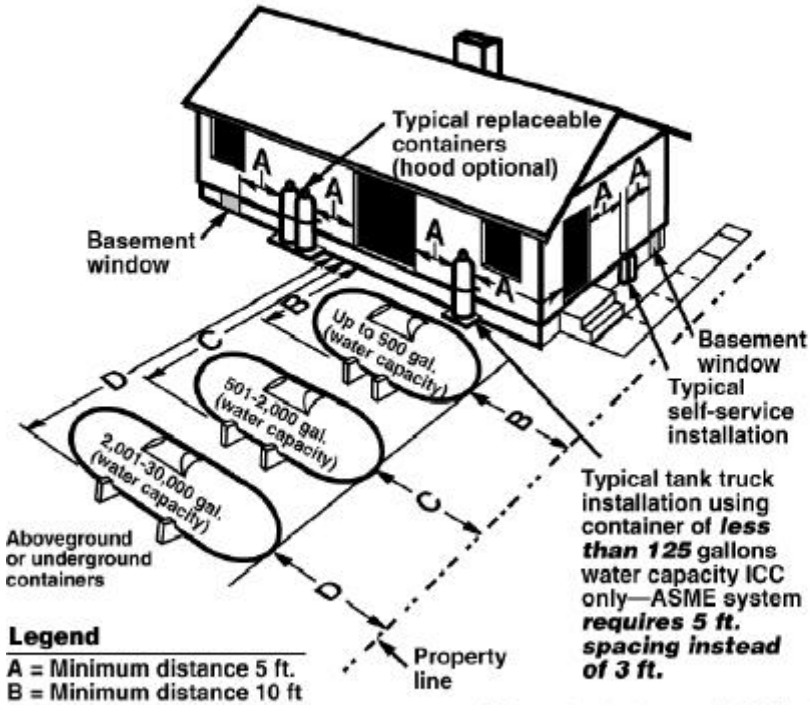
VAPOR DENSITIES OF CERTAIN NONFLAMMABLE GASES

**Air=1**

| | | | |
|---|---|---|---|
| Carbon dioxide | 1.52 | Nitrogen | 0.97 |
| Chlorine | 2.40 | Nitrous oxide | 1.53 |
| Helium | 0.13 | Propane | 1.52 |
| Hydrogen | 0.07 | Oxygen | 1.10 |
| Neon | 0.67 | Sulphur dioxide | 2.20 |

**61.62 - Exhibit 01**

## LP GAS STORAGE TANK INSTALLATION




**Legend**

A = Minimum distance 5 ft.
B = Minimum distance 10 ft
C = Minimum distance 25 ft.
D = Minimum distance 50 ft.

*Distance to srtructure may be 10 ft. for 1,200 gal. container if it is at least 25 ft. from any container whose capacity is over 125 gal.

**Note:** *one gallon equals 3.79 liters, one foot equals 0.30 meter*

**Container Spacing**
*Not to scale*