

**2009 International Fire Code (IFC) – Table 2703.1.1(1) – Maximum Allowable Quantity per Control Area of Hazardous Materials
Posing a Physical Hazard^{a, j, m, n, p}**

| MATERIAL | CLASS | GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED | STORAGE ^b | | | USE-CLOSED SYSTEMS ^b | | | USE-OPEN SYSTEMS ^b | |
|---|---|--|--|--|--|--|--|--|--|--|
| | | | Solid pounds (cubic feet) | Liquid gallons (pounds) | Gas cubic feet at NTP | Solid pounds (cubic feet) | Liquid gallons (pounds) | Gas cubic feet at NTP | Solid pounds (cubic feet) | Liquid gallons (pounds) |
| Combustible liquid ^{c, i} | II IIIA IIIB | H-2 or H-3 H-2 or H-3 Not Applicable | Not Applicable | 120 ^{d, e} 330 ^{d, e} 13,200 ^{e, f} | Not Applicable | Not Applicable | 120 ^d 330 ^d 13,200 ^f | Not Applicable | Not Applicable | 30 ^d 80 ^d 3,300 ^f |
| Combustible fiber | Loose Baled ^o | H-3 | (100) (1,000) | Not Applicable | Not Applicable | (100) (1,000) | Not Applicable | Not Applicable | (20) (200) | Not Applicable |
| Cryogenic Flammable | Not Applicable | H-2 | Not Applicable | 45 ^d | Not Applicable | Not Applicable | 45 ^d | Not Applicable | Not Applicable | 10 ^d |
| Consumer fireworks (Class C Common) | 1.4G | H-3 | 125 ^{d, e, 1} | Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable |
| Cryogenic Oxidizing | Not Applicable | H-3 | Not Applicable | 45 ^d | Not Applicable | Not Applicable | 45 ^d | Not Applicable | Not Applicable | 10 ^d |
| Explosives | Division 1.1 Division 1.2 Division 1.3 Division 1.4 Division 1.4G Division 1.5 Division 1.6 | H-1 H-1 H-1 or H-2 H-3 H-3 H-1 H-1 | 1 ^{e, g} 1 ^{e, g} 5 ^{e, g} 50 ^{e, g} 125 ^{d, e, 1} 1 ^{e, g} 1 ^{d, e, g} | (1) ^{e, g} (1) ^{e, g} (5) ^{e, g} (50) ^{e, g} Not Applicable (1) ^{e, g} Not Applicable | Not Applicable | 0.25 ^g 0.25 ^g 1 ^g 50 ^g Not Applicable 0.25 ^g Not Applicable | (0.25) ^g (0.25) ^g 1 ^g (50) ^g Not Applicable (0.25) ^g Not Applicable | Not Applicable | 0.25 ^g 0.25 ^g 1 ^g Not Applicable Not Applicable 0.25 ^g Not Applicable | (0.25) ^g (0.25) ^g (1) ^g Not Applicable Not Applicable (0.25) ^g Not Applicable |
| Flammable gas | Gaseous Liquefied | H-2 | Not Applicable | Not Applicable 30 ^{d, e} | 1,000 ^{d, e} Not Applicable | Not Applicable | Not Applicable 30 ^{d, e} | 1,000 ^{d, e} Not Applicable | Not Applicable | Not Applicable |
| Flammable liquids ^c | IA IB and IC | H-2 or H-3 | Not Applicable | 30 ^{d, e} 120 ^{d, e} | Not Applicable | Not Applicable | 30 ^d 120 ^d | Not Applicable | Not Applicable | 10 ^d 30 ^d |
| Combination Flammable liquid (IA, IB, IC) | Not Applicable | H-2 or H-3 | Not Applicable | 120 ^{d, e, h} | Not Applicable | Not Applicable | 120 ^{d, h} | Not Applicable | Not Applicable | 30 ^{d, h} |
| Flammable solid | Not Applicable | H-3 | 125 ^{d, e} | Not Applicable | Not Applicable | 125 ^d | Not Applicable | Not Applicable | 25 ^d | Not Applicable |

| | | | | | | | | | | |
|---------------------|----------------------|----------------|-----------------------|---|--|--------------------|---|--|--------------------|----------------------|
| Organic peroxide | UD | H-1 | 1 ^{e, g} | (1) ^{e, g} | Not Applicable | 0.25 ^g | (0.25) ^g | Not Applicable | 0.25 ^g | (0.25) ^g |
| | I | H-2 | 5 ^{d, e} | (5) ^{d, e} | | 1 ^d | (1) ^d | | 1 ^d | (1) ^d |
| | II | H-3 | 50 ^{d, e} | (50) ^{d, e} | | 50 ^d | (50) ^d | | 10 ^d | (10) ^d |
| | III | H-3 | 125 ^{d, e} | (125) ^{d, e} | | 125 ^d | (125) ^d | | 25 ^d | (25) ^d |
| | IV | Not Applicable | Not Limited | Not Limited | | Not Limited | Not Limited | | Not Limited | Not Limited |
| V | Not Applicable | Not Applicable | Not Limited | Not Limited | Not Limited | Not Limited | Not Limited | Not Limited | Not Limited | |
| Oxidizer | 4 | H-1 | 1 ^g | (1) ^{e, g} | Not Applicable | 0.25 ^g | (0.25) ^g | Not Applicable | 0.25 ^g | (0.25) ^g |
| | 3 ^k | H-2 or H-3 | 10 ^{d, e} | (10) ^{d, e} | | 2 ^d | (2) ^d | | 2 ^d | (2) ^d |
| | 2 | H-3 | 250 ^{d, e} | (250) ^{d, e} | | 250 ^d | (250) ^d | | 50 ^d | (50) ^d |
| | 1 | Not Applicable | 4,000 ^{e, f} | (4,000) ^{e, f} | | 4,000 ^f | (4,000) ^f | | 1,000 ^f | (1,000) ^f |
| Oxidizing gas | Gaseous Liquefied | H-3 | Not Applicable | Not Applicable 15 ^{d, e} | 1,500 ^{d, e} Not Applicable | Not Applicable | Not Applicable 15 ^{d, e} | 1,500 ^{d, e} Not Applicable | Not Applicable | Not Applicable |
| Pyrophoric | Not Applicable | H-2 | 4 ^{e, g} | (4) ^{e, g} | 50 ^{e, g} | 1 ^g | (1) ^g | 10 ^{e, g} | 0 | 0 |
| Unstable (reactive) | 4 | H-1 | 1 ^{e, g} | (1) ^{e, g} | 10 ^{e, g} | 0.25 ^g | (0.25) ^g | 2 ^{e, g} | 0.25 ^g | (0.25) ^g |
| | 3 | H-1 or H-2 | 5 ^{d, e} | (5) ^{d, e} | 50 ^{d, e} | 1 ^d | (1) ^d | 10 ^{d, e} | 1 ^d | (1) ^d |
| | 2 | H-3 | 50 ^{d, e} | (50) ^{d, e} | 250 ^{d, e} | 50 ^d | (50) ^d | 250 ^{d, e} | 10 ^d | (10) ^d |
| | 1 | Not Applicable | Not Limited | Not Limited | Not Limited | Not Limited | Not Limited | Not Limited | Not Limited | Not Limited |
| Water reactive | 3 | H-2 | 5 ^{d, e} | (5) ^{d, e} | Not Applicable | 5 ^d | (5) ^d | Not Applicable | 1 ^d | (1) ^d |
| | 2 | H-3 | 50 ^{d, e} | (50) ^{d, e} | | 50 ^d | (50) ^d | | 10 ^d | (10) ^d |
| | 1 | Not Applicable | Not Limited | Not Limited | | Not Limited | Not Limited | | Not Limited | Not Limited |

For SI: 1 cubic foot = 0.02832 m³, 1 pound = 0.454 kg, 1 gallon = 3.785 L.

- a. For use of control areas, see Section 2703.8.3.
- b. The aggregate quantity in use and storage is not to exceed the quantity listed for storage.
- c. The quantities of alcoholic beverages in retail and wholesale sales occupancies is not to be limited providing the liquids are packaged in individual containers not exceeding 1.3 gallons. In retail and wholesale sales occupancies, the quantities of medicines, foodstuffs, consumer or industrial products, and cosmetics containing not more than 50 percent by volume of water-miscible liquids with the remainder of the solutions not being flammable are not to be limited, provided that such materials are packaged in individual containers not exceeding 1.3 gallons.
- d. Maximum allowable quantities are to be increased 100 percent in buildings equipped throughout with an approved automatic sprinkler system. Where Note e also applies, the increase for both notes is to be applied accumulatively.
- e. Maximum allowable quantities are to be increased 100 percent when stored in approved storage cabinets, day boxes, gas cabinets, exhausted enclosures or safety cans. Where Note d also applies, the increase for both notes is to be applied accumulatively.
- f. Quantities are not to be limited in a building equipped throughout with an approved automatic sprinkler system.
- g. Allowed only in buildings equipped throughout with an approved automatic sprinkler system.
- h. Containing not more than the maximum allowable quantity per control area of Class IA, Class IB or Class IC flammable liquids.
- i. Inside a building, the maximum capacity of a combustible liquid storage system that is connected to a fuel-oil piping system is to be 660 gallons provided such system complies with this code.
- j. Quantities in parenthesis indicate quantity units in parenthesis at the head of each column.
- k. A maximum quantity of 200 pounds of solid or 20 gallons of liquid Class 3 oxidizers is allowed when such materials are necessary for maintenance purposes, operation or sanitation of equipment when the storage containers and the manner of storage are approved.

- l. Net weight of pyrotechnic composition of the fireworks. Where the net weight of the pyrotechnic composition of the fireworks is not known, 25 percent of the gross weight of the fireworks including packaging is to be used.
- m. For gallons of liquids, divide the amount in pounds by 10 in accordance with Section 2703.1.2.
- n. For storage and display quantities in Group M and storage quantities in Group S occupancies complying with Section 2703.11, see Table 2703.11.1.
- o. Densely-packed baled cotton that complies with the packaging requirements of ISO 8115 is not to be included in this material class.
- p. The following are not to be included in determining the maximum allowable quantities:
 1. Liquid or gaseous fuel in fuel tanks of vehicles.
 2. Liquid or gaseous fuel in fuel tanks on motorized equipment operated in accordance with this code.
 3. Gaseous fuels in piping systems and fixed appliances regulated by the *International Fuel Gas Code*.
 4. Liquid fuels in piping systems and fixed appliances, regulated by the *International Mechanical Code*.

2009 International Fire Code (IFC) – Table 2703.1.1(2) – Maximum Allowable Quantity per Control Area of Hazardous Material Posing a Health Hazard^{a, b, c, j}

| MATERIAL | STORAGE ^d | | | USE-CLOSED SYSTEMS ^d | | | USE-OPEN SYSTEMS ^d | |
|--------------|------------------------------|---|------------------------------------|---------------------------------|--------------------------------------|------------------------------------|-------------------------------|--------------------------------------|
| | Solid pounds ^{e, f} | Liquid gallons (pounds) ^{e, f} | Gas cubic feet at NTP ^e | Solid pounds ^e | Liquid gallons (pounds) ^e | Gas cubic feet at NTP ^e | Solid pounds ^e | Liquid gallons (pounds) ^e |
| Corrosive | 5,000 | 500 | 810 ^{f, g} | 5,000 | 500 | 810 ^{f, g} | 1,000 | 100 |
| Highly toxic | 10 | (10) ⁱ | 20 ^h | 10 | (10) ⁱ | 20 ^h | 3 | (3) ⁱ |
| Toxic | 500 | (500) ⁱ | 810 ^f | 500 | (500) ⁱ | 810 ^f | 125 | (125) ⁱ |

For SI: 1 cubic foot = 0.02832 m³, 1 pound = 0.454 kg, 1 gallon = 3.785 L.

- a. For use of control areas, see Section 2703.8.3.
- b. In retail and wholesale sales occupancies, the quantities of medicines, foodstuffs consumer or industrial products, and cosmetics, containing not more than 50 percent by volume of water-miscible liquids and with the remainder of the solution not being flammable, are not to be limited, provided that such materials are packaged in individual containers not exceeding 1.3 gallons.
- c. For storage and display quantities in Group M and storage quantities in Group S occupancies complying with Section 2703.11, see Table 2703.11.1.
- d. The aggregate quantity in use and storage is not to exceed the quantity listed for storage.
- e. Maximum allowable quantities are to be increase 100 percent in buildings equipped throughout with an approved automatic sprinkler system. Where Note f also applies, the increase for both notes is to be applied cumulatively.
- f. Maximum allowable quantities are to be increased 100 percent when stored in approved storage cabinets, gas cabinets, or exhausted enclosures. Where Note e also applies, the increase for both notes is to be applied cumulatively.
- g. A single cylinder containing 150 pounds or less of anhydrous ammonia in a single control area in a nonsprinklered building is to be considered a maximum allowable quantity. Two cylinders, each containing 150 pounds or less in a single control area are to be considered a maximum allowable quantity provided the building is equipped throughout with an approved automatic sprinkler system.
- h. Allowed only when stored in approved exhausted gas cabinets or exhausted enclosures.
- i. Quantities in parenthesis indicate quantity units in parenthesis at the head of each column.
- j. For gallons of liquids, divide the amount in pounds by 10 in accordance with Section 2703.1.2.

2009 International Fire Code (IFC) – Table 2703.1.1(3) – Maximum Allowable Quantity per Control Area of Hazardous Materials Posing a Physical Hazard in an Outdoor Control Area^{a, b, c}

| MATERIAL | CLASS | STORAGE ^b | | | USE-CLOSED SYSTEMS ^b | | | USE-OPEN SYSTEMS ^b | |
|----------------------|------------------------|----------------------|-------------------------|-------------------------|---------------------------------|-------------------------|-------------------------|-------------------------------|-------------------------|
| | | Solid pounds | Liquid gallons (pounds) | Gas cubic feet at NTP | Solid pounds | Liquid gallons (pounds) | Gas cubic feet at NTP | Solid pounds | Liquid gallons (pounds) |
| Flammable gas | Gaseous Liquefied | Not Applicable | Not Applicable 30 | 3,000 Not Applicable | Not Applicable | Not Applicable 15 | 1,500 Not Applicable | Not Applicable | Not Applicable |
| Flammable solid | Not Applicable | 500 | Not Applicable | Not Applicable | 250 | Not Applicable | Not Applicable | 50 | Not Applicable |
| Organic peroxide | Unclassified Detonable | 1 | (1) | Not Applicable | 0.25 | (0.25) ^d | Not Applicable | 0.25 | (0.25) ^d |
| Organic peroxide | I | 20 | (20) ^d | Not Applicable | 10 | (10) ^d | Not Applicable | 2 | (2) ^d |
| | II | 200 | (200) ^d | | 100 | (100) ^d | | 20 | (20) ^d |
| | III | 500 | (500) ^d | | 250 | (250) ^d | | 50 | (50) ^d |
| | IV | 1,000 | (1,000) ^d | | 500 | (500) ^d | | 100 | (100) ^d |
| | V | Not Limited | Not Limited | | Not Limited | Not Limited | | Not Limited | Not Limited |
| Oxidizer | 4 | 2 | (2) ^d | Not Applicable | 1 | (1) ^d | Not Applicable | 0.25 | (0.25) ^d |
| | 3 | 40 | (40) ^d | | 20 | (20) ^d | | 4 | (4) ^d |
| | 2 | 1,000 | (1,000) ^d | | 500 | (500) ^d | | 100 | (100) ^d |
| | 1 | Not Limited | Not Limited | | Not Limited | Not Limited | | Not Limited | Not Limited |
| Oxidizing gas | Gaseous Liquefied | Not Applicable | Not Applicable 60 | 6,000 Not Applicable | Not Applicable | Not Applicable 30 | 3,000 Not Applicable | Not Applicable | Not Applicable |
| Pyrophoric materials | Not Applicable | 8 | (8) ^d | 100 | 4 | (4) ^d | 10 | 0 | 0 |
| Unstable (reactive) | 4 | 2 | (2) ^d | 20 | 1 | (1) ^d | 2 | 0.25 | (0.25) ^d |
| | 3 | 20 | (20) ^d | 200 | 10 | (10) ^d | 10 | 1 | 1 |
| | 2 | 200 | (200) ^d | 1,000 | 100 | (100) ^d | 250 | 10 | 10 |
| | 1 | Not Limited | Not Limited | 1,500 | Not Limited | Not Limited | Not Limited | Not Limited | Not Limited |
| Water reactive | 3 | 20 | (20) ^d | Not Applicable | 10 | (10) ^d | Not Applicable | 1 | (1) ^d |
| | 2 | 200 | (200) ^d | | 100 | (100) ^d | | 10 | (10) ^d |
| | 1 | Not Limited | Not Limited | | Not Limited | Not Limited | | Not Limited | Not Limited |

For SI: 1 cubic foot = 0.02832 m³, 1 pound = 0.454 kg, 1 gallon = 3.785 L.

- For gallons of liquids, divide the amount in pounds by 10 in accordance with Section 2703.1.2.
- The aggregate quantities in storage and use are not to exceed the quantity listed for storage.
- The aggregate quantity of nonflammable solid and nonflammable or noncombustible liquid hazardous materials allowed in outdoor storage per single property under the same ownership or control used for retail or wholesale sales is allowed to exceed the maximum allowable quantity per control area when such storage is in accordance with Section 2703.11.
- Quantities in parentheses indicate quantity units in parentheses at the head of each column.