

Initial Isolation and Protective Action Distances (UN 1560-1831)

| ID No. | NAME OF MATERIAL | <u>SMALL SPILLS</u> | | | | | | <u>LARGE SPILLS</u> | | | | | |
|--------|--|---|-------|--|-------|--------------|-------|--|--------|--|-------|--------------|-------|
| | | (From a small package or small leak from a large package) | | | | | | (From a large package or from many small packages) | | | | | |
| | | First <u>ISOLATE</u> in all Directions | | Then <u>PROTECT</u> persons Downwind during- | | | | First <u>ISOLATE</u> in all Directions | | Then <u>PROTECT</u> persons Downwind during- | | | |
| | | m | (ft) | <u>DAY</u> | | <u>NIGHT</u> | | m | (ft) | <u>DAY</u> | | <u>NIGHT</u> | |
| | | km | (mi) | km | (mi) | | | km | (mi) | km | (mi) | | |
| 1560 | Arsenic chloride | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 60 | (200) | 0.6 | (0.4) | 1.4 | (0.9) |
| 1560 | Arsenic trichloride | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 60 | (200) | 0.6 | (0.4) | 1.4 | (0.9) |
| 1569 | Bromoacetone | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 95 | (300) | 0.8 | (0.5) | 1.9 | (1.2) |
| 1580 | Chloropicrin | 60 | (200) | 0.5 | (0.3) | 1.3 | (0.8) | 185 | (600) | 1.8 | (1.1) | 4.0 | (2.5) |
| 1581 | Chloropicrin and Methyl bromide mixture | 30 | (100) | 0.2 | (0.1) | 0.5 | (0.3) | 125 | (400) | 1.3 | (0.8) | 3.1 | (1.9) |
| 1581 | Methyl bromide and Chloropicrin mixtures | 30 | (100) | 0.2 | (0.1) | 0.5 | (0.3) | 125 | (400) | 1.3 | (0.8) | 3.1 | (1.9) |
| 1581 | Methyl bromide and more than 2% Chloropicrin mixture, liquid | 30 | (100) | 0.3 | (0.2) | 1.1 | (0.7) | 215 | (700) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1582 | Chloropicrin and Methyl chloride mixture | 30 | (100) | 0.2 | (0.1) | 0.8 | (0.5) | 95 | (300) | 1.0 | (0.6) | 3.2 | (2.0) |
| 1582 | Methyl chloride and Chloropicrin mixtures | 30 | (100) | 0.2 | (0.1) | 0.8 | (0.5) | 95 | (300) | 1.0 | (0.6) | 3.2 | (2.0) |
| 1583 | Chloropicrin mixture, n.o.s. | 30 | (100) | 0.3 | (0.2) | 1.1 | (0.7) | 215 | (700) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1583 | Chloropicrin, absorbed | 60 | (200) | 0.5 | (0.3) | 1.3 | (0.8) | 185 | (600) | 1.8 | (1.1) | 4.0 | (2.5) |
| 1589 | CK (when used as a weapon) | 60 | (200) | 0.6 | (0.4) | 2.4 | (1.5) | 400 | (1300) | 4.0 | (2.5) | 8.0 | (5.0) |
| 1589 | Cyanogen chloride, inhibited | 60 | (200) | 0.5 | (0.3) | 1.8 | (1.1) | 275 | (900) | 2.7 | (1.7) | 6.8 | (4.2) |
| 1595 | Dimethyl sulfate | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 30 | (100) | 0.3 | (0.2) | 0.6 | (0.4) |
| 1595 | Dimethyl sulphate | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 30 | (100) | 0.3 | (0.2) | 0.6 | (0.4) |
| 1605 | Ethylene dibromide | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 30 | (100) | 0.3 | (0.2) | 0.5 | (0.3) |
| 1612 | Hexaethyl tetraphosphate and compressed gas mixture | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 30 | (100) | 0.3 | (0.2) | 1.4 | (0.9) |
| 1613 | Hydrocyanic acid, aqueous solution, with not more than 20% Hydrogen cyanide (when «Inhalation Hazard» is on a package or shipping paper) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 125 | (400) | 0.5 | (0.3) | 1.3 | (0.8) |
| 1613 | Hydrogen cyanide, aqueous solution, with not more than 20% Hydrogen cyanide (when «Inhalation Hazard» is on a package or shipping paper) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 125 | (400) | 0.5 | (0.3) | 1.3 | (0.8) |
| 1614 | Hydrogen cyanide, anhydrous, stabilized (absorbed) | 60 | (200) | 0.2 | (0.1) | 0.5 | (0.3) | 400 | (1300) | 1.3 | (0.8) | 3.4 | (2.1) |
| 1614 | Hydrogen cyanide, stabilized (absorbed) | 60 | (200) | 0.2 | (0.1) | 0.5 | (0.3) | 400 | (1300) | 1.3 | (0.8) | 3.4 | (2.1) |
| 1647 | Ethylene dibromide and Methyl bromide mixture, liquid | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 30 | (100) | 0.3 | (0.2) | 0.5 | (0.3) |
| 1647 | Methyl bromide and Ethylene dibromide mixture, liquid | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 30 | (100) | 0.3 | (0.2) | 0.5 | (0.3) |
| 1660 | Nitric oxide | 30 | (100) | 0.3 | (0.2) | 1.3 | (0.8) | 155 | (500) | 1.3 | (0.8) | 3.5 | (2.2) |
| 1660 | Nitric oxide, compressed | 30 | (100) | 0.3 | (0.2) | 1.3 | (0.8) | 155 | (500) | 1.3 | (0.8) | 3.5 | (2.2) |
| 1670 | Perchloromethyl mercaptan | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 60 | (200) | 0.5 | (0.3) | 1.1 | (0.7) |
| 1680 | Potassium cyanide (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 95 | (300) | 0.8 | (0.5) | 2.6 | (1.6) |
| 1689 | Sodium cyanide (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 95 | (300) | 1.0 | (0.6) | 2.6 | (1.6) |
| 1694 | CA (when used as a weapon) | 30 | (100) | 0.2 | (0.1) | 0.5 | (0.3) | 155 | (500) | 1.6 | (1.0) | 4.2 | (2.6) |
| 1695 | Chloroacetone, stabilized | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 60 | (200) | 0.6 | (0.4) | 1.3 | (0.8) |
| 1697 | CN (when used as a weapon) | 30 | (100) | 0.2 | (0.1) | 0.5 | (0.3) | 125 | (400) | 1.1 | (0.7) | 3.2 | (2.0) |
| 1698 | Adamsite (when used as a weapon) | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 185 | (600) | 2.3 | (1.4) | 5.1 | (3.2) |
| 1698 | DM (when used as a weapon) | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 185 | (600) | 2.3 | (1.4) | 5.1 | (3.2) |
| 1699 | DA (when used as a weapon) | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 185 | (600) | 2.3 | (1.4) | 5.1 | (3.2) |
| 1703 | Tetraethyl dithiopyrophosphate and gases, in solution | 30 | (100) | 0.3 | (0.2) | 1.1 | (0.7) | 365 | (1200) | 3.7 | (2.3) | 6.9 | (4.3) |
| 1703 | Tetraethyl dithiopyrophosphate and gases, mixtures | 30 | (100) | 0.3 | (0.2) | 1.1 | (0.7) | 365 | (1200) | 3.7 | (2.3) | 6.9 | (4.3) |
| 1703 | Tetraethyl dithiopyrophosphate and gases, mixtures, or in solution (LC50 more than 200 ppm but not more than 5000 ppm) | 30 | (100) | 0.2 | (0.1) | 0.5 | (0.3) | 125 | (400) | 0.8 | (0.5) | 2.9 | (1.8) |
| 1703 | Tetraethyl dithiopyrophosphate and gases, mixtures, or in solution (LC50 not more than 200 ppm) | 30 | (100) | 0.3 | (0.2) | 1.1 | (0.7) | 365 | (1200) | 3.7 | (2.3) | 6.9 | (4.3) |
| 1705 | Tetraethyl pyrophosphate and compressed gas mixtures | 30 | (100) | 0.3 | (0.2) | 1.3 | (0.8) | 400 | (1300) | 4.0 | (2.5) | 7.2 | (4.5) |

| | | | | | | | | | | | | | |
|------|--|-----|-------|-----|-------|-----|-------|-----|--------|-----|-------|------|-------|
| 1705 | Tetraethyl pyrophosphate and compressed gas mixtures (LC50 more than 200 ppm but not more than 5000 ppm) | 30 | (100) | 0.2 | (0.1) | 0.5 | (0.3) | 125 | (400) | 0.8 | (0.5) | 2.9 | (1.8) |
| 1705 | Tetraethyl pyrophosphate and compressed gas mixtures (LC50 not more than 200 ppm) | 30 | (100) | 0.3 | (0.2) | 1.3 | (0.8) | 400 | (1300) | 4.0 | (2.5) | 7.2 | (4.5) |
| 1714 | Zinc phosphide (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.8 | (0.5) | 185 | (600) | 1.8 | (1.1) | 5.1 | (3.2) |
| 1716 | Acetyl bromide (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 95 | (300) | 0.8 | (0.5) | 2.3 | (1.4) |
| 1717 | Acetyl chloride (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 95 | (300) | 1.0 | (0.6) | 2.7 | (1.7) |
| 1722 | Allyl chlorocarbonate | 155 | (500) | 1.3 | (0.8) | 2.7 | (1.7) | 610 | (2000) | 6.1 | (3.8) | 10.8 | (6.7) |
| 1722 | Allyl chloroformate | 155 | (500) | 1.3 | (0.8) | 2.7 | (1.7) | 610 | (2000) | 6.1 | (3.8) | 10.8 | (6.7) |
| 1724 | Allyltrichlorosilane, stabilized (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 125 | (400) | 1.0 | (0.6) | 2.9 | (1.8) |
| 1725 | Aluminum bromide, anhydrous (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 95 | (300) | 1.0 | (0.6) | 2.7 | (1.7) |
| 1726 | Aluminum chloride, anhydrous (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 60 | (200) | 0.5 | (0.3) | 1.6 | (1.0) |
| 1728 | Amyltrichlorosilane (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 60 | (200) | 0.5 | (0.3) | 1.6 | (1.0) |
| 1732 | Antimony pentafluoride (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.6 | (0.4) | 155 | (500) | 1.6 | (1.0) | 3.7 | (2.3) |
| 1736 | Benzoyl chloride (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 30 | (100) | 0.3 | (0.2) | 1.1 | (0.7) |
| 1741 | Boron trichloride | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 60 | (200) | 0.6 | (0.4) | 1.6 | (1.0) |
| 1744 | Bromine | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 185 | (600) | 1.6 | (1.0) | 4.0 | (2.5) |
| 1744 | Bromine, solution | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 185 | (600) | 1.6 | (1.0) | 4.0 | (2.5) |
| 1745 | Bromine pentafluoride (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.8 | (0.5) | 215 | (700) | 1.9 | (1.2) | 4.2 | (2.6) |
| 1745 | Bromine pentafluoride (when spilled on land) | 60 | (200) | 0.5 | (0.3) | 1.3 | (0.8) | 245 | (800) | 2.3 | (1.4) | 5.0 | (3.1) |
| 1746 | Bromine trifluoride (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.6 | (0.4) | 185 | (600) | 2.1 | (1.3) | 5.5 | (3.4) |
| 1746 | Bromine trifluoride (when spilled on land) | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 60 | (200) | 0.3 | (0.2) | 0.8 | (0.5) |
| 1747 | Butyltrichlorosilane (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 60 | (200) | 0.5 | (0.3) | 1.8 | (1.1) |
| 1749 | Chlorine trifluoride | 60 | (200) | 0.5 | (0.3) | 1.6 | (1.0) | 335 | (1100) | 3.4 | (2.1) | 7.7 | (4.8) |
| 1752 | Chloroacetyl chloride (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 60 | (200) | 0.3 | (0.2) | 1.3 | (0.8) |
| 1752 | Chloroacetyl chloride (when spilled on land) | 30 | (100) | 0.2 | (0.1) | 0.5 | (0.3) | 95 | (300) | 0.8 | (0.5) | 1.6 | (1.0) |
| 1754 | Chlorosulfonic acid (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 60 | (200) | 0.5 | (0.3) | 1.4 | (0.9) |
| 1754 | Chlorosulfonic acid (when spilled on land) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 30 | (100) | 0.2 | (0.1) | 0.5 | (0.3) |
| 1754 | Chlorosulfonic acid and Sulfur trioxide mixture (when spilled in water) | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1754 | Chlorosulfonic acid and Sulfur trioxide mixture (when spilled on land) | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1754 | Chlorosulphonic acid (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 60 | (200) | 0.5 | (0.3) | 1.4 | (0.9) |
| 1754 | Chlorosulphonic acid (when spilled on land) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 30 | (100) | 0.2 | (0.1) | 0.5 | (0.3) |
| 1754 | Chlorosulphonic acid and Sulphur trioxide mixture (when spilled in water) | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1754 | Chlorosulphonic acid and Sulphur trioxide mixture (when spilled on land) | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1754 | Sulfur trioxide and Chlorosulfonic acid mixture (when spilled in water) | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1754 | Sulfur trioxide and Chlorosulfonic acid mixture (when spilled on land) | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1754 | Sulphur trioxide and Chlorosulphonic acid mixture (when spilled in water) | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1754 | Sulphur trioxide and Chlorosulphonic acid mixture (when spilled on land) | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1758 | Chromium oxychloride (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 60 | (200) | 0.3 | (0.2) | 1.3 | (0.8) |
| 1777 | Fluorosulfonic acid (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 60 | (200) | 0.5 | (0.3) | 1.4 | (0.9) |
| 1777 | Fluorosulphonic acid (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 60 | (200) | 0.5 | (0.3) | 1.4 | (0.9) |
| 1801 | Octyltrichlorosilane (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 95 | (300) | 0.8 | (0.5) | 2.4 | (1.5) |
| 1806 | Phosphorus pentachloride (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 125 | (400) | 1.0 | (0.6) | 2.9 | (1.8) |
| 1809 | Phosphorus trichloride (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 125 | (400) | 1.1 | (0.7) | 2.6 | (1.6) |
| 1809 | Phosphorus trichloride (when spilled on land) | 30 | (100) | 0.2 | (0.1) | 0.6 | (0.4) | 125 | (400) | 1.1 | (0.7) | 2.7 | (1.7) |
| 1810 | Phosphorus oxychloride (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 95 | (300) | 1.0 | (0.6) | 2.6 | (1.6) |
| 1810 | Phosphorus oxychloride (when spilled on land) | 30 | (100) | 0.2 | (0.1) | 0.5 | (0.3) | 95 | (300) | 0.8 | (0.5) | 1.8 | (1.1) |
| 1818 | Silicon tetrachloride (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 125 | (400) | 1.3 | (0.8) | 3.4 | (2.1) |
| 1828 | Sulfur chlorides (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 60 | (200) | 0.6 | (0.4) | 2.3 | (1.4) |
| 1828 | Sulfur chlorides (when spilled on land) | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 60 | (200) | 0.5 | (0.3) | 1.0 | (0.6) |
| 1828 | Sulphur chlorides (when spilled in water) | 30 | (100) | 0.2 | (0.1) | 0.2 | (0.1) | 60 | (200) | 0.6 | (0.4) | 2.3 | (1.4) |
| 1828 | Sulphur chlorides (when spilled on land) | 30 | (100) | 0.2 | (0.1) | 0.3 | (0.2) | 60 | (200) | 0.5 | (0.3) | 1.0 | (0.6) |

| | | | | | | | | | | | | |
|---|----|-------|-----|-------|-----|-------|-----|--------|-----|-------|-----|-------|
| 1829 Sulfur trioxide | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1829 Sulfur trioxide, inhibited | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1829 Sulfur trioxide, stabilized | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1829 Sulfur trioxide, uninhibited | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1829 Sulphur trioxide | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1829 Sulphur trioxide, inhibited | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1829 Sulphur trioxide, stabilized | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1829 Sulphur trioxide, uninhibited | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1831 Oleum | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1831 Oleum, with not less than 30% free Sulfur trioxide | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1831 Oleum, with not less than 30% free Sulphur trioxide | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1831 Sulfuric acid, fuming | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1831 Sulfuric acid, fuming, with not less than 30% free Sulfur trioxide | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1831 Sulphuric acid, fuming | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
| 1831 Sulphuric acid, fuming, with not less than 30% free Sulphur trioxide | 60 | (200) | 0.3 | (0.2) | 1.1 | (0.7) | 305 | (1000) | 2.1 | (1.3) | 5.6 | (3.5) |
