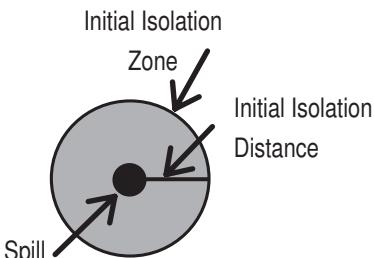


## **HOW TO USE TABLE 1 – INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

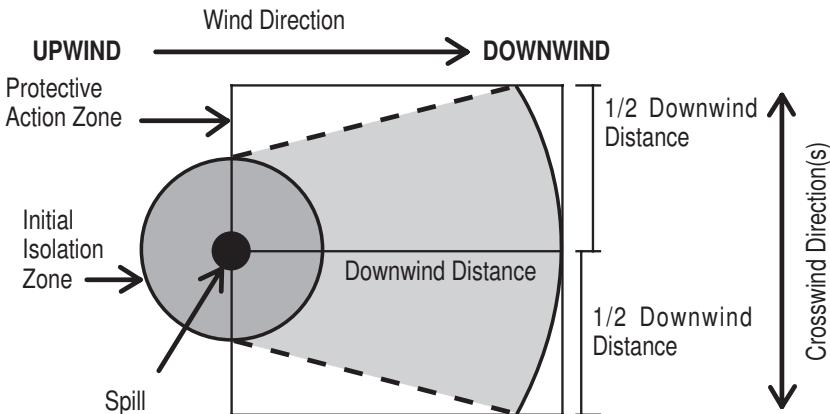
- (1) The responder should already have:
- identified the material by its ID number and name (if you cannot find an ID number, use the Name of Material index in the blue section to find that number);
  - confirmed that the material is highlighted in green in the yellow or blue section. If not, Table 1 doesn't apply;
  - found the three-digit guide for the material, in order to consult emergency actions it recommends along with this table; and
  - **noted the wind direction**
- (2) Look in Table 1 (green section) for the ID number and name of the material involved. Some ID numbers have more than one shipping name listed. Look for the specific name of the material. If you do not know the shipping name and Table 1 lists more than one name for the same ID number, use the entry with the largest distances.
- (3) Determine if the incident involves a **SMALL** or **LARGE** spill and if it is **DAY** or **NIGHT**. A **SMALL SPILL** consists of a release of 208 liters (55 US gallons) or less. This generally corresponds to a spill from a single small package (for example, a drum), a small cylinder, or a small leak from a large package. A **LARGE SPILL** consists of a release of more than 208 liters (55 US gallons). This usually involves a spill from a large package, or multiple spills from many small packages. **DAY** is any time after sunrise and before sunset. **NIGHT** is any time between sunset and sunrise.
- (4) Look up the **INITIAL ISOLATION DISTANCE**. This distance defines the radius of a zone (initial isolation zone) surrounding the spill in **ALL DIRECTIONS**. In this zone, protective clothing and respiratory protection is required. Evacuate the general public in a direction perpendicular to wind direction (crosswind) and away from the spill.
- (5) Look up the **PROTECTIVE ACTION DISTANCE**. For a given material, spill size, and whether day or night, Table 1 gives the downwind distance—in kilometers and miles—from the spill or leak source, for which you should consider protective actions. For practical purposes, the protective action zone (i.e., the area in which people are at risk of harmful exposure) is a square. Its length and width are the same as the downwind distance shown in Table 1. Protective actions are the steps you take to preserve the health and safety of emergency responders and



the public. **People in this area should be evacuated and/or sheltered-in-place.** For more information, consult the "Protective Actions" section.

- (6) Initiate protective actions beginning with those closest to the spill site and working away in a downwind direction. When a water-reactive TIH (PIH in the US) producing material is spilled into a river or stream, the source of the toxic gas may move with the current or stretch from the spill point downstream for a large distance.

In the figure below, the spill is located at the center of the small black circle. The larger circle represents the initial isolation zone around the spill. The square (the protective action zone) is the area in which you should take protective actions.



- Note 1:** For factors that may change the protective action distances, see the "Introduction to Green Tables" section.
- Note 2:** When a product in Table 1 has the mention (when spilled in water), you can refer to Table 2 for the list of gases produced when these materials are spilled in water. The TIH gases indicated in Table 2 are for information purposes only.
- Note 3:** For the instantaneous release of the entire contents of a package (e.g., as a result of terrorism, sabotage or catastrophic failure), the distances should be doubled.

For more information on the material, safety precautions and mitigation procedures, call the emergency response telephone number listed on the shipping paper or the appropriate response agency as soon as possible.

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
<b>Refer to Table 3</b>										
1005	125	Ammonia, anhydrous	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)					
1005	125	Anhydrous ammonia								
1008	125	Boron trifluoride	30 m (100 ft)	0.2 km (0.1 mi)	0.7 km (0.5 mi)	400 m (1250 ft)	2.4 km (1.5 mi)	4.7 km (2.9 mi)		
1008	125	Boron trifluoride, compressed								
1016	119	Carbon monoxide, compressed	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	200 m (600 ft)	1.2 km (0.7 mi)	3.9 km (2.4 mi)		
1017	124	Chlorine	60 m (200 ft)	0.3 km (0.2 mi)	1.5 km (0.9 mi)					
1026	119	Cyanogen	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.2 mi)	60 m (200 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)		
1040	119P	Ethylene oxide	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)					
1040	119P	Ethylene oxide with nitrogen								
1045	124	Fluorine, compressed	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	100 m (300 ft)	0.5 km (0.3 mi)	2.3 km (1.4 mi)		
1048	125	Hydrogen bromide, anhydrous	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	150 m (500 ft)	1.0 km (0.7 mi)	3.2 km (2.0 mi)		
1050	125	Hydrogen chloride, anhydrous	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)					
1051	117P	Hydrogen cyanide, stabilized	60 m (200 ft)	0.2 km (0.1 mi)	0.7 km (0.4 mi)	200 m (600 ft)	0.7 km (0.5 mi)	1.8 km (1.1 mi)		
1052	125	Hydrogen fluoride, anhydrous	30 m (100 ft)	0.1 km (0.1 mi)	0.5 km (0.3 mi)					
1053	117	Hydrogen sulfide	30 m (100 ft)	0.1 km (0.1 mi)	0.5 km (0.3 mi)	400 m (1250 ft)	2.4 km (1.5 mi)	6.3 km (4.0 mi)		
1053	117	Hydrogen sulphide								
1061	118	Methylamine, anhydrous	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	200 m (600 ft)	0.6 km (0.4 mi)	2.1 km (1.3 mi)		
1062	123	Methyl bromide	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	150 m (500 ft)	0.3 km (0.2 mi)	0.7 km (0.5 mi)		
1064	117	Methyl mercaptan	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	200 m (600 ft)	1.3 km (0.8 mi)	3.9 km (2.4 mi)		
1067	124	Dinitrogen tetroxide	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.3 mi)	400 m (1250 ft)	1.4 km (0.9 mi)	3.3 km (2.1 mi)		
1067	124	Nitrogen dioxide								

**TABLE 1**

"+" means distance can be larger in certain atmospheric conditions

1069	125	Nitrosyl chloride	30 m (100 ft)	0.2 km (0.2 mi)	1.0 km (0.7 mi)	800 m (2500 ft)	4.3 km (2.7 mi)	9.6 km (6.0 mi)
1076	125	Phosgene	100 m (300 ft)	0.6 km (0.4 mi)	2.5 km (1.6 mi)	500 m (1500 ft)	3.0 km (1.9 mi)	9.5 km (5.9 mi)
1079	125	Sulfur dioxide	100 m (300 ft)	0.6 km (0.4 mi)	2.6 km (1.6 mi)			
1079	125	Sulphur dioxide						
1082	119P	Refrigerant gas R-1113	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	60 m (200 ft)	0.4 km (0.3 mi)	0.7 km (0.5 mi)
1082	119P	Trifluorochloroethylene, stabilized						
1092	131P	Acrolein, stabilized	100 m (300 ft)	1.3 km (0.8 mi)	3.5 km (2.2 mi)	600 m (2000 ft)	6.8 km (4.2 mi)	11.1 km (6.9 mi)
1093	131P	Acrylonitrile, stabilized	30 m (100 ft)	0.2 km (0.2 mi)	0.6 km (0.4 mi)	100 m (300 ft)	1.3 km (0.8 mi)	2.3 km (1.5 mi)
1098	131	Allyl alcohol	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.8 km (0.5 mi)	1.2 km (0.8 mi)
1135	131	Ethylene chlorohydrin	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
1143	131P	Crotonaldehyde	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	0.7 km (0.5 mi)
1143	131P	Crotonaldehyde, stabilized						
1162	155	Dimethylidichlorosilane (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.4 km (0.2 mi)	1.2 km (0.8 mi)
1163	131	Dimethylhydrazine, unsymmetrical	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)	100 m (300 ft)	1.0 km (0.7 mi)	1.8 km (1.1 mi)
1182	155	Ethyl chloroformate	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.6 km (0.4 mi)	0.9 km (0.6 mi)
1183	139	Ethylidichlorosilane (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.5 km (0.9 mi)
1185	131P	Ethylenimine, stabilized	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)	200 m (600 ft)	1.0 km (0.6 mi)	1.8 km (1.1 mi)
1196	155	Ethyldichlorosilane (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.5 km (0.3 mi)	150 m (500 ft)	1.8 km (1.2 mi)	3.7 km (2.3 mi)
1238	155	Methyl chloroformate	30 m (100 ft)	0.2 km (0.2 mi)	0.5 km (0.4 mi)	150 m (500 ft)	1.2 km (0.7 mi)	2.2 km (1.4 mi)
1239	131	Methyl chloromethyl ether	60 m (200 ft)	0.5 km (0.3 mi)	1.5 km (1.0 mi)	300 m (1000 ft)	3.4 km (2.1 mi)	5.7 km (3.6 mi)

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		Then PROTECT persons Downwind during DAY		(From a large package or from many small packages)		Then PROTECT persons Downwind during NIGHT	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
1242	139	Methyl dichlorosilane <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	60 m (200 ft)	0.5 km (0.4 mi)	1.7 km (1.1 mi)		
1244	131	Methylhydrazine	30 m (100 ft)	0.3 km (0.2 mi)	0.6 km (0.4 mi)	150 m (500 ft)	1.5 km (0.9 mi)	2.2 km (1.4 mi)		
1250	155	Methyltrichlorosilane <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	60 m (200 ft)	0.6 km (0.4 mi)	1.9 km (1.2 mi)		
1251	131P	Methyl vinyl ketone, stabilized	100 m (300 ft)	0.3 km (0.2 mi)	0.7 km (0.5 mi)	800 m (2500 ft)	1.7 km (1.1 mi)	2.8 km (1.8 mi)		
1259	131	Nickel carbonyl	100 m (300 ft)	1.4 km (0.9 mi)	5.2 km (3.3 mi)	1000 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)	
1295	139	Trichlorosilane <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.5 km (0.9 mi)		
1298	155	Trimethylchlorosilane <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.4 km (0.2 mi)	1.0 km (0.6 mi)		
1305	155P	Vinyltrichlorosilane <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.4 km (0.3 mi)	1.3 km (0.8 mi)		
1340	139	Phosphorus pentasulfide, free from yellow and white phosphorus <i>(when spilled in water)</i>								
1340	139	Phosphorus pentasulfide, free from yellow and white phosphorus <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.2 mi)	1.0 km (0.6 mi)		
1360	139	Calcium phosphide <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.3 mi)	200 m (600 ft)	0.8 km (0.5 mi)	2.7 km (1.7 mi)		

**TABLE 1**

"+" means distance can be larger in certain atmospheric conditions

1380	135	Pentaborane	60 m (200 ft)	0.6 km (0.4 mi)	2.0 km (1.3 mi)	300 m (1000 ft)	3.0 km (1.9 mi)	6.5 km (4.1 mi)
1384	135	Sodium dithionite <i>(when spilled in water)</i>	60 m (200 ft)	0.1 km (0.1 mi)	0.4 km (0.3 mi)	60 m (200 ft)	0.5 km (0.3 mi)	2.1 km (1.3 mi)
1384	135	Sodium hydrosulfite <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.3 mi)	60 m (200 ft)	0.5 km (0.3 mi)	2.1 km (1.3 mi)
1384	135	Sodium hydrosulfite <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.8 km (1.1 mi)
1390	139	Alkali metal amides <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.8 km (1.1 mi)
1397	139	Aluminum phosphide <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.7 km (0.4 mi)	400 m (1250 ft)	1.6 km (1.0 mi)	4.7 km (2.9 mi)
1419	139	Magnesium aluminum phosphide <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.6 km (0.4 mi)	400 m (1250 ft)	1.4 km (0.9 mi)	4.1 km (2.6 mi)
1432	139	Sodium phosphide <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.2 mi)	300 m (1000 ft)	1.0 km (0.6 mi)	3.0 km (1.9 mi)
1510	143	Tetranitromethane	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	30 m (100 ft)	0.4 km (0.3 mi)	0.7 km (0.4 mi)
1541	156	Acetone cyanol/dlin stabilized <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	60 m (200 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)
1556	152	Methyl dichloroarsine	150 m (500 ft)	1.4 km (0.9 mi)	2.2 km (1.4 mi)	300 m (1000 ft)	4.0 km (2.5 mi)	5.8 km (3.6 mi)
1560	157	Arsenic chloride	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	100 m (300 ft)	1.0 km (0.7 mi)	1.5 km (1.0 mi)
1560	157	Arsenic trichloride	30 m (100 ft)	0.4 km (0.3 mi)	1.2 km (0.8 mi)	150 m (500 ft)	1.8 km (1.1 mi)	3.3 km (2.1 mi)
1569	131	Bromoacetone	60 m (200 ft)	0.5 km (0.4 mi)	1.2 km (0.8 mi)	200 m (600 ft)	2.4 km (1.5 mi)	3.7 km (2.3 mi)
1580	154	Chloropicrin	30 m (100 ft)	0.1 km (0.1 mi)	0.6 km (0.4 mi)	300 m (1000 ft)	2.1 km (1.3 mi)	5.9 km (3.7 mi)
1581	123	Chloropicrin and methyl bromide mixture	30 m (100 ft)	0.1 km (0.1 mi)	0.5 km (0.3 mi)	60 m (200 ft)	0.5 km (0.3 mi)	2.1 km (1.3 mi)
1582	119	Chloropicrin and methyl chloride mixture	30 m (100 ft)	0.1 km (0.1 mi)	0.5 km (0.3 mi)	60 m (200 ft)	0.5 km (0.3 mi)	2.1 km (1.3 mi)

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
1583	154	Chloropicrin mixture, n.o.s.	30 m (100 ft)	0.1 km (0.1 mi)	0.6 km (0.4 mi)	300 m (1000 ft)	2.1 km (1.3 mi)	5.9 km (3.7 mi)		
1589	125	Cyanogen chloride, stabilized	300 m (1000 ft)	1.9 km (1.2 mi)	6.6 km (4.1 mi)	1000 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)		
1595	156	Dimethyl sulfate	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	60 m (200 ft)	0.2 km (0.1 mi)	0.7 km (0.4 mi)		
1596	156	Dimethyl sulphate	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)		
1605	154	Ethylene dibromide	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)		
1612	123	Hexaethyl tetraphosphate and compressed gas mixture	100 m (300 ft)	0.8 km (0.5 mi)	2.7 km (1.7 mi)	400 m (1250 ft)	3.5 km (1250 ft)	8.1 km (5.1 mi)		
1613	154	Hydrocyanic acid, aqueous solution, with not more than 20% hydrogen cyanide, aqueous solution, with not more than 20% hydrogen cyanide	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	100 m (300 ft)	0.5 km (0.3 mi)	1.1 km (0.7 mi)		
1614	152	Hydrogen cyanide, stabilized (absorbed)	60 m (200 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)	150 m (500 ft)	0.5 km (0.3 mi)	1.5 km (1.0 mi)		
1647	151	Methyl bromide and ethylene dibromide mixture, liquid	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	150 m (500 ft)	0.3 km (0.2 mi)	0.7 km (0.5 mi)		
1660	124	Nitric oxide, compressed	30 m (100 ft)	0.1 km (0.1 mi)	0.6 km (0.4 mi)	100 m (300 ft)	0.6 km (0.4 mi)	2.2 km (1.4 mi)		
1670	157	Perchloromethyl mercaptan	30 m (100 ft)	0.3 km (0.2 mi)	0.4 km (0.2 mi)	100 m (300 ft)	0.8 km (0.5 mi)	1.3 km (0.8 mi)		
1672	151	Phenylcarbamylamine chloride	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	0.7 km (0.4 mi)		
1680	157	Potassium cyanide, solid (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	60 m (200 ft)	0.2 km (0.1 mi)	0.7 km (0.4 mi)		

**TABLE 1**

"+" means distance can be larger in certain atmospheric conditions

1689	<b>157</b>	Sodium cyanide, solid <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	60 m (200 ft)	0.2 km (0.2 mi)	0.9 km (0.6 mi)
1695	<b>131</b>	Chloroacetone, stabilized	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.4 km (0.3 mi)	0.6 km (0.4 mi)
1716	<b>156</b>	Acetyl bromide <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.2 mi)	0.7 km (0.4 mi)
1717	<b>155</b>	Acetyl chloride <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	60 m (200 ft)	0.7 km (0.4 mi)	2.0 km (1.2 mi)
1722	<b>155</b>	Allyl chlorocarbonate	100 m (300 ft)	0.3 km (0.2 mi)	0.8 km (0.5 mi)	400 m (1250 ft)	1.5 km (0.9 mi)	2.4 km (1.5 mi)
1722	<b>155</b>	Allyl chloroformate	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.4 km (0.2 mi)	1.2 km (0.8 mi)
1724	<b>155</b>	Allyltrichlorosilane, stabilized <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.4 km (0.2 mi)	1.2 km (0.8 mi)
1725	<b>137</b>	Aluminum bromide, anhydrous <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)
1726	<b>137</b>	Aluminum chloride, anhydrous <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.4 km (0.2 mi)	1.5 km (1.0 mi)
1728	<b>156</b>	Amyltrichlorosilane <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.4 km (0.2 mi)	1.2 km (0.7 mi)
1732	<b>157</b>	Antimony pentafluoride <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	100 m (300 ft)	0.8 km (0.5 mi)	3.0 km (1.9 mi)
1741	<b>125</b>	Boron trichloride <b>(when spilled on land)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	100 m (300 ft)	0.6 km (0.4 mi)	1.3 km (0.8 mi)
1741	<b>125</b>	Boron trichloride <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.2 mi)	100 m (300 ft)	0.9 km (0.6 mi)	2.8 km (1.7 mi)
1744	<b>154</b>	Bromine						
1744	<b>154</b>	Bromine, solution						
1744	<b>154</b>	Bromine, solution (Inhalation Hazard Zone A)						

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
1744	154	Bromine, solution (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.4 km (0.3 mi)	0.5 km (0.3 mi)	0.5 km (0.3 mi)	0.5 km (0.3 mi)
1745	144	Bromine pentfluoride <b>(when spilled on land)</b>	100 m (300 ft)	0.9 km (0.5 mi)	2.7 km (1.7 mi)	500 m (1500 ft)	5.7 km (3.6 mi)	10.8 km (6.7 mi)	10.8 km (6.7 mi)	10.8 km (6.7 mi)
1745	144	Bromine pentfluoride <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	100 m (300 ft)	0.9 km (0.6 mi)	3.0 km (1.9 mi)	3.0 km (1.9 mi)	3.0 km (1.9 mi)
1746	144	Bromine trifluoride <b>(when spilled on land)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.5 km (0.2 mi)	0.5 km (0.2 mi)	0.5 km (0.2 mi)
1746	144	Bromine trifluoride <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	100 m (300 ft)	0.8 km (0.5 mi)	2.8 km (1.8 mi)	2.8 km (1.8 mi)	2.8 km (1.8 mi)
1747	155	Butyltrichlorosilane <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.4 km (0.2 mi)	1.2 km (0.7 mi)	1.2 km (0.7 mi)	1.2 km (0.7 mi)
1749	124	Chlorine trifluoride	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.7 km (2.3 mi)	3.7 km (2.3 mi)	3.7 km (2.3 mi)
1752	156	Chloroacetyl chloride <b>(when spilled on land)</b>	30 m (100 ft)	0.3 km (0.2 mi)	0.6 km (0.4 mi)	100 m (300 ft)	1.2 km (0.8 mi)	1.9 km (1.2 mi)	1.9 km (1.2 mi)	1.9 km (1.2 mi)
1752	156	Chloroacetyl chloride <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.3 mi)	0.4 km (0.3 mi)	0.4 km (0.3 mi)
1753	156	Chlorophenyltrichlorosilane <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.4 mi)	0.5 km (0.4 mi)	0.5 km (0.4 mi)

**TABLE 1**

"+" means distance can be larger in certain atmospheric conditions

1754	<b>137</b>	Chlorosulfonic acid (with or without sulfur trioxide) <b>(when spilled on land)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.3 km (0.2 mi)
1754	<b>137</b>	Chlorosulfonic acid (with or without sulfur trioxide) <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.7 km (1.1 mi)
1754	<b>137</b>	Chlorosulfonic acid (with or without sulphur trioxide) <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)
1758	<b>137</b>	Chromium oxychloride <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)
1762	<b>156</b>	Cyclohexyltrichlorosilane <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.2 mi)	0.8 km (0.5 mi)
1763	<b>156</b>	Cyclohexyltrichlorosilane <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.2 mi)	0.8 km (0.5 mi)
1765	<b>156</b>	Dichloroacetyl chloride <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.5 km (0.3 mi)
1766	<b>156</b>	Dichlorophenyltrichlorosilane <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.4 km (0.3 mi)	1.4 km (0.9 mi)
1767	<b>155</b>	Diethyl dichlorosilane <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.2 mi)	0.6 km (0.4 mi)
1769	<b>156</b>	Diphenyl dichlorosilane <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.2 mi)	0.7 km (0.5 mi)
1771	<b>156</b>	Dodecyltrichlorosilane <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.8 km (0.5 mi)

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
(From a small package or small leak from a large package)										
1777	137	Fluorosulfonic acid (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	
1777	137	Fluorosulfophoric acid (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	
1781	156	Hexadecyltrichlorosilane (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	
1784	156	Heptyltrichlorosilane (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.9 km (0.6 mi)	
1799	156	Nonyltrichlorosilane (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	1.0 km (0.6 mi)	
1800	156	Octadecyltrichlorosilane (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.9 km (0.6 mi)	
1801	156	Octyltrichlorosilane (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	1.0 km (0.6 mi)	
1804	156	Phenyltrichlorosilane (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	1.0 km (0.6 mi)	
1806	137	Phosphorus pentachloride (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.2 mi)	0.9 km (0.6 mi)	
1808	137	Phosphorus tribromide (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	
1809	137	Phosphorus trichloride (when spilled on land)	30 m (100 ft)	0.2 km (0.2 mi)	0.6 km (0.4 mi)	100 m (300 ft)	1.1 km (0.7 mi)	2.0 km (1.3 mi)		

**TABLE 1**

"+" means distance can be larger in certain atmospheric conditions

1809	<b>137</b>	Phosphorus trichloride <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.8 km (1.1 mi)
1810	<b>137</b>	Phosphorus oxychloride <b>(when spilled on land)</b>	30 m (100 ft)	0.3 km (0.2 mi)	0.6 km (0.4 mi)	100 m (300 ft)	1.1 km (0.7 mi)	1.8 km (1.2 mi)
1810	<b>137</b>	Phosphorus oxychloride <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.5 km (1.0 mi)
1815	<b>155</b>	Propionyl chloride <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)
1816	<b>155</b>	Propyltrichlorosilane <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.4 km (0.3 mi)	1.3 km (0.8 mi)
1818	<b>157</b>	Silicon tetrachloride <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	60 m (200 ft)	0.6 km (0.4 mi)	2.0 km (1.3 mi)
1828	<b>137</b>	Sulfur chlorides <b>(when spilled on land)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	60 m (200 ft)	0.3 km (0.2 mi)	0.4 km (0.3 mi)
1828	<b>137</b>	Sulphur chlorides <b>(when spilled on land)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.1 mi)	0.7 km (0.4 mi)
1828	<b>137</b>	Sulfur chlorides <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.1 mi)	0.7 km (0.4 mi)
1829	<b>137</b>	Sulfur trioxide, stabilized Sulphur trioxide, stabilized	60 m (200 ft)	0.4 km (0.2 mi)	1.0 km (0.6 mi)	300 m (1000 ft)	2.9 km (1.8 mi)	6.3 km (4.0 mi)
1831	<b>137</b>	Sulfuric acid, fuming Sulphuric acid, fuming	60 m (200 ft)	0.4 km (0.2 mi)	1.0 km (0.6 mi)	300 m (1000 ft)	2.9 km (1.8 mi)	6.3 km (4.0 mi)
1834	<b>137</b>	Sulfuryl chloride <b>(when spilled on land)</b>	30 m (100 ft)	0.2 km (0.1 mi)	0.4 km (0.3 mi)	60 m (200 ft)	0.8 km (0.5 mi)	1.5 km (0.9 mi)
1834	<b>137</b>	Sulphuryl chloride <b>(when spilled on land)</b>						

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
1834	137	Sulfuryl chloride (when spilled in water) Sulphuryl chloride (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	1.1 km (0.2 mi)	1.1 km (0.7 mi)
1834	137	Thionyl chloride (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.2 mi)	0.2 km (0.2 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.5 km (0.2 mi)	0.5 km (0.4 mi)
1836	137	Thionyl Chloride (when spilled in water)	100 m (300 ft)	0.9 km (0.6 mi)	2.9 km (1.8 mi)	600 m (2000 ft)	7.6 km (4.7 mi)	11.0+ km (7.0+ mi)		
1838	137	Titanium tetrachloride (when spilled on land)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.4 km (0.3 mi)	0.5 km (0.3 mi)	0.5 km (0.3 mi)
1838	137	Titanium tetrachloride (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	1.2 km (0.2 mi)	1.2 km (0.7 mi)
1859	125	Silicon tetrafluoride Silicon tetrafluoride, Compressed	30 m (100 ft)	0.2 km (0.1 mi)	0.8 km (0.5 mi)	100 m (300 ft)	0.5 km (0.3 mi)	1.8 km (0.3 mi)		1.2 km (1.2 mi)
1892	151	Ethyldichloroarsine	150 m (500 ft)	1.5 km (1.0 mi)	2.2 km (1.4 mi)	400 m (1250 ft)	5.1 km (3.2 mi)	6.4 km (3.2 mi)		4.0 km (4.0 mi)
1893	156	Acetyl iodide (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.9 km (0.2 mi)		0.6 km (0.6 mi)
1911	119	Diborane	60 m (200 ft)	0.3 km (0.2 mi)	1.2 km (0.7 mi)	300 m (1000 ft)	1.6 km (1.0 mi)	4.6 km (1.0 mi)		2.9 km (2.9 mi)
1911	119	Diborane mixtures								

**TABLE 1**

"+" means distance can be larger in certain atmospheric conditions

1923	135	Calcium dithionite <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.3 mi)	60 m (200 ft)	0.5 km (0.4 mi)	2.1 km (1.3 mi)
1923	135	Calcium hydrosulfite <i>(when spilled in water)</i>						
1923	135	Calcium hydrosulfite <i>(when spilled in water)</i>						
1929	135	Potassium dithionite <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.2 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.9 km (1.2 mi)
1929	135	Potassium hydrosulfite <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.2 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.9 km (1.2 mi)
1929	135	Potassium hydrosulfite <i>(when spilled in water)</i>						
1931	171	Zinc dithionite <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.2 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.9 km (1.2 mi)
1931	171	Zinc hydrosulfite <i>(when spilled in water)</i>						
1931	171	Zinc hydrosulfite <i>(when spilled in water)</i>						
1953	119	Compressed gas, poisonous, flammable, n.o.s.	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3.9 mi)	10.5 km (6.5 mi)
1953	119	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)						
1953	119	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.2 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.1 km (1.9 mi)
1953	119	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)
1953	119	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)						

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

			SMALL SPILLS				LARGE SPILLS					
ID No.	Guide No.	Name of Material	(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY		Then PROTECT persons Downwind during NIGHT	
			Meters (Feet)	Kilometers (Miles)	Meters (Kilometers) DAY	Kilometers (Miles) NIGHT	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
1953	119	Compressed gas, toxic, flammable, n.o.s. Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3.9 mi)	10.5 km (6.5 mi)				
1953	119	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.2 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.1 km (1.9 mi)				
1953	119	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)				
1953	119	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)										
1955	123	Compressed gas, poisonous, n.o.s. Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone A)	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3.9 mi)	10.5 km (6.5 mi)				
1955	123	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.7 km (2.3 mi)				

**TABLE 1**

"+" means distance can be larger in certain atmospheric conditions

1955	123	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)
1955	123	Compressed gas, toxic, n.o.s. Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone D)	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3.9 mi)	10.5 km (6.5 mi)
1955	123	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.7 km (2.3 mi)
1955	123	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)
1955	123	Organic phosphate compound mixed with compressed gas	100 m (300 ft)	1.0 km (0.7 mi)	3.4 km (2.1 mi)	500 m (1500 ft)	4.4 km (2.7 mi)	9.6 km (6.0 mi)
1955	123	Organic phosphate mixed with compressed gas						
1955	123	Organic phosphorus compound mixed with compressed gas						
1967	123	Insecticide gas, poisonous, n.o.s.	100 m (300 ft)	1.0 km (0.7 mi)	3.4 km (2.1 mi)	500 m (1500 ft)	4.4 km (2.7 mi)	9.6 km (6.0 mi)
1967	123	Insecticide gas, toxic, n.o.s.						
1967	123	Parathion and compressed gas mixture						
1975	124	Nitric oxide and dinitrogen teroxide mixture	30 m (100 ft)	0.1 km (0.1 mi)	0.6 km (0.4 mi)	100 m (300 ft)	0.6 km (0.4 mi)	2.2 km (1.4 mi)
1975	124	Nitric oxide and nitrogen dioxide mixture						
1994	136	Iron pentacarbonyl	100 m (300 ft)	0.9 km (0.6 mi)	2.1 km (1.3 mi)	400 m (1250 ft)	5.2 km (3.2 mi)	7.8 km (4.8 mi)

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
2004	135	Magnesium diamide (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.8 km (1.1 mi)		
2011	139	Magnesium phosphide (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.6 km (0.4 mi)	400 m (1250 ft)	1.4 km (0.9 mi)	3.9 km (2.4 mi)		
2012	139	Potassium phosphide (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	200 m (600 ft)	0.9 km (0.6 mi)	2.8 km (1.8 mi)		
2013	139	Stronium phosphide (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	200 m (600 ft)	0.8 km (0.5 mi)	2.7 km (1.7 mi)		
2032	157	Nitric acid, red fuming	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	150 m (500 ft)	0.3 km (0.2 mi)	0.5 km (0.3 mi)		
2186	125	Hydrogen chloride, refrigerated liquid	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)				Refer to Table 3	
2188	119	Arsine	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3.9 mi)	10.5 km (6.5 mi)		
2189	119	Dichlorosilane	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.2 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.1 km (1.9 mi)		
2190	124	Oxygen difluoride, compressed	300 m (1000 ft)	1.8 km (1.1 mi)	7.2 km (4.5 mi)	1000 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)		
2191	123	Sulfuryl fluoride	30 m (100 ft)	0.1 km (0.1 mi)	0.5 km (0.3 mi)	400 m (1250 ft)	2.2 km (1.4 mi)	5.0 km (3.1 mi)		
2191	123	Sulphuryl fluoride								
2192	119	Germane	150 m (500 ft)	0.9 km (0.5 mi)	3.3 km (2.1 mi)	600 m (2000 ft)	3.6 km (2.3 mi)	7.4 km (4.6 mi)		
2194	125	Selenium hexafluoride	200 m (600 ft)	1.1 km (0.7 mi)	3.4 km (2.1 mi)	600 m (2000 ft)	3.9 km (2.4 mi)	7.6 km (4.8 mi)		
2195	125	Tellurium hexafluoride	1000 m (3000 ft)	5.9 km (3.7 mi)	11.1 km (6.9 mi)	1000 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)		
2196	125	Tungsten hexafluoride	30 m (100 ft)	0.2 km (0.1 mi)	0.8 km (0.5 mi)	150 m (500 ft)	0.8 km (0.5 mi)	2.8 km (1.7 mi)		
2197	125	Hydrogen iodide, anhydrous	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)		

**TABLE 1**

"+" means distance can be larger in certain atmospheric conditions

2198	125	Phosphorus pentaffluoride	30 m (100 ft)	0.2 km (0.2 mi)	1.0 km (0.7 mi)	200 m (600 ft)	1.1 km (0.7 mi)	3.5 km (2.2 mi)
2198	125	Phosphorus pentaffluoride, Compressed	60 m (200 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	400 m (1250 ft)	1.3 km (0.8 mi)	3.7 km (2.3 mi)
2199	119	Phosphine	300 m (1000 ft)	1.7 km (1.1 mi)	6.0 km (3.7 mi)	1000 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
2202	117	Hydrogen selenide, anhydrous	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	300 m (1000 ft)	1.5 km (1.0 mi)	3.6 km (2.3 mi)
2204	119	Carbonyl sulfide	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	300 m (1000 ft)	0.7 km (0.4 mi)	1.1 km (0.7 mi)
2204	119	Carbonyl sulphide	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.5 km (0.3 mi)	0.6 km (0.4 mi)
2232	153	Chloroacetaldehyde	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.7 km (0.4 mi)	1.1 km (0.7 mi)
2232	153	2-Chloroethanol	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	0.6 km (0.4 mi)
2285	155	Isocyanoacetobenzotrifluoride	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	300 m (1000 ft)	0.8 km (0.5 mi)	2.3 km (1.4 mi)
2308	157	Nitrosylsulfuric acid, liquid (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.6 km (1.0 mi)	2.5 km (1.6 mi)
2308	157	Nitrosylsulfuric acid, liquid (when spilled in water)	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.4 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.4 km (0.2 mi)
2334	131	Allylamine	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)
2337	131	Phenyl mercaptan	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.2 mi)
2353	155	Butyryl chloride (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)
2382	131	Dimethylhydrazine, Symmetrical	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.8 km (0.5 mi)	1.3 km (0.8 mi)
2395	155	Isobutryyl chloride (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)
2407	155	Isopropyl chloroformate	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.2 mi)	60 m (200 ft)	0.5 km (0.4 mi)	0.9 km (0.6 mi)
2417	125	Carbonyl fluoride	100 m (300 ft)	0.7 km (0.5 mi)	2.5 km (1.6 mi)	600 m (2000 ft)	3.8 km (2.4 mi)	8.2 km (5.1 mi)
2418	125	Sulfur tetrafluoride	100 m (300 ft)	0.5 km (0.3 mi)	2.4 km (1.5 mi)	400 m (1250 ft)	2.4 km (1.5 mi)	5.9 km (3.7 mi)
2418	125	Sulphur tetrafluoride	100 m (300 ft)	0.7 km (0.4 mi)	2.7 km (1.7 mi)	1000 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
2420	125	Hexafluoroacetone	100 m (300 ft)	0.7 km (0.4 mi)	2.7 km (1.7 mi)	1000 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
(From a small package or small leak from a large package)										
2421	124	Nitrogen trioxide	60 m (200 ft)	0.3 km (0.2 mi)	1.2 km (0.8 mi)	200 m (600 ft)	1.4 km (0.9 mi)	4.3 km (2.7 mi)		
2434	156	Dibenzylidichlorosilane (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)		
2435	156	Ethylphenyldichlorosilane (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.1 mi)	0.6 km (0.4 mi)		
2437	156	Methylphenyldichlorosilane (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.2 mi)	0.8 km (0.5 mi)		
2438	131	Trimethylacetyl chloride	60 m (200 ft)	0.5 km (0.3 mi)	1.0 km (0.7 mi)	200 m (600 ft)	2.3 km (1.5 mi)	3.3 km (2.1 mi)		
2442	156	Trichloroacetyl chloride	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.7 km (0.5 mi)	1.1 km (0.7 mi)		
2474	156	Thiophosgene	60 m (200 ft)	0.6 km (0.4 mi)	1.8 km (1.1 mi)	200 m (600 ft)	2.3 km (1.4 mi)	4.2 km (2.6 mi)		
2477	131	Methyl isothiocyanate	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.4 km (0.3 mi)		
2478	155	Isocyanate solution, flammable, poisonous, n.o.s.								
2478	155	Isocyanate solution, flammable, toxic, n.o.s.	60 m (200 ft)	0.8 km (0.5 mi)	1.8 km (1.2 mi)	400 m (1250 ft)	4.7 km (3.0 mi)	7.0 km (4.4 mi)		
2478	155	Isocyanates, flammable, poisonous, n.o.s.								
2478	155	Isocyanates, flammable, toxic, n.o.s.								
2480	155P	Methyl isocyanate	150 m (500 ft)	1.7 km (1.1 mi)	5.2 km (3.3 mi)	1000 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)		
2481	155	Ethyl isocyanate	150 m (500 ft)	2.0 km (1.3 mi)	5.3 km (3.3 mi)	1000 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)		
2482	155P	n-Propyl isocyanate	100 m (300 ft)	1.3 km (0.8 mi)	2.8 km (1.8 mi)	600 m (2000 ft)	7.8 km (4.8 mi)	10.7 km (6.6 mi)		

**TABLE 1**

"+" means distance can be larger in certain atmospheric conditions

2483	<b>155P</b>	Isopropyl isocyanate	150 m (500 ft)	1.5 km (1.0 mi)	3.3 km (2.1 mi)	1000 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
2484	<b>155</b>	tert-Butyl isocyanate	60 m (200 ft)	0.8 km (0.5 mi)	1.8 km (1.2 mi)	400 m (1250 ft)	4.7 km (3.0 mi)	7.0 km (4.4 mi)
2485	<b>155P</b>	n-Butyl isocyanate	60 m (200 ft)	0.6 km (0.4 mi)	1.2 km (0.8 mi)	300 m (1000 ft)	2.9 km (1.8 mi)	4.2 km (2.6 mi)
2486	<b>155P</b>	Isobutyl isocyanate	60 m (200 ft)	0.6 km (0.4 mi)	1.3 km (0.8 mi)	300 m (1000 ft)	3.4 km (2.1 mi)	4.8 km (3.0 mi)
2487	<b>155</b>	Phenyl isocyanate	100 m (300 ft)	0.9 km (0.6 mi)	1.5 km (0.9 mi)	400 m (1250 ft)	4.2 km (2.6 mi)	5.4 km (3.4 mi)
2488	<b>155</b>	Cyclohexyl isocyanate	30 m (100 ft)	0.3 km (0.2 mi)	0.4 km (0.3 mi)	100 m (300 ft)	1.1 km (0.7 mi)	1.4 km (0.9 mi)
2495	<b>144</b>	Iodine pentaffluoride (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	100 m (300 ft)	0.9 km (0.6 mi)	3.2 km (2.0 mi)
2521	<b>131P</b>	Diketene, stabilized	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.7 km (0.4 mi)	1.0 km (0.6 mi)
2534	<b>119</b>	Methylchlorosilane	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	0.8 km (0.5 mi)	1.8 km (1.1 mi)
2548	<b>124</b>	Chlorine pentaffluoride	100 m (300 ft)	0.5 km (0.3 mi)	2.5 km (1.6 mi)	800 m (2500 ft)	5.1 km (3.2 mi)	11.0+ km (7.0+ mi)
2605	<b>155</b>	Methoxymethyl isocyanate	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.2 mi)	60 m (200 ft)	0.7 km (0.4 mi)	0.9 km (0.6 mi)
2606	<b>155</b>	Methyl orthosilicate	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.7 km (0.5 mi)	1.1 km (0.7 mi)
2644	<b>151</b>	Methyl iodide	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	100 m (300 ft)	0.3 km (0.2 mi)	0.7 km (0.4 mi)
2646	<b>151</b>	Hexachlorocyclopentadiene	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.3 km (0.2 mi)
2668	<b>131</b>	Chloroacetonitrile	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.4 km (0.2 mi)
2676	<b>119</b>	Stibine	60 m (200 ft)	0.3 km (0.2 mi)	1.6 km (1.0 mi)	200 m (600 ft)	1.3 km (0.8 mi)	4.1 km (2.6 mi)
2691	<b>137</b>	Phosphorus pentabromide (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.3 mi)
2692	<b>157</b>	Boron tribromide (when spilled on land)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.2 km (0.1 mi)	0.4 km (0.3 mi)
2692	<b>157</b>	Boron tribromide (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.4 km (0.3 mi)	1.4 km (0.9 mi)
2740	<b>155</b>	n-Propyl chloroformate	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.6 km (0.4 mi)	1.0 km (0.7 mi)

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
2742	155	Chloroformates, poisonous, corrosive, flammable, n.o.s. Chloroformates, toxic, corrosive, flammable, n.o.s.	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	0.7 km (0.4 mi)	0.7 km (0.5 mi)
2742	155	n-Butyl chloroformate	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.4 km (0.3 mi)	0.4 km (0.3 mi)
2743	155	Lithium nitride <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.4 km (0.3 mi)	1.6 km (1.0 mi)	1.6 km (1.0 mi)
2806	139	Ethyl chloroformate	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	0.7 km (0.5 mi)	0.7 km (0.5 mi)
2826	155	Ethyl phosphorous dichloride, anhydrous	30 m (100 ft)	0.3 km (0.2 mi)	0.7 km (0.5 mi)	100 m (300 ft)	1.4 km (0.9 mi)	2.3 km (1.4 mi)	2.3 km (1.4 mi)	2.3 km (1.4 mi)
2845	135	Methyl phosphorous dichloride	30 m (100 ft)	0.4 km (0.3 mi)	1.2 km (0.7 mi)	200 m (600 ft)	2.6 km (1.6 mi)	4.2 km (2.6 mi)	4.2 km (2.6 mi)	4.2 km (2.6 mi)
2901	124	Bromine chloride	100 m (300 ft)	0.5 km (0.3 mi)	1.8 km (1.1 mi)	1000 m (3000 ft)	5.7 km (3.5 mi)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)
2927	154	Ethyl phosphonohiobic dichloride, anhydrous	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	0.2 km (0.1 mi)
2927	154	Ethyl phosphorodichloride	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.3 km (0.2 mi)	0.3 km (0.2 mi)	0.3 km (0.2 mi)	0.3 km (0.2 mi)
2965	139	Boron trifluoride dimethyl etherate <i>(when spilled in water)</i>	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.2 mi)	100 m (300 ft)	0.9 km (0.6 mi)	2.8 km (1.7 mi)	2.8 km (1.7 mi)	2.8 km (1.7 mi)

**TABLE 1**

"+" means distance can be larger in certain atmospheric conditions

2977	<b>166</b>	Radioactive material, uranium hexafluoride, fissile <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.4 km (0.2 mi)	1.6 km (1.0 mi)
2977	<b>166</b>	Uranium hexafluoride, radioactive material, fissile <b>(when spilled in water)</b>						
2978	<b>166</b>	Radioactive material, uranium hexafluoride, non fissile or fissile-excepted <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	30 m (100 ft)	0.4 km (0.2 mi)	1.6 km (1.0 mi)
2978	<b>166</b>	Uranium hexafluoride, radioactive material, non fissile or fissile-excepted <b>(when spilled in water)</b>						
2985	<b>155</b>	Chlorosilanes, flammable, corrosive, n.o.s. <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)
2986	<b>155</b>	Chlorosilanes, corrosive, flammable, n.o.s. <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)
2987	<b>156</b>	Chlorosilanes, corrosive, n.o.s. <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)
2988	<b>139</b>	Chlorosilanes, water-reactive, flammable, corrosive, n.o.s. <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)
3023	<b>131</b>	2-Methyl-2-heptanethiol	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.6 km (0.4 mi)	0.8 km (0.5 mi)
3048	<b>157</b>	Aluminum phosphide pesticide <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.7 km (0.4 mi)	400 m (1250 ft)	1.6 km (1.0 mi)	4.5 km (2.8 mi)
3057	<b>125</b>	Trifluoroacetyl chloride	30 m (100 ft)	0.2 km (0.1 mi)	0.9 km (0.6 mi)	800 m (2500 ft)	4.9 km (3.1 mi)	11.0+ km (7.0+ mi)

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		Then PROTECT persons Downwind during DAY		(From a large package or from many small packages)		Then PROTECT persons Downwind during NIGHT	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
3079	131P	Methylacrylonitrile, stabilized	30 m (100 ft)	0.3 km (0.2 mi)	0.7 km (0.5 mi)	150 m (500 ft)	1.7 km (1.1 mi)	2.8 km (1.7 mi)		
3083	124	Pechloryl fluoride	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	1000 m (3000 ft)	5.5 km (3.4 mi)	10.9 km (6.8 mi)		
3160	119	Liquefied gas, poisonous, flammable, n.o.s.	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3.9 mi)	10.5 km (6.5 mi)		
3160	119	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.2 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.1 km (1.9 mi)		
3160	119	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)		
3160	119	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)		
3160	119	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)								
3160	119	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3.9 mi)	10.5 km (6.5 mi)		
3160	119	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.2 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.1 km (1.9 mi)		

**TABLE 1**

"+" means distance can be larger in certain atmospheric conditions

3160	119	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)
3160	119	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3.9 mi)	10.5 km (6.5 mi)
3162	123	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone A)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.7 km (2.3 mi)
3162	123	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)
3162	123	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.7 km (2.3 mi)
3162	123	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone D)	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3.9 mi)	10.5 km (6.5 mi)
3162	123	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone A)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.7 km (2.3 mi)
3162	123	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)
3162	123	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.7 km (2.3 mi)
3162	123	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone D)	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3.9 mi)	10.5 km (6.5 mi)
3246	156	Methanesulfonyl chloride	30 m (100 ft)	0.2 km (0.2 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.7 km (0.5 mi)	1.0 km (0.6 mi)
3246	156	Methanesulphonyl chloride	30 m (100 ft)	0.2 km (0.2 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.7 km (0.5 mi)	1.0 km (0.6 mi)
3275	131	Nitriles, poisonous, flammable, n.o.s.	30 m (100 ft)	0.3 km (0.2 mi)	0.7 km (0.5 mi)	150 m (500 ft)	1.7 km (1.1 mi)	2.8 km (1.7 mi)
3275	131	Nitriles, toxic, flammable, n.o.s.						

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
3276	151	Nitriles, liquid, poisonous, n.o.s.	30 m (100 ft)	0.3 km (0.2 mi)	0.7 km (0.5 mi)	150 m (500 ft)	1.7 km (1.1 mi)	2.8 km (1.7 mi)		
3276	151	Nitriles, liquid, toxic, n.o.s.								
3276	151	Nitriles, poisonous, liquid, n.o.s.								
3276	151	Nitriles, toxic, liquid, n.o.s.								
3278	151	Organophosphorus compound, liquid, poisonous, n.o.s.	30 m (100 ft)	0.4 km (0.3 mi)	1.2 km (0.7 mi)	200 m (600 ft)	2.6 km (1.6 mi)	4.2 km (2.6 mi)		
3278	151	Organophosphorus compound, liquid, toxic, n.o.s.								
3279	131	Organophosphorus compound, poisonous, flammable, n.o.s.	30 m (100 ft)	0.4 km (0.3 mi)	1.2 km (0.7 mi)	200 m (600 ft)	2.6 km (1.6 mi)	4.2 km (2.6 mi)		
3279	131	Organophosphorus compound, toxic, flammable, n.o.s.								
3280	151	Organoarsenic compound, liquid, n.o.s.	30 m (100 ft)	0.2 km (0.1 mi)	0.7 km (0.5 mi)	150 m (500 ft)	1.7 km (1.1 mi)	3.6 km (2.2 mi)		
3281	151	Metal carbonyls, liquid, n.o.s.	100 m (300 ft)	1.4 km (0.9 mi)	5.2 km (3.3 mi)	1000 m (3000 ft)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)	11.0+ km (7.0+ mi)	
3294	131	Hydrogen cyanide, solution in alcohol, with not more than 45% hydrogen cyanide	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.2 mi)	150 m (500 ft)	0.7 km (0.5 mi)	2.0 km (1.2 mi)		
3300	119P	Ethylene oxide and carbon dioxide mixture, with more than 87% ethylene oxide	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.2 mi)	150 m (500 ft)	0.7 km (0.5 mi)	2.0 km (1.2 mi)		

TABLE 1

"+" means distance can be larger in certain atmospheric conditions

3303	124	Compressed gas, poisonous, oxidizing, n.o.s. Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)	100 m (300 ft)	0.5 km (0.3 mi)	2.5 km (1.6 mi)	800 m (2500 ft)	5.1 km (3.2 mi)	11.0+ km (7.0+ mi)
3303	124	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	500 m (1500 ft)	3.5 km (2.2 mi)	9.9 km (6.2 mi)
3303	124	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.6 km (0.4 mi)	100 m (300 ft)	0.6 km (0.4 mi)	2.2 km (1.4 mi)
3303	124	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)						
3303	124	Compressed gas, toxic, oxidizing, n.o.s. Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)	100 m (300 ft)	0.5 km (0.3 mi)	2.5 km (1.6 mi)	800 m (2500 ft)	5.1 km (3.2 mi)	11.0+ km (7.0+ mi)
3303	124	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	500 m (1500 ft)	3.5 km (2.2 mi)	9.9 km (6.2 mi)
3303	124	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.6 km (0.4 mi)	100 m (300 ft)	0.6 km (0.4 mi)	2.2 km (1.4 mi)
3303	124	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)						

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

			SMALL SPILLS				LARGE SPILLS			
ID No.	Guide No.	Name of Material	(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during NIGHT	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
3304	125	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)	200 m (600 ft)	1.1 km (0.7 mi)	3.4 km (2.1 mi)	600 m (2000 ft)	300 m (1000 ft)	1.6 km (0.1 mi)	3.9 km (2.4 mi)	7.6 km (4.8 mi)
3304	125	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.7 km (1.0 mi)	3.9 km (2.4 mi)	7.6 km (4.8 mi)
3304	125	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.5 km (0.3 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.2 km (0.9 mi)	3.7 km (1.0 mi)	7.6 km (4.8 mi)
3304	125	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	150 m (500 ft)	0.8 km (0.5 mi)	2.0 km (0.5 mi)	2.0 km (0.5 mi)	4.8 km (1.3 mi)
3304	125	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)	200 m (600 ft)	1.1 km (0.7 mi)	3.4 km (2.1 mi)	600 m (2000 ft)	3.9 km (2.4 mi)	7.6 km (4.8 mi)	3.9 km (2.4 mi)	7.6 km (4.8 mi)
3304	125	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	300 m (1000 ft)	1.6 km (1.0 mi)	3.7 km (1.0 mi)	3.7 km (1.0 mi)	7.6 km (4.8 mi)
3304	125	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.5 km (0.3 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.2 km (0.9 mi)	3.2 km (0.9 mi)	7.6 km (4.8 mi)

TABLE 1

"+" means distance can be larger in certain atmospheric conditions

3304	125	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	150 m (500 ft)	0.8 km (0.5 mi)	2.0 km (1.3 mi)
3305	119	Compressed gas, poisonous, flammable, corrosive, n.o.s. Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3.9 mi)	10.5 km (6.5 mi)
3305	119	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.2 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.1 km (1.9 mi)
3305	119	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)
3305	119	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)						
3305	119	Compressed gas, toxic, flammable, corrosive, n.o.s. Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3.9 mi)	10.5 km (6.5 mi)
3305	119	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.2 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.1 km (1.9 mi)
3305	119	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)
3305	119	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)						

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
3306	124	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	100 m (300 ft)	0.5 km (0.3 mi)	2.5 km (1.6 mi)	1000 m (3000 ft)	5.5 km (3.4 mi)	11.0+ km (7.0+ mi)		
3306	124	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	800 m (2500 ft)	5.1 km (3.2 mi)	10.9 km (6.8 mi)		
3306	124	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.5 km (0.3 mi)	300 m (1000 ft)	1.6 km (1.0 mi)	3.2 km (2.0 mi)		
3306	124	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	150 m (500 ft)	0.8 km (0.5 mi)	2.0 km (1.3 mi)		
3306	124	Compressed gas, toxic, oxidizing, corrosive, n.o.s. Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	100 m (300 ft)	0.5 km (0.3 mi)	2.5 km (1.6 mi)	1000 m (3000 ft)	5.5 km (3.4 mi)	11.0+ km (7.0+ mi)		
3306	124	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	800 m (2500 ft)	5.1 km (3.2 mi)	10.9 km (6.8 mi)		
3306	124	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.5 km (0.3 mi)	300 m (1000 ft)	1.6 km (1.0 mi)	3.2 km (2.0 mi)		

TABLE 1

"+" means distance can be larger in certain atmospheric conditions

3306	<b>124</b>	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	150 m (500 ft)	0.8 km (500 ft)	0.5 mi (0.5 mi)	2.0 km (1.3 mi)
3307	<b>124</b>	Liquefied gas, poisonous, oxidizing, n.o.s.	100 m (300 ft)	0.5 km (0.3 mi)	2.5 km (1.6 mi)	800 m (2500 ft)	5.1 km (3.2 mi)	11.0+ km (7.0+ mi)	
3307	<b>124</b>	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)							
3307	<b>124</b>	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	500 m (1500 ft)	2.8 km (1.8 mi)	10.9 km (6.8 mi)	
3307	<b>124</b>	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.6 km (0.4 mi)	100 m (300 ft)	0.6 km (0.4 mi)	0.4 mi (0.4 mi)	2.2 km (1.4 mi)
3307	<b>124</b>	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)							
3307	<b>124</b>	Liquefied gas, toxic, oxidizing, n.o.s.	100 m (300 ft)	0.5 km (0.3 mi)	2.5 km (1.6 mi)	800 m (2500 ft)	5.1 km (3.2 mi)	11.0+ km (7.0+ mi)	
3307	<b>124</b>	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)							
3307	<b>124</b>	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	500 m (1500 ft)	2.8 km (1.8 mi)	10.9 km (6.8 mi)	
3307	<b>124</b>	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.6 km (0.4 mi)	100 m (300 ft)	0.6 km (0.4 mi)	0.4 mi (0.4 mi)	2.2 km (1.4 mi)
3307	<b>124</b>	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)							

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS				
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY		
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	
3308	125	Liquefied gas, poisonous, corrosive, n.o.s.	200 m (600 ft)	1.1 km (0.7 mi)	3.4 km (2.1 mi)	600 m (2000 ft)	300 m (1000 ft)	1.6 km (1.0 mi)	7.6 km (2.4 mi)	3.9 km (2.4 mi)	7.6 km (4.8 mi)
3308	125	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)	30 m (100 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	300 m (1000 ft)	1.4 km (1000 ft)	1.4 km (0.9 mi)	3.7 km (2.0 mi)	1.6 km (1.0 mi)	3.7 km (2.3 mi)
3308	125	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.5 km (0.3 mi)	300 m (1000 ft)	1.4 km (1000 ft)	1.4 km (0.9 mi)	3.2 km (2.0 mi)	1.6 km (1.0 mi)	3.2 km (2.0 mi)
3308	125	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	150 m (500 ft)	0.8 km (300 ft)	0.8 km (0.5 mi)	2.0 km (1.3 mi)	0.8 km (0.5 mi)	2.0 km (1.3 mi)
3308	125	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	600 m (2000 ft)	3.9 km (1000 ft)	3.9 km (2.4 mi)	7.6 km (4.8 mi)	3.0 km (2.0 mi)	7.6 km (4.8 mi)
3308	125	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)	200 m (600 ft)	1.1 km (0.7 mi)	3.4 km (2.1 mi)	300 m (1000 ft)	1.6 km (1.0 mi)	3.7 km (2.3 mi)	7.6 km (4.8 mi)	3.0 km (2.0 mi)	7.6 km (4.8 mi)
3308	125	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	300 m (1000 ft)	1.6 km (1.0 mi)	3.7 km (2.3 mi)	7.6 km (4.8 mi)	3.0 km (2.0 mi)	7.6 km (4.8 mi)
3308	125	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.5 km (0.3 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.2 km (2.0 mi)	7.6 km (4.8 mi)	3.0 km (2.0 mi)	7.6 km (4.8 mi)

TABLE 1

"+" means distance can be larger in certain atmospheric conditions

3308	125	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	150 m (500 ft)	0.8 km (0.5 mi)	2.0 km (1.3 mi)
3309	119	Liquefied gas, poisonous, flammable, corrosive, n.o.s.	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3.9 mi)	10.5 km (6.5 mi)
3309	119	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	30 m (100 ft)	0.3 km (0.2 mi)	0.6 km (0.4 mi)	300 m (1000 ft)	2.5 km (1.6 mi)	3.1 km (1.9 mi)
3309	119	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)
3309	119	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.1 mi)	0.3 km (0.2 mi)	300 m (1000 ft)	2.5 km (1.6 mi)	3.1 km (1.9 mi)
3309	119	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.3 km (0.2 mi)	0.6 km (0.4 mi)	300 m (1000 ft)	2.5 km (1.6 mi)	3.1 km (1.9 mi)
3309	119	Liquefied gas, toxic, flammable, corrosive, n.o.s.	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3.9 mi)	10.5 km (6.5 mi)
3309	119	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	30 m (100 ft)	0.3 km (0.2 mi)	0.6 km (0.4 mi)	300 m (1000 ft)	2.5 km (1.6 mi)	3.1 km (1.9 mi)
3309	119	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (0.6 mi)	2.7 km (1.7 mi)
3309	119	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.1 mi)	0.3 km (0.2 mi)	300 m (1000 ft)	2.5 km (1.6 mi)	3.1 km (1.9 mi)
3309	119	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.3 km (0.2 mi)	0.6 km (0.4 mi)	300 m (1000 ft)	2.5 km (1.6 mi)	3.1 km (1.9 mi)

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
3310	124	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	100 m (300 ft)	0.5 km (0.3 mi)	2.5 km (1.6 mi)	1000 m (3000 ft)	5.1 km (3.2 mi)	11.0+ km (7.0+ mi)		
3310	124	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	800 m (2500 ft)	4.5 km (2.8 mi)	10.9 km (6.8 mi)		
3310	124	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.5 km (0.3 mi)	300 m (1000 ft)	1.6 km (1.0 mi)	3.2 km (2.0 mi)		
3310	124	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	150 m (500 ft)	0.8 km (0.5 mi)	2.0 km (1.3 mi)		
3310	124	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	100 m (300 ft)	0.5 km (0.3 mi)	2.5 km (1.6 mi)	1000 m (3000 ft)	5.1 km (3.2 mi)	11.0+ km (7.0+ mi)		
3310	124	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.2 mi)	1.1 km (0.7 mi)	800 m (2500 ft)	4.5 km (2.8 mi)	10.9 km (6.8 mi)		
3310	124	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.5 km (0.3 mi)	300 m (1000 ft)	1.6 km (1.0 mi)	3.2 km (2.0 mi)		

**TABLE 1**

"+" means distance can be larger in certain atmospheric conditions

3310	<b>124</b>	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	150 m (500 ft)	0.8 km (500 ft)	0.8 km (500 ft)	2.0 km (0.5 mi)	2.0 km (0.5 mi)	2.0 km (1.3 mi)
3318	<b>125</b>	Ammonia solution, with more than 50% ammonia	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	150 m (500 ft)	0.8 km (500 ft)	0.8 km (500 ft)	2.0 km (0.5 mi)	2.0 km (0.5 mi)	2.0 km (1.3 mi)
3355	<b>119</b>	Insecticide gas, poisonous, flammable, n.o.s.	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3000 ft)	6.2 km (3000 ft)	10.5 km (3.9 mi)	10.5 km (3.9 mi)	10.5 km (6.5 mi)
3355	<b>119</b>	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.2 mi)	300 m (1000 ft)	1.4 km (1000 ft)	1.4 km (1000 ft)	0.9 km (0.9 mi)	0.9 km (0.9 mi)	0.9 km (1.9 mi)
3355	<b>119</b>	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (500 ft)	1.0 km (500 ft)	0.6 mi (0.6 mi)	0.6 mi (0.6 mi)	0.6 mi (1.7 mi)
3355	<b>119</b>	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (500 ft)	1.0 km (500 ft)	2.7 km (0.6 mi)	2.7 km (0.6 mi)	2.7 km (1.7 mi)
3355	<b>119</b>	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	0.6 km (500 ft)	0.6 km (500 ft)	0.4 mi (0.4 mi)	0.4 mi (0.4 mi)	0.4 mi (1.0 mi)
3355	<b>119</b>	Insecticide gas, toxic, flammable, n.o.s.	150 m (500 ft)	1.0 km (0.6 mi)	3.9 km (2.4 mi)	1000 m (3000 ft)	6.2 km (3000 ft)	6.2 km (3000 ft)	10.5 km (3.9 mi)	10.5 km (3.9 mi)	10.5 km (6.5 mi)
3355	<b>119</b>	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.2 mi)	300 m (1000 ft)	1.4 km (1000 ft)	1.4 km (1000 ft)	0.9 mi (0.9 mi)	0.9 mi (0.9 mi)	0.9 mi (1.9 mi)
3355	<b>119</b>	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)	150 m (500 ft)	1.0 km (500 ft)	1.0 km (500 ft)	0.6 mi (0.6 mi)	0.6 mi (0.6 mi)	0.6 mi (1.7 mi)

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

			SMALL SPILLS				LARGE SPILLS			
ID No.	Guide No.	Name of Material	(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during NIGHT	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
3356	119	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.1 km (0.1 mi)	0.3 km (0.2 mi)		150 m (500 ft)	0.6 km (0.4 mi)	1.6 km (1.0 mi)	
3361	156	Chlorosilanes, poisonous, corrosive, n.o.s. (When spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)		60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	
3361	156	Chlorosilanes, toxic, corrosive, n.o.s. (when spilled in water)								
3362	155	Chlorosilanes, poisonous, corrosive, flammable, n.o.s. (When spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)		60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	
3362	155	Chlorosilanes, toxic, corrosive, flammable, n.o.s. (when spilled in water)								
3381	151	Poisonous by inhalation liquid, n.o.s. (Inhalation Hazard Zone A)	60 m (200 ft)	0.6 km (0.4 mi)	1.8 km (1.1 mi)		200 m (600 ft)	2.3 km (1.4 mi)	4.2 km (2.6 mi)	
3381	151	Toxic by inhalation liquid, n.o.s. (Inhalation Hazard Zone A)								
3382	151	Poisonous by inhalation liquid, n.o.s. (Inhalation Hazard Zone B)								
3382	151	Toxic by inhalation liquid, n.o.s. (Inhalation Hazard Zone B)								

TABLE 1

"+" means distance can be larger in certain atmospheric conditions

3383	131	Poisonous by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone A)	60 m (200 ft)	0.5 km (0.3 mi)	1.5 km (1.0 mi)	300 m (1000 ft)	3.4 km (2.1 mi)	5.7 km (3.6 mi)
3383	131	Toxic by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone A)						
3384	131	Poisonous by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.6 km (0.4 mi)	0.9 km (0.6 mi)
3384	131	Toxic by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone B)						
3385	139	Poisonous by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)	60 m (200 ft)	0.6 km (0.4 mi)	1.8 km (1.1 mi)	200 m (600 ft)	2.3 km (1.4 mi)	4.2 km (2.6 mi)
3385	139	Toxic by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)						
3386	139	Poisonous by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	0.8 km (0.5 mi)
3386	139	Toxic by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)						
3387	142	Poisonous by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)	60 m (200 ft)	0.5 km (0.3 mi)	1.5 km (1.0 mi)	300 m (1000 ft)	3.4 km (2.1 mi)	5.7 km (3.6 mi)
3387	142	Toxic by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)						

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
3388	142	Poisonous by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.11 km (0.06 mi)	150 m (500 ft)	0.3 km (0.2 mi)	0.3 km (0.2 mi)	0.5 km (0.3 mi)
3388	142	Toxic by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)								
3389	154	Poisonous by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone A)	100 m (300 ft)	0.3 km (0.2 mi)	0.3 km (0.2 mi)	0.7 km (0.5 mi)	800 m (2500 ft)	1.7 km (1.1 mi)	1.7 km (1.1 mi)	2.8 km (1.8 mi)
3389	154	Toxic by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone A)								
3390	154	Poisonous by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	0.5 km (0.3 mi)	0.6 km (0.4 mi)
3390	154	Toxic by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone B)								
3456	157	Nitrosulfuric acid, solid (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.4 km (0.3 mi)	200 m (600 ft)	0.7 km (0.4 mi)	0.7 km (0.4 mi)	2.3 km (1.5 mi)	
3456	157	Nitrosulfuric acid, solid (when spilled in water)								

TABLE 1

"+" means distance can be larger in certain atmospheric conditions

3488	131	Poisonous by inhalation liquid, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	60 m (200 ft)	0.5 km (0.3 mi)	1.5 km (1.0 mi)	300 m (1000 ft)	3.4 km (2.1 mi)	5.7 km (3.6 mi)
3488	131	Toxic by inhalation liquid, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)						
3489	131	Poisonous by inhalation liquid, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.6 km (0.4 mi)	0.9 km (0.6 mi)
3489	131	Toxic by inhalation liquid, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)						
3490	155	Poisonous by inhalation liquid, water-reactive, flammable, n.o.s. (Inhalation Hazard Zone A)	60 m (200 ft)	0.5 km (0.3 mi)	1.5 km (1.0 mi)	300 m (1000 ft)	3.4 km (2.1 mi)	5.7 km (3.6 mi)
3490	155	Toxic by inhalation liquid, water-reactive, flammable, n.o.s. (Inhalation Hazard Zone A)						
3491	155	Poisonous by inhalation liquid, water-reactive, flammable, n.o.s. (Inhalation Hazard Zone B)						
3491	155	Toxic by inhalation liquid, water-reactive, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	0.6 km (0.4 mi)	0.9 km (0.6 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS				
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY		
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	
3492	131	Poisonous by inhalation liquid, corrosive, flammable, n.o.s. (Inhalation Hazard Zone A)	60 m (200 ft)	0.5 km (0.3 mi)	1.5 km (1.0 mi)	300 m (1000 ft)	300 m (1000 ft)	3.4 km (2.1 mi)	5.7 km (3.6 mi)		
3492	131	Toxic by inhalation liquid, corrosive, flammable, n.o.s. (Inhalation Hazard Zone A)									
3493	131	Poisonous by inhalation liquid, corrosive, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.2 km (0.1 mi)	0.3 km (0.2 mi)	60 m (200 ft)	60 m (200 ft)	0.6 km (0.4 mi)	0.9 km (0.6 mi)		
3493	131	Toxic by inhalation liquid, corrosive, flammable, n.o.s. (Inhalation Hazard Zone B)									
3494	131	Petroleum sour crude oil, flammable, poisonous	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	60 m (200 ft)	0.5 km (0.3 mi)	0.8 km (0.5 mi)		
3494	131	Petroleum sour crude oil, flammable, toxic									
3507	166	Uranium hexafluoride, radioactive material, excepted package, less than 0.1 kg per package, non-fissile or fissile-excepted (when spilled in water)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)		
3507	166	Uranium hexafluoride, radioactive material, excepted package, less than 0.1 kg per package, non-fissile or fissile-excepted (when spilled in water)									

TABLE 1

"+" means distance can be larger in certain atmospheric conditions

33512	173	Adsorbed gas, poisonous, n.o.s. Adsorbed gas, poisonous, n.o.s. (Inhalation Hazard Zone A)						
33512	173	Adsorbed gas, poisonous, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
33512	173	Adsorbed gas, poisonous, n.o.s. (Inhalation Hazard Zone C)						
33512	173	Adsorbed gas, poisonous, n.o.s. (Inhalation Hazard Zone D)						
33512	173	Adsorbed gas, toxic, n.o.s. Adsorbed gas, toxic, n.o.s. (Inhalation Hazard Zone A)						
33512	173	Adsorbed gas, toxic, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
33512	173	Adsorbed gas, toxic, n.o.s. (Inhalation Hazard Zone C)						
33512	173	Adsorbed gas, toxic, n.o.s. (Inhalation Hazard Zone D)						
33514	173	Adsorbed gas, poisonous, flammable, n.o.s.						
33514	173	Adsorbed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)						
33514	173	Adsorbed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
33514	173	Adsorbed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)						
33514	173	Adsorbed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)						

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
3514	173	Adsorbed gas, toxic, flammable, n.o.s. Adsorbed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)								
3514	173	Adsorbed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
3514	173	Adsorbed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)								
3514	173	Adsorbed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)								
3515	173	Adsorbed gas, poisonous, oxidizing, n.o.s.								
3515	173	Adsorbed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)								
3515	173	Adsorbed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
3515	173	Adsorbed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)								
3515	173	Adsorbed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)								

TABLE 1

"+" means distance can be larger in certain atmospheric conditions

3515	173	Adsorbed gas, toxic, oxidizing, n.o.s.					
3515	173	Adsorbed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)					
3515	173	Adsorbed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)
3515	173	Adsorbed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)					
3515	173	Adsorbed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)					
3516	173	Adsorbed gas, poisonous, corrosive, n.o.s.					
3516	173	Adsorbed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)					
3516	173	Adsorbed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)
3516	173	Adsorbed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)					
3516	173	Adsorbed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)					

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during DAY	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
3516	173	Adsorbed gas, toxic, corrosive, n.o.s. Adsorbed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)								
3516	173	Adsorbed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
3516	173	Adsorbed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)								
3516	173	Adsorbed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)								
3517	173	Adsorbed gas, poisonous, flammable, corrosive, n.o.s. Adsorbed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)								
3517	173	Adsorbed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
3517	173	Adsorbed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)								
3517	173	Adsorbed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)								

TABLE 1

"+" means distance can be larger in certain atmospheric conditions

3517	173	Adsorbed gas, toxic, flammable, corrosive, n.o.s. Adsorbed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)						
3517	173	Adsorbed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
3517	173	Adsorbed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)						
3517	173	Adsorbed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)						
3518	173	Adsorbed gas, poisonous, oxidizing, corrosive, n.o.s. Adsorbed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)						
3518	173	Adsorbed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
3518	173	Adsorbed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)						
3518	173	Adsorbed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)						

**TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES**

ID No.	Guide No.	Name of Material	SMALL SPILLS				LARGE SPILLS			
			(From a small package or small leak from a large package)		(From a large package or from many small packages)		First ISOLATE in all Directions		Then PROTECT persons Downwind during NIGHT	
			Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)
3518	173	Absorbed gas, toxic, oxidizing, corrosive, n.o.s.								
3518	173	Absorbed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)								
3518	173	Absorbed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
3518	173	Absorbed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)								
3518	173	Absorbed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
3519	173	Boron trifluoride, adsorbed	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
3520	173	Chlorine, adsorbed	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
3521	173	Silicon tetrafluoride, adsorbed	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
3522	173	Arsine, adsorbed	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
3523	173	Germane, adsorbed	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
3524	173	Phosphorus pentfluoride, adsorbed	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
3525	173	Phosphine, adsorbed	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)
3526	173	Hydrogen selenide, adsorbed	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	0.1 km (0.1 mi)

**TABLE 1**

3539	123	Articles containing toxic gas, n.o.s.	30 m (100 ft)	0.3 km (0.2 mi)	1.1 km (0.7 mi)	300 m (1000 ft)	1.4 km (0.9 mi)	3.7 km (2.3 mi)
9191	143	Chlorine dioxide hydrate, frozen <b>(when spilled in water)</b>	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)
9202	168	Carbon monoxide, refrigerated liquid (cryogenic liquid)	30 m (100 ft)	0.1 km (0.1 mi)	0.2 km (0.1 mi)	200 m (600 ft)	1.2 km (0.7 mi)	3.9 km (2.4 mi)
9206	137	Methyl phosphonic dichloride	30 m (100 ft)	0.2 km (0.1 mi)	0.2 km (0.1 mi)	60 m (200 ft)	0.5 km (0.3 mi)	0.6 km (0.4 mi)
9263	156	Chloropivaloyl chloride	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.2 mi)	0.3 km (0.2 mi)
9264	151	3,5-Dichloro-2,4,6- trifluoropyridine	30 m (100 ft)	0.1 km (0.1 mi)	0.1 km (0.1 mi)	30 m (100 ft)	0.2 km (0.2 mi)	0.3 km (0.2 mi)
9269	132	Trimethoxysilane	30 m (100 ft)	0.2 km (0.2 mi)	0.7 km (0.4 mi)	150 m (500 ft)	1.4 km (0.9 mi)	2.4 km (1.5 mi)

**See Next Page for Table 2 - Water-Reactive Materials Which Produce Toxic Gases**"**+**" means distance can be larger in certain atmospheric conditions

## HOW TO USE TABLE 2 – WATER-REACTIVE MATERIALS WHICH PRODUCE TOXIC GASES

Table 2 lists materials which produce large amounts of Toxic Inhalation Hazard (TIH) (PIH in the US) gases when spilled in water, and identifies the TIH gases produced.

The materials are listed by order of ID number.

These water-reactive materials are easily identified in Table 1 as their names are immediately followed by (**when spilled in water**).

**Note 1:** The TIH gases indicated in Table 2 are for information purposes only. In Table 1, the initial isolation and protective action distances have already taken into consideration the TIH gases produced.

For example: Table 2 indicates that UN1689 sodium cyanide, when spilled in water, will generate hydrogen cyanide gas (HCN). In Table 1, you must refer to the distances for sodium cyanide and not the distances for hydrogen cyanide gas.

**Note 2:** Some water-reactive materials are also TIH materials themselves (e.g., UN1746 (Bromine trifluoride), UN1836 (Thionyl chloride)). In these instances, two entries are provided in Table 1 for land-based and water-based spills. If a water-reactive material only has one entry in Table 1 for (**when spilled in water**), and the product is **NOT** spilled in water, Tables 1 and 2 do **NOT** apply. Refer only to the appropriate Orange Guide.

**Note 3:** Materials classified as a Division 4.3 are substances that, on contact with water, are liable to become spontaneously **FLAMMABLE** or give off **FLAMMABLE** or sometimes **TOXIC** gases in dangerous quantities. For the purpose of this table, water-reactive materials are materials that generate substantial quantities of **TOXIC** gases rapidly after a spill into water; therefore, a material classified as a Division 4.3 will not always be included in Table 2.

**TABLE 2 - WATER-REACTIVE MATERIALS WHICH PRODUCE TOXIC GASES**
**Materials Which Produce Large Amounts of Toxic-by-Inhalation (TIH)  
(PIH in the US) Gas(es) When Spilled in Water**

ID No.	Guide No.	Name of Material	TIH Gas(es) Produced
1162	155	Dimethyldichlorosilane	HCl
1183	139	Ethyldichlorosilane	HCl
1196	155	Ethyltrichlorosilane	HCl
1242	139	Methyldichlorosilane	HCl
1250	155	Methyltrichlorosilane	HCl
1295	139	Trichlorosilane	HCl
1298	155	Trimethylchlorosilane	HCl
1305	155P	Vinyltrichlorosilane	HCl
1340	139	Phosphorus pentasulfide, free from yellow and white phosphorus	H <sub>2</sub> S
1340	139	Phosphorus pentasulphide, free from yellow and white phosphorus	H <sub>2</sub> S
1360	139	Calcium phosphide	PH <sub>3</sub>
1384	135	Sodium dithionite	H <sub>2</sub> S SO <sub>2</sub>
1384	135	Sodium hydrosulfite	H <sub>2</sub> S SO <sub>2</sub>
1384	135	Sodium hydrosulphite	H <sub>2</sub> S SO <sub>2</sub>
1390	139	Alkali metal amides	NH <sub>3</sub>
1397	139	Aluminum phosphide	PH <sub>3</sub>
1419	139	Magnesium aluminum phosphide	PH <sub>3</sub>
1432	139	Sodium phosphide	PH <sub>3</sub>
1541	156	Acetone cyanohydrin, stabilized	HCN
1680	157	Potassium cyanide, solid	HCN
1689	157	Sodium cyanide, solid	HCN
1716	156	Acetyl bromide	HBr
1717	155	Acetyl chloride	HCl
1724	155	Allyltrichlorosilane, stabilized	HCl

**Chemical Symbols for TIH (PIH in the US) Gases:**

Br <sub>2</sub>	Bromine	HF	Hydrogen fluoride	NO <sub>2</sub>	Nitrogen dioxide
Cl <sub>2</sub>	Chlorine	HI	Hydrogen iodide	PH <sub>3</sub>	Phosphine
HBr	Hydrogen bromide	H <sub>2</sub> S	Hydrogen sulfide	SO <sub>2</sub>	Sulfur dioxide
HCl	Hydrogen chloride	H <sub>2</sub> S	Hydrogen sulphide	SO <sub>2</sub>	Sulphur dioxide
HCN	Hydrogen cyanide	NH <sub>3</sub>	Ammonia		

**TABLE 2 - WATER-REACTIVE MATERIALS WHICH PRODUCE TOXIC GASES**

**Materials Which Produce Large Amounts of Toxic-by-Inhalation (TIH)  
(PIH in the US) Gas(es) When Spilled in Water**

<b>ID No.</b>	<b>Guide No.</b>	<b>Name of Material</b>	<b>TIH Gas(es) Produced</b>	
1725	137	Aluminum bromide, anhydrous		HBr
1726	137	Aluminum chloride, anhydrous		HCl
1728	156	Amyltrichlorosilane		HCl
1732	157	Antimony pentafluoride		HF
1741	125	Boron trichloride		HCl
1745	144	Bromine pentafluoride	HF	Br <sub>2</sub>
1746	144	Bromine trifluoride	HF	Br <sub>2</sub>
1747	155	Butyltrichlorosilane		HCl
1752	156	Chloroacetyl chloride		HCl
1753	156	Chlorophenyltrichlorosilane		HCl
1754	137	Chlorosulfonic acid (with or without sulfur trioxide)		HCl
1754	137	Chlorosulphonic acid (with or without sulphur trioxide)		HCl
1758	137	Chromium oxychloride		HCl
1762	156	Cyclohexenyltrichlorosilane		HCl
1763	156	Cyclohexyltrichlorosilane		HCl
1765	156	Dichloroacetyl chloride		HCl
1766	156	Dichlorophenyltrichlorosilane		HCl
1767	155	Diethyldichlorosilane		HCl
1769	156	Diphenyldichlorosilane		HCl
1771	156	Dodecyltrichlorosilane		HCl
1777	137	Fluorosulfonic acid		HF
1777	137	Fluorosulphonic acid		HF
1781	156	Hexadecyltrichlorosilane		HCl
1784	156	Hexyltrichlorosilane		HCl

**Chemical Symbols for TIH (PIH in the US) Gases:**

Br <sub>2</sub>	Bromine	HF	Hydrogen fluoride	NO <sub>2</sub>	Nitrogen dioxide
Cl <sub>2</sub>	Chlorine	HI	Hydrogen iodide	PH <sub>3</sub>	Phosphine
HBr	Hydrogen bromide	H <sub>2</sub> S	Hydrogen sulfide	SO <sub>2</sub>	Sulfur dioxide
HCl	Hydrogen chloride	H <sub>2</sub> S	Hydrogen sulphide	SO <sub>2</sub>	Sulphur dioxide
HCN	Hydrogen cyanide	NH <sub>3</sub>	Ammonia		

**TABLE 2 - WATER-REACTIVE MATERIALS WHICH PRODUCE TOXIC GASES**
**Materials Which Produce Large Amounts of Toxic-by-Inhalation (TIH)  
(PIH in the US) Gas(es) When Spilled in Water**

ID No.	Guide No.	Name of Material	TIH Gas(es) Produced
1799	156	Nonyltrichlorosilane	HCl
1800	156	Octadecyltrichlorosilane	HCl
1801	156	Octyltrichlorosilane	HCl
1804	156	Phenyltrichlorosilane	HCl
1806	137	Phosphorus pentachloride	HCl
1808	137	Phosphorus tribromide	HBr
1809	137	Phosphorus trichloride	HCl
1810	137	Phosphorus oxychloride	HCl
1815	155	Propionyl chloride	HCl
1816	155	Propyltrichlorosilane	HCl
1818	157	Silicon tetrachloride	HCl
1828	137	Sulfur chlorides	HCl SO <sub>2</sub> H <sub>2</sub> S
1828	137	Sulphur chlorides	HCl SO <sub>2</sub> H <sub>2</sub> S
1834	137	Sulfuryl chloride	HCl
1834	137	Sulphuryl chloride	HCl
1836	137	Thionyl chloride	HCl SO <sub>2</sub>
1838	137	Titanium tetrachloride	HCl
1898	156	Acetyl iodide	HI
1923	135	Calcium dithionite	H <sub>2</sub> S SO <sub>2</sub>
1923	135	Calcium hydrosulfite	H <sub>2</sub> S SO <sub>2</sub>
1923	135	Calcium hydrosulphite	H <sub>2</sub> S SO <sub>2</sub>
1929	135	Potassium dithionite	H <sub>2</sub> S SO <sub>2</sub>
1929	135	Potassium hydrosulfite	H <sub>2</sub> S SO <sub>2</sub>
1929	135	Potassium hydrosulphite	H <sub>2</sub> S SO <sub>2</sub>

**Chemical Symbols for TIH (PIH in the US) Gases:**

Br <sub>2</sub>	Bromine	HF	Hydrogen fluoride	NO <sub>2</sub>	Nitrogen dioxide
Cl <sub>2</sub>	Chlorine	HI	Hydrogen iodide	PH <sub>3</sub>	Phosphine
HBr	Hydrogen bromide	H <sub>2</sub> S	Hydrogen sulfide	SO <sub>2</sub>	Sulfur dioxide
HCl	Hydrogen chloride	H <sub>2</sub> S	Hydrogen sulphide	SO <sub>2</sub>	Sulphur dioxide
HCN	Hydrogen cyanide	NH <sub>3</sub>	Ammonia		

Use this list only when material is spilled in water.

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**TABLE 2 - WATER-REACTIVE MATERIALS WHICH PRODUCE TOXIC GASES**

**Materials Which Produce Large Amounts of Toxic-by-Inhalation (TIH)  
(PIH in the US) Gas(es) When Spilled in Water**

<b>ID No.</b>	<b>Guide No.</b>	<b>Name of Material</b>	<b>TIH Gas(es) Produced</b>
1931	171	Zinc dithionite	H <sub>2</sub> S SO <sub>2</sub>
1931	171	Zinc hydrosulfite	H <sub>2</sub> S SO <sub>2</sub>
1931	171	Zinc hydrosulphite	H <sub>2</sub> S SO <sub>2</sub>
2004	135	Magnesium diamide	NH <sub>3</sub>
2011	139	Magnesium phosphide	PH <sub>3</sub>
2012	139	Potassium phosphide	PH <sub>3</sub>
2013	139	Strontium phosphide	PH <sub>3</sub>
2308	157	Nitrosylsulfuric acid, liquid	NO <sub>2</sub>
2308	157	Nitrosylsulphuric acid, liquid	NO <sub>2</sub>
2353	155	Butyryl chloride	HCl
2395	155	Isobutyryl chloride	HCl
2434	156	Dibenzylidichlorosilane	HCl
2435	156	Ethylphenyldichlorosilane	HCl
2437	156	Methylphenyldichlorosilane	HCl
2495	144	Iodine pentafluoride	HF
2691	137	Phosphorus pentabromide	HBr
2692	157	Boron tribromide	HBr
2806	139	Lithium nitride	NH <sub>3</sub>
2965	139	Boron trifluoride dimethyl etherate	HF
2977	166	Radioactive material, uranium hexafluoride, fissile	HF
2977	166	Uranium hexafluoride, radioactive material, fissile	HF
2978	166	Radioactive material, uranium hexafluoride, non fissile or fissile-excepted	HF

**Chemical Symbols for TIH (PIH in the US) Gases:**

Br <sub>2</sub>	Bromine	HF	Hydrogen fluoride	NO <sub>2</sub>	Nitrogen dioxide
Cl <sub>2</sub>	Chlorine	HI	Hydrogen iodide	PH <sub>3</sub>	Phosphine
HBr	Hydrogen bromide	H <sub>2</sub> S	Hydrogen sulfide	SO <sub>2</sub>	Sulfur dioxide
HCl	Hydrogen chloride	H <sub>2</sub> S	Hydrogen sulphide	SO <sub>2</sub>	Sulphur dioxide
HCN	Hydrogen cyanide	NH <sub>3</sub>	Ammonia		

## TABLE 2

**TABLE 2 - WATER-REACTIVE MATERIALS WHICH PRODUCE TOXIC GASES**

**Materials Which Produce Large Amounts of Toxic-by-Inhalation (TIH)  
(PIH in the US) Gas(es) When Spilled in Water**

ID No.	Guide No.	Name of Material	TIH Gas(es) Produced
2978	<b>166</b>	Uranium hexafluoride, radioactive material, non fissile or fissile-excepted	HF
2985	<b>155</b>	Chlorosilanes, flammable, corrosive, n.o.s.	HCl
2986	<b>155</b>	Chlorosilanes, corrosive, flammable, n.o.s.	HCl
2987	<b>156</b>	Chlorosilanes, corrosive, n.o.s.	HCl
2988	<b>139</b>	Chlorosilanes, water-reactive, flammable, corrosive, n.o.s.	HCl
3048	<b>157</b>	Aluminum phosphide pesticide	PH <sub>3</sub>
3361	<b>156</b>	Chlorosilanes, poisonous, corrosive, n.o.s.	HCl
3361	<b>156</b>	Chlorosilanes, toxic, corrosive, n.o.s.	HCl
3362	<b>155</b>	Chlorosilanes, poisonous, corrosive, flammable, n.o.s.	HCl
3362	<b>155</b>	Chlorosilanes, toxic, corrosive, flammable, n.o.s.	HCl
3456	<b>157</b>	Nitrosylsulfuric acid, solid	NO <sub>2</sub>
3456	<b>157</b>	Nitrosylsulphuric acid, solid	NO <sub>2</sub>
3507	<b>166</b>	Uranium hexafluoride, radioactive material, excepted package, less than 0.1 kg per package, non-fissile or fissile-excepted	HF
9191	<b>143</b>	Chlorine dioxide, hydrate, frozen	Cl <sub>2</sub>

**Chemical Symbols for TIH (PIH in the US) Gases:**

Br <sub>2</sub>	Bromine	HF	Hydrogen fluoride	NO <sub>2</sub>	Nitrogen dioxide
Cl <sub>2</sub>	Chlorine	HI	Hydrogen iodide	PH <sub>3</sub>	Phosphine
HBr	Hydrogen bromide	H <sub>2</sub> S	Hydrogen sulfide	SO <sub>2</sub>	Sulfur dioxide
HCl	Hydrogen chloride	H <sub>2</sub> S	Hydrogen sulphide	SO <sub>2</sub>	Sulphur dioxide
HCN	Hydrogen cyanide	NH <sub>3</sub>	Ammonia		

## HOW TO USE TABLE 3 – INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES FOR LARGE SPILLS FOR DIFFERENT QUANTITIES OF SIX COMMON TIH (PIH IN THE US) GASES

Table 3 lists Toxic Inhalation Hazard (TIH) materials that may be more commonly encountered.

The selected materials are:

- UN1005 - Ammonia, anhydrous
- UN1017 - Chlorine
- UN1040 - Ethylene oxide and UN1040 – Ethylene oxide with nitrogen
- UN1050 - Hydrogen chloride, anhydrous and UN2186 - Hydrogen chloride, refrigerated liquid
- UN1052 - Hydrogen fluoride, anhydrous
- UN1079 - Sulfur dioxide/Sulphur dioxide

The materials are presented in numerical order of ID number and provide Initial Isolation and Protective Action Distances **FOR LARGE SPILLS** (more than 208 liters or 55 US gallons) involving different container types (therefore different volume capacities, see below) for day time and night time situations and different wind speeds.

- Rail tank car: 80 000 kg (176 370 lbs.)
- Highway tank truck or trailer: 20 000 – 25 000 kg (44 092 – 55 116 lbs.)
- Agricultural nurse tank: 3785 L (1000 gallons)
- Small cylinder: 72 L (19 gallons)
- Ton cylinder: 757 - 1135 L (200 - 300 gallons)

### Estimating Wind Speed from Environmental Clues

mph	km/h	Wind Description	Specifications
< 6	< 10	Low wind	Wind felt on face; leaves rustle; ordinary vane moved by wind
6 - 12	10 - 20	Moderate wind	Raises dust, loose paper; small branches are moved
> 12	> 20	High wind	Large branches in motion; whistling heard in telephone wires; umbrellas used with difficulty

(Data taken from the Beaufort Wind Scale has been reworked in order to create 3 categories of wind speed: Low, Moderate and High)

**TABLE 3 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES FOR LARGE SPILLS FOR DIFFERENT QUANTITIES OF SIX COMMON THI (PIH IN THE US) GASES**

	First ISOLATE in all Directions	Then PROTECT persons Downwind during					
		DAY			NIGHT		
		Low wind (< 6 mph = < 10 km/h)	Moderate wind (6-12 mph = 10 - 20 km/h)	High wind (> 12 mph = > 20 km/h)	Low wind < 10 km/h)	Moderate wind (6-12 mph = 10 - 20 km/h)	High wind (> 12 mph = > 20 km/h)
Meters (Feet)	Kilometers (Miles)	Kilometers (Miles)	Kilometers (Miles)	Kilometers (Miles)	Kilometers (Miles)	Kilometers (Miles)	Kilometers (Miles)
<b>TRANSPORT CONTAINER</b>							
Rail tank car	300 (1000)	1.6 (11.0)	1.2 (0.8)	1.0 (0.6)	4.1 (2.6)	2.1 (1.3)	1.3 (0.8)
Highway tank truck or trailer	150 (500)	0.8 (0.5)	0.5 (0.3)	0.4 (0.3)	1.8 (1.1)	0.7 (0.4)	0.6 (0.4)
Agricultural nurse tank	60 (200)	0.5 (0.3)	0.3 (0.2)	0.3 (0.2)	1.4 (0.9)	0.3 (0.2)	0.3 (0.2)
Multiple small cylinders	30 (100)	0.3 (0.2)	0.2 (0.1)	0.1 (0.1)	0.7 (0.5)	0.3 (0.2)	0.2 (0.1)
<b>TRANSPORT CONTAINER</b>							
Rail tank car	1000 (3000)	9.6 (6.0)	6.3 (3.9)	5.1 (3.2)	11.0+ (7.0+)	8.9 (5.6)	6.5 (4.1)
Highway tank truck or trailer	600 (2000)	5.6 (3.5)	3.3 (2.1)	2.5 (1.6)	6.4 (4.0)	4.7 (2.9)	3.8 (2.4)
Multiple ton cylinders	300 (1000)	1.9 (1.2)	1.3 (0.8)	1.0 (0.6)	3.5 (2.2)	2.3 (1.4)	1.3 (0.8)
Multiple small cylinders or single ton cylinder	150 (500)	1.3 (0.9)	0.7 (0.5)	0.5 (0.3)	2.4 (1.5)	1.2 (0.8)	0.6 (0.4)
<b>UN1005 Ammonia, anhydrous / Anhydrous ammonia: Large Spills</b>							
Rail tank car	300 (1000)	1.6 (11.0)	1.2 (0.8)	1.0 (0.6)	4.1 (2.6)	2.1 (1.3)	1.3 (0.8)
Highway tank truck or trailer	150 (500)	0.8 (0.5)	0.5 (0.3)	0.4 (0.3)	1.8 (1.1)	0.7 (0.4)	0.6 (0.4)
Agricultural nurse tank	60 (200)	0.5 (0.3)	0.3 (0.2)	0.3 (0.2)	1.4 (0.9)	0.3 (0.2)	0.3 (0.2)
Multiple small cylinders	30 (100)	0.3 (0.2)	0.2 (0.1)	0.1 (0.1)	0.7 (0.5)	0.3 (0.2)	0.2 (0.1)
<b>UN1017 Chlorine: Large Spills</b>							
Rail tank car	1000 (3000)	9.6 (6.0)	6.3 (3.9)	5.1 (3.2)	11.0+ (7.0+)	8.9 (5.6)	6.5 (4.1)
Highway tank truck or trailer	600 (2000)	5.6 (3.5)	3.3 (2.1)	2.5 (1.6)	6.4 (4.0)	4.7 (2.9)	3.8 (2.4)
Multiple ton cylinders	300 (1000)	1.9 (1.2)	1.3 (0.8)	1.0 (0.6)	3.5 (2.2)	2.3 (1.4)	1.3 (0.8)
Multiple small cylinders or single ton cylinder	150 (500)	1.3 (0.9)	0.7 (0.5)	0.5 (0.3)	2.4 (1.5)	1.2 (0.8)	0.6 (0.4)

**TABLE 3**

"+" means distance can be larger in certain atmospheric conditions