2011	Magnesium phosphide **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	245 m	(800 ft)	2.3 km	(1.4 mi)	6.0 km	(3.7 mi)
2012	Potassium phosphide **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	155 m	(500 ft)	1.3 km	(0.8 mi)	4.0 km	(2.5 mi)
2013	Strontium phosphide **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	155 m	(500 ft)	1.3 km	(0.8 mi)	3.7 km	(2.3 mi)
2032 2032	Nitric acid, fuming Nitric acid, red fuming	95 m	(300 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)	400 m	(1300 ft)	1.3 km	(0.8 mi)	3.5 km	(2.2 mi)
2186	Hydrogen chloride, refrigerated liquid	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	185 m	(600 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
2188	Arsine	60 m	(200 ft)	0.5 km	(0.3 mi)	2.1 km	(1.3 mi)	335 m	(1100 ft)	3.2 km	(2.0 mi)	6.6 km	(4.1 mi)
2188	SA **(when used as a weapon)**	60 m	(200 ft)	0.8 km	(0.5 mi)	2.4 km	(1.5 mi)	400 m	(1300 ft)	4.0 km	(2.5 mi)	8.0 km	(5.0 mi)
2189	Dichlorosilane	30 m	(100 ft)	0.3 km	(0.2 mi)	1.0 km	(0.6 mi)	245 m	(800 ft)	2.4 km	(1.5 mi)	6.3 km	(3.9 mi)
2190 2190	Oxygen difluoride Oxygen difluoride, compressed	430 m	(1400 ft)	4.2 km	(2.6 mi)	8.4 km	(5.2 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
2191 2191	Sulfuryl fluoride Sulphuryl fluoride	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	0.8 km	(0.5 mi)	2.3 km	(1.4 mi)
2192	Germane	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	275 m	(900 ft)	2.7 km	(1.7 mi)	6.6 km	(4.1 mi)
2194	Selenium hexafluoride	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	245 m	(800 ft)	2.3 km	(1.4 mi)	6.0 km	(3.7 mi)
2195	Tellurium hexafluoride	60 m	(200 ft)	0.6 km	(0.4 mi)	2.3 km	(1.4 mi)	365 m	(1200 ft)	3.5 km	(2.2 mi)	7.6 km	(4.7 mi)
2196	Tungsten hexafluoride	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	155 m	(500 ft)	1.3 km	(0.8 mi)	3.7 km	(2.3 mi)
2197	Hydrogen iodide, anhydrous	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	95 m	(300 ft)	0.8 km	(0.5 mi)	2.6 km	(1.6 mi)
2198 2198	Phosphorus pentafluoride Phosphorus pentafluoride, compressed	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	3.5 km	(2.2 mi)
2199	Phosphine	95 m	(300 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	490 m	(1600 ft)	1.8 km	(1.1 mi)	5.5 km	(3.4 mi)
2202	Hydrogen selenide, anhydrous	185 m	(600 ft)	1.8 km	(1.1 mi)	5.6 km	(3.5 mi)	915 m	(3000 ft)	10.8 km	(6.7 mi)	11.0+ km	(7.0+ mi)
2204 2204	Carbonyl sulfide Carbonyl sulphide	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	215 m	(700 ft)	1.9 km	(1.2 mi)	5.6 km	(3.5 mi)

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

TABLE OF INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

ID No.	NAME OF MATERIAL	SMALL SPILLS (From a small package or small leak from a large package) First ISOLATE in all Directions Meters	(Feet)	Then PROTECT persons Downwind during- DAY Kilometers	(Miles)	NIGHT Kilometers	(Miles)	LARGE SPILLS (From a large package or from many small packages) First ISOLATE in all Directions Meters	(Feet)	Then PROTECT persons Downwind during- DAY Kilometers	(Miles)	NIGHT Kilometers	(Miles)
2232	Chloroacetaldehyde	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.6 km	(1.0 mi)
2232	2-Chloroethanal												
2334	Allylamine	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	95 m	(300 ft)	1.0 km	(0.6 mi)	2.4 km	(1.5 mi)
2337	Phenyl mercaptan	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.6 km	(0.4 mi)
2382	1,2-Dimethylhydrazine	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.1 km	(0.7 mi)
2382	Dimethylhydrazine, symmetrical												
2407	Isopropyl chloroformate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	0.8 km	(0.5 mi)	1.9 km	(1.2 mi)
2417	Carbonyl fluoride	30 m	(100 ft)	0.2 km	(0.1 mi)	1.1 km	(0.7 mi)	125 m	(400 ft)	1.0 km	(0.6 mi)	3.1 km	(1.9 mi)
2417	Carbonyl fluoride, compressed												
2418	Sulfur tetrafluoride	60 m	(200 ft)	0.5 km	(0.3 mi)	1.9 km	(1.2 mi)	305 m	(1000 ft)	2.9 km	(1.8 mi)	6.9 km	(4.3 mi)
2418	Sulphur tetrafluoride												
2420	Hexafluoroacetone	30 m	(100 ft)	0.3 km	(0.2 mi)	1.4 km	(0.9 mi)	365 m	(1200 ft)	3.7 km	(2.3 mi)	8.5 km	(5.3 mi)
2421	Nitrogen trioxide	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	155 m	(500 ft)	0.6 km	(0.4 mi)	2.1 km	(1.3 mi)
2438	Trimethylacetyl chloride	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.8 km	(0.5 mi)
2442	Trichloroacetyl chloride **(when spilled on land)**	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)	1.4 km	(0.9 mi)
2442	Trichloroacetyl chloride **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)
2474	Thiophosgene	60 m	(200 ft)	0.6 km	(0.4 mi)	1.8 km	(1.1 mi)	275 m	(900 ft)	2.6 km	(1.6 mi)	5.0 km	(3.1 mi)
2477	Methyl isothiocyanate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.1 km	(0.7 mi)
2480	Methyl isocyanate	95 m	(300 ft)	0.8 km	(0.5 mi)	2.7 km	(1.7 mi)	490 m	(1600 ft)	4.8 km	(3.0 mi)	9.8 km	(6.1 mi)
2481	Ethyl isocyanate	215 m	(700 ft)	1.9 km	(1.2 mi)	4.3 km	(2.7 mi)	915 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)

2482	n-Propyl isocyanate	125 m	(400 ft)	1.1 km	(0.7 mi)	2.4 km	(1.5 mi)	765 m	(2500 ft)	6.3 km	(3.9 mi)	10.6 km	(6.6 mi)
2483	Isopropyl isocyanate	185 m	(600 ft)	1.8 km	(1.1 mi)	3.9 km	(2.4 mi)	430 m	(1400 ft)	4.2 km	(2.6 mi)	7.4 km	(4.6 mi)
2484	tert-Butyl isocyanate	125 m	(400 ft)	1.0 km	(0.6 mi)	2.4 km	(1.5 mi)	550 m	(1800 ft)	5.3 km	(3.3 mi)	10.3 km	(6.4 mi)
2485	n-Butyl isocyanate	95 m	(300 ft)	0.8 km	(0.5 mi)	1.6 km	(1.0 mi)	335 m	(1100 ft)	3.1 km	(1.9 mi)	6.3 km	(3.9 mi)
2486	Isobutyl isocyanate	60 m	(200 ft)	0.6 km	(0.4 mi)	1.4 km	(0.9 mi)	155 m	(500 ft)	1.6 km	(1.0 mi)	3.2 km	(2.0 mi)
2487	Phenyl isocyanate	30 m	(100 ft)	0.3 km	(0.2 mi)	0.8 km	(0.5 mi)	155 m	(500 ft)	1.3 km	(0.8 mi)	2.6 km	(1.6 mi)
2488	Cyclohexyl isocyanate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	0.8 km	(0.5 mi)	1.4 km	(0.9 mi)
2495	Iodine pentafluoride **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	125 m	(400 ft)	1.1 km	(0.7 mi)	3.1 km	(1.9 mi)
2521	Diketene, inhibited	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
2534	Methylchlorosilane	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	215 m	(700 ft)	2.1 km	(1.3 mi)	5.6 km	(3.5 mi)
2548	Chlorine pentafluoride	30 m	(100 ft)	0.3 km	(0.2 mi)	1.0 km	(0.6 mi)	365 m	(1200 ft)	3.7 km	(2.3 mi)	8.7 km	(5.4 mi)
2576	Phosphorus oxybromide, molten **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	95 m	(300 ft)	0.6 km	(0.4 mi)	1.9 km	(1.2 mi)
2600 2600 2600 2600	Carbon monoxide and Hydrogen mixture Carbon monoxide and Hydrogen mixture, compressed Hydrogen and Carbon monoxide mixture Hydrogen and Carbon monoxide mixture, compressed	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	125 m	(400 ft)	0.6 km	(0.4 mi)	1.8 km	(1.1 mi)
2605	Methoxymethyl isocyanate	60 m	(200 ft)	0.3 km	(0.2 mi)	0.8 km	(0.5 mi)	125 m	(400 ft)	1.3 km	(0.8 mi)	2.6 km	(1.6 mi)
2606	Methyl orthosilicate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.6 km	(0.4 mi)
2644	Methyl iodide	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.3 km	(0.2 mi)	1.0 km	(0.6 mi)
2646	Hexachlorocyclopentadiene	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)
2668	Chloroacetonitrile	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
2676	Stibine	30 m	(100 ft)	0.3 km	(0.2 mi)	1.6 km	(1.0 mi)	245 m	(800 ft)	2.3 km	(1.4 mi)	6.0 km	(3.7 mi)

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

TABLE OF WATER-REACTIVE MATERIALS WHICH PRODUCE TOXIC GASES

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

ID No.	Guide No.	Name of Material	TIH Gas(es) Produced	
1834	137	Sulfuryl chloride	HCl	SO_3
1834	137	Sulphuryl chloride	HCl	SO_3
1836	137	Thionyl chloride	HCl	SO_2
1838	137	Titanium tetrachloride	HCl	
1898	156	Acetyl iodide	HI	
1923	135	Calcium dithionite	H_2S	SO_2
1923	135	Calcium hydrosulfite	H_2S	SO_2
1923	135	Calcium hydrosulphite	H_2S	SO_2
1939	137	Phosphorus oxybromide	HBr	
1939	137	Phosphorus oxybromide, solid	HBr	
2004	135	Magnesium diamide	NH_3	
2011	139	Magnesium phosphide	PH_3	
2012	139	Potassium phosphide	PH_3	
2013	139	Strontium phosphide	PH_3	
2442	156	Trichloroacetyl chloride	HCl	
2495	144	Iodine pentafluoride	HF	
2576	137	Phosphorus oxybromide, molten	HBr	
2691	137	Phosphorus pentabromide	HBr	
2692	157	Boron tribromide	HBr	
2806	138	Lithium nitride	NH_3	
2977	166	Radioactive material, Uranium hexafluoride, fissile	HF	
2977	166	Uranium hexafluoride, fissile containing more than 1% Uranium-235	HF	
2978	166	Radioactive material, Uranium hexafluoride, non-fissile or fissile excepted	HF	

Chemical Symbols for TIH Gases:

Br_2	Bromine	HF	Hydrogen fluoride	PH_3	Phosphine
Cl_2	Chlorine	HI	Hydrogen iodide	SO_2	Sulfur dioxide
HBr	Hydrogen bromide	H_2S	Hydrogen sulfide	SO_2	Sulphur dioxide
HCl	Hydrogen chloride	H_2S	Hydrogen sulphide	SO_3	Sulfur trioxide
HCN	Hydrogen cyanide	NH_3	Ammonia	SO_3	Sulphur trioxide

Use this list only when material is spilled in water.