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
2004	135	Magnesium diamide	NH_3
2011	139	Magnesium phosphide	PH_3
2012	139	Potassium phosphide	PH_3
2013	139	Strontium phosphide	PH_3
2437	156	Methylphenyldichlorosilane	HCl
2495	144	Iodine pentafluoride	HF
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	HF
2978	166	Radioactive material, Uranium hexafluoride, non-fissile or fissile-excepted	HF
2978	166	Uranium hexafluoride	HF
2978	166	Uranium hexafluoride, fissile-excepted	HF
2978	166	Uranium hexafluoride, low specific activity	HF
2978	166	Uranium hexafluoride, non-fissile	HF
2985	155	Chlorosilanes, flammable, corrosive, n.o.s.	HCl
2985	155	Chlorosilanes, n.o.s.	HCl
2986	155	Chlorosilanes, corrosive, flammable, n.o.s.	HCl
2986	155	Chlorosilanes, n.o.s.	HCl
2987	156	Chlorosilanes, corrosive, n.o.s.	HCl
2987	156	Chlorosilanes, n.o.s.	HCl

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

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		Then PROTECT persons Downwind during- DAY		NIGHT		LARGE SPILLS (From a large package or from many small packages) First ISOLATE in all Directions		Then PROTECT persons Downwind during- DAY		NIGHT	
		Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
2204 2204	Carbonyl sulfide Carbonyl sulphide	30 m	(100 ft)	0.1 km	(0.1 mi)	0.6 km	(0.4 mi)	300 m	(1000 ft)	3.0 km	(1.9 mi)	8.1 km	(5.0 mi)
2232 2232	Chloroacetaldehyde 2-Chloroethanal	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	90 m	(300 ft)	0.8 km	(0.5 mi)	1.6 km	(1.0 mi)
2334	Allylamine	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	120 m	(400 ft)	1.1 km	(0.7 mi)	2.5 km	(1.5 mi)
2337	Phenyl mercaptan	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	60 m	(200 ft)	0.4 km	(0.2 mi)	0.6 km	(0.4 mi)
2382 2382	1,2-Dimethylhydrazine Dimethylhydrazine, symmetrical	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.2 km	(0.8 mi)
2407	Isopropyl chloroformate	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	90 m	(300 ft)	0.7 km	(0.5 mi)	1.5 km	(0.9 mi)
2417 2417	Carbonyl fluoride Carbonyl fluoride, compressed	30 m	(100 ft)	0.2 km	(0.1 mi)	1.1 km	(0.7 mi)	90 m	(300 ft)	1.0 km	(0.6 mi)	3.6 km	(2.3 mi)
2418 2418	Sulfur tetrafluoride Sulphur tetrafluoride	60 m	(200 ft)	0.7 km	(0.4 mi)	3.2 km	(2.0 mi)	500 m	(1600 ft)	4.7 km	(2.9 mi)	10.6 km	(6.6 mi)
2420	Hexafluoroacetone	30 m	(100 ft)	0.3 km	(0.2 mi)	1.3 km	(0.8 mi)	800 m	(2500 ft)	7.2 km	(4.5 mi)	11.0+ km	(7.0+ mi)
2421	Nitrogen trioxide	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	60 m	(200 ft)	0.4 km	(0.3 mi)	1.9 km	(1.2 mi)
2437	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)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)
2438	Trimethylacetyl chloride	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)
2442	Trichloroacetyl chloride	30 m	(100 ft)	0.2 km	(0.2 mi)	0.8 km	(0.5 mi)	120 m	(400 ft)	1.2 km	(0.8 mi)	2.2 km	(1.4 mi)
2474	Thiophosgene	90 m	(300 ft)	0.8 km	(0.5 mi)	2.4 km	(1.5 mi)	360 m	(1200 ft)	3.6 km	(2.3 mi)	6.8 km	(4.2 mi)
2477	Methyl isothiocyanate	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)	1.0 km	(0.7 mi)
2480	Methyl isocyanate	60 m	(200 ft)	0.5 km	(0.3 mi)	1.9 km	(1.2 mi)	600 m	(1800 ft)	5.4 km	(3.3 mi)	11.0+ km	(7.0+ mi)

2481	Ethyl isocyanate	60 m	(200 ft)	0.6 km	(0.4 mi)	2.1 km	(1.3 mi)	800 m	(2500 ft)	6.2 km	(3.9 mi)	11.0+ km	(7.0+ mi)
2482	n-Propyl isocyanate	120 m	(400 ft)	1.0 km	(0.7 mi)	2.5 km	(1.6 mi)	1000 m	(3000 ft)	9.0 km	(5.6 mi)	11.0+ km	(7.0+ mi)
2483	Isopropyl isocyanate	120 m	(400 ft)	1.1 km	(0.7 mi)	2.8 km	(1.8 mi)	1000 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
2484	tert-Butyl isocyanate	90 m	(300 ft)	1.0 km	(0.6 mi)	2.4 km	(1.5 mi)	1000 m	(3000 ft)	8.4 km	(5.2 mi)	11.0+ km	(7.0+ mi)
2485	n-Butyl isocyanate	90 m	(300 ft)	0.7 km	(0.5 mi)	1.6 km	(1.0 mi)	500 m	(1600 ft)	4.7 km	(2.9 mi)	8.0 km	(5.0 mi)
2486	Isobutyl isocyanate	90 m	(300 ft)	0.7 km	(0.5 mi)	1.6 km	(1.0 mi)	500 m	(1600 ft)	4.7 km	(3.0 mi)	7.8 km	(4.8 mi)
2487	Phenyl isocyanate	30 m	(100 ft)	0.4 km	(0.2 mi)	0.5 km	(0.3 mi)	180 m	(600 ft)	1.6 km	(1.0 mi)	2.9 km	(1.8 mi)
2488	Cyclohexyl isocyanate	30 m	(100 ft)	0.2 km	(0.2 mi)	0.3 km	(0.2 mi)	90 m	(300 ft)	0.9 km	(0.6 mi)	1.6 km	(1.0 mi)
2495	Iodine pentafluoride **(when spilled in water)**	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	210 m	(700 ft)	1.9 km	(1.2 mi)	5.7 km	(3.6 mi)
2521 2521	Diketene, inhibited Diketene, stabilized	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)	0.5 km	(0.3 mi)
2534	Methylchlorosilane	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	240 m	(800 ft)	2.4 km	(1.5 mi)	6.4 km	(4.0 mi)
2548	Chlorine pentafluoride	30 m	(100 ft)	0.3 km	(0.2 mi)	1.7 km	(1.1 mi)	240 m	(800 ft)	2.4 km	(1.5 mi)	7.4 km	(4.6 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)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	90 m	(300 ft)	0.7 km	(0.4 mi)	2.4 km	(1.5 mi)
2605	Methoxymethyl isocyanate	60 m	(200 ft)	0.4 km	(0.2 mi)	0.6 km	(0.4 mi)	180 m	(600 ft)	1.6 km	(1.0 mi)	2.6 km	(1.6 mi)
2606	Methyl orthosilicate	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	(0.4 mi)
2644	Methyl iodide	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)	0.8 km	(0.5 mi)
2646	Hexachlorocyclopentadiene	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)	0.5 km	(0.3 mi)
2668	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)	0.5 km	(0.3 mi)