

3308	Liquefied gas, poisonous, corrosive, n.o.s.	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)
3308	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)						
3308	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	430 m (1400 ft)	4.0 km (2.5 mi)	9.8 km (6.1 mi)
3308	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	185 m (600 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)
3308	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)	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)
3308	Liquefied gas, toxic, corrosive, n.o.s.	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)
3308	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)						
3308	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	430 m (1400 ft)	4.0 km (2.5 mi)	9.8 km (6.1 mi)
3308	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	185 m (600 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)
3308	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)	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)
3309	Liquefied gas, poisonous, flammable, corrosive, n.o.s.	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)
3309	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)						
3309	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	430 m (1400 ft)	4.0 km (2.5 mi)	9.8 km (6.1 mi)
3309	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	185 m (600 ft)	3.1 km (1.9 mi)	7.2 km (4.5 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)				LARGE SPILLS (From a large package or from many small packages)			
		First ISOLATE in all Directions		Then PROTECT persons Downwind during-		First ISOLATE in all Directions		Then PROTECT persons Downwind during-	
		Meters (Feet)	Kilometers (Miles)	DAY Kilometers (Miles)	NIGHT Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	DAY Kilometers (Miles)	NIGHT Kilometers (Miles)
3309	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	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)	
3309	Liquefied gas, toxic, flammable, corrosive, n.o.s.	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)	
3309	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)								
3309	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)		430 m (1400 ft)	4.0 km (2.5 mi)	9.8 km (6.1 mi)	
3309	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)		185 m (600 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)	
3309	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	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)	
3310	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s.	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)	
3310	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)								
3310	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)		335 m (1100 ft)	3.4 km (2.1 mi)	7.7 km (4.8 mi)	
3310	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)		185 m (600 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)	

3310	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	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)
3310	Liquefied gas, toxic, oxidizing, corrosive, n.o.s.	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)
3310	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)						
3310	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	335 m (1100 ft)	3.4 km (2.1 mi)	7.7 km (4.8 mi)
3310	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	185 m (600 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)
3310	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	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)
3318	Ammonia solution, with more than 50% Ammonia	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)	1.1 km (0.7 mi)
3355	Insecticide gas, poisonous, flammable, n.o.s	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)
3355	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)						
3355	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)	430 m (1400 ft)	4.0 km (2.5 mi)	9.8 km (6.1 mi)
3355	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)	215 m (700 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)
3355	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	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)

"+" 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)				LARGE SPILLS (From a large package or from many small packages)			
		First ISOLATE in all Directions		Then PROTECT persons Downwind during-		First ISOLATE in all Directions		Then PROTECT persons Downwind during-	
		Meters (Feet)	Kilometers (Miles)	DAY Kilometers (Miles)	NIGHT Kilometers (Miles)	Meters (Feet)	Kilometers (Miles)	NIGHT Kilometers (Miles)	
3355	Insecticide gas, toxic, flammable, n.o.s	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)	
3355	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)								
3355	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	60 m (200 ft)	0.5 km (0.3 mi)	1.6 km (1.0 mi)		430 m (1400 ft)	4.0 km (2.5 mi)	9.8 km (6.1 mi)	
3355	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m (100 ft)	0.3 km (0.2 mi)	1.3 km (0.8 mi)		215 m (700 ft)	3.1 km (1.9 mi)	7.2 km (4.5 mi)	
3355	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	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)	
9191	Chlorine dioxide, hydrate, frozen <i>(when spilled in water)</i>	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)	0.6 km (0.4 mi)	
9192	Fluorine, refrigerated liquid (cryogenic liquid)	30 m (100 ft)	0.2 km (0.1 mi)	0.5 km (0.3 mi)		185 m (600 ft)	1.4 km (0.9 mi)	4.0 km (2.5 mi)	
9202	Carbon monoxide, refrigerated liquid (cryogenic liquid)	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)	
9206	Methyl phosphonic dichloride	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)	
9263	Chloropivaloylchloride	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)	
9264	3,5-Dichloro-2,4,6-trifluoropyridine	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)	
9269	Trimethoxysilane	30 m (100 ft)	0.3 km (0.2 mi)	1.0 km (0.6 mi)		215 m (700 ft)	2.1 km (1.3 mi)	4.2 km (2.6 mi)	

## 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
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
2988	139	Chlorosilanes, n.o.s.	HCl
2988	139	Chlorosilanes, water-reactive, flammable, corrosive, n.o.s.	HCl
3048	157	Aluminum phosphide pesticide	PH <sub>3</sub>
3049	138	Metal alkyl halides, n.o.s.	HCl
3049	138	Metal alkyl halides, water-reactive, n.o.s.	HCl
3049	138	Metal aryl halides, n.o.s.	HCl
3049	138	Metal aryl halides, water-reactive, n.o.s.	HCl
3052	135	Aluminum alkyl halides	HCl
9191	143	Chlorine dioxide, hydrate, frozen	Cl <sub>2</sub>

### Chemical Symbols for TIH Gases:

Br <sub>2</sub>	Bromine	HF	Hydrogen fluoride	PH <sub>3</sub>	Phosphine
Cl <sub>2</sub>	Chlorine	HI	Hydrogen iodide	SO <sub>2</sub>	Sulfur dioxide
HBr	Hydrogen bromide	H <sub>2</sub> S	Hydrogen sulfide	SO <sub>2</sub>	Sulphur dioxide
HCl	Hydrogen chloride	H <sub>2</sub> S	Hydrogen sulphide	SO <sub>3</sub>	Sulfur trioxide
HCN	Hydrogen cyanide	NH <sub>3</sub>	Ammonia	SO <sub>3</sub>	Sulphur trioxide

**Use this list only when material is spilled in water.**

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