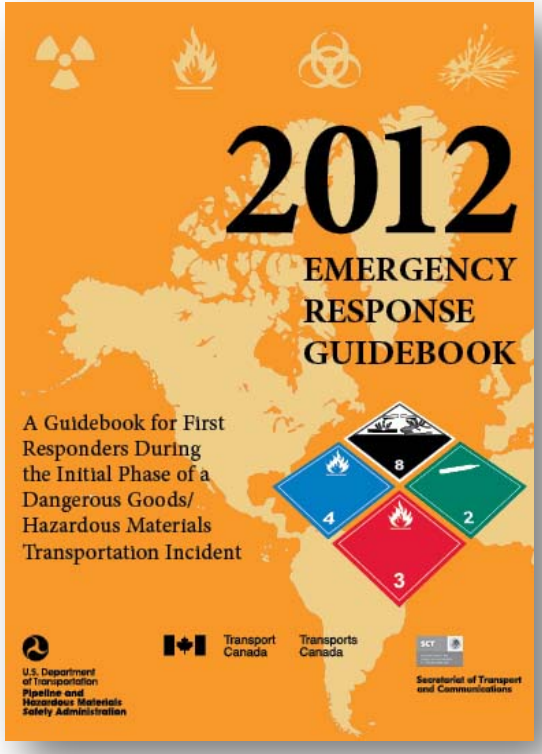
美国交通部

管道与危险品安全管理局

紧急应变指南(ERG)

2012 ERG

- 国际认可
- 四年出版
- 美国、加拿大、墨西哥联合协作



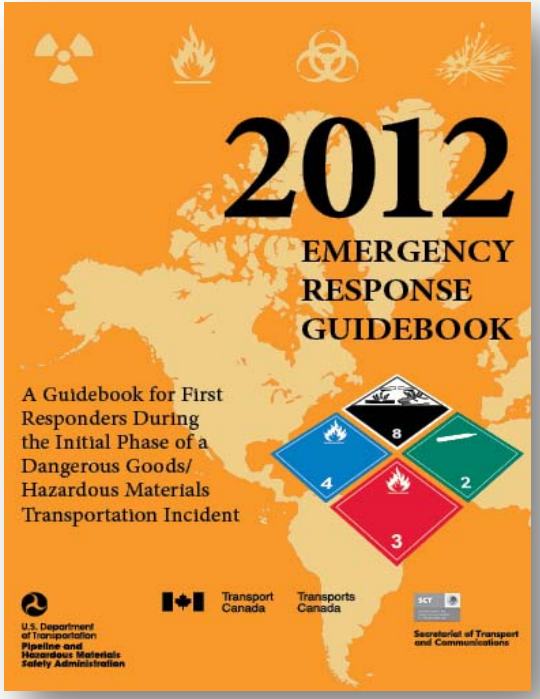
2012 ERG

紧急应变援助

识别危险品

保护自己和公众

ERG 设计



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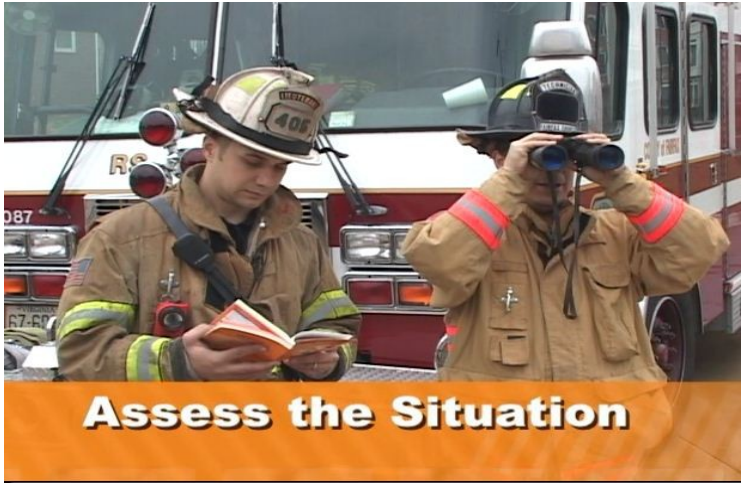
- 有边页面
  - 黄色
  - 蓝色
  - 橙色
  - 绿色

危险品事故



顽强抵抗 冲进去！

处理方法 从逆风处走进事故

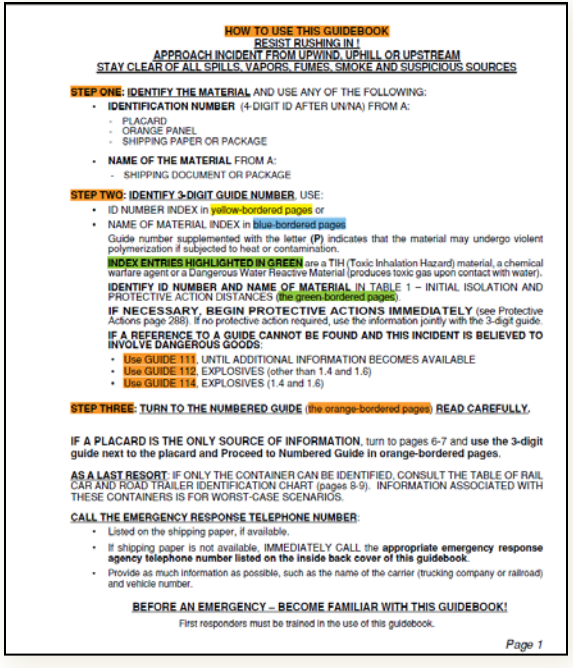
时刻保持 避开所有溢流、蒸汽、烟尘、烟气

如何使用 ECG

1) 识别材料

2) 查找 3 位数指南编号

3) 打开有编号的指南
仔细阅读



HOW TO USE THIS GUIDEBOOK
RESIST RUSHING IN !
APPROACH INCIDENT FROM UPWIND, UPHILL OR UPSTREAM
STAY CLEAR OF ALL SPILLS, VAPORS, FUMES, SMOKE AND SUSPICIOUS SOURCES

STEP ONE: IDENTIFY THE MATERIAL AND USE ANY OF THE FOLLOWING:

- **IDENTIFICATION NUMBER** (4-DIGIT ID AFTER UN/NA) FROM A:
  - PLACARD
  - ORANGE PANEL
  - SHIPPING PAPER OR PACKAGE
- **NAME OF THE MATERIAL** FROM A:
  - SHIPPING DOCUMENT OR PACKAGE

STEP TWO: IDENTIFY 3-DIGIT GUIDE NUMBER, USE:

- ID NUMBER INDEX in yellow-bordered pages or
- NAME OF MATERIAL INDEX in blue-bordered pages

Guide number supplemented with the letter **(P)** indicates that the material may undergo violent polymerization if subjected to heat or contamination.

INDEX ENTRIES HIGHLIGHTED IN GREEN are a **TIH** (Toxic Inhalation Hazard) material, a chemical warfare agent or a Dangerous Water Reactive Material (produces toxic gas upon contact with water).

IDENTIFY ID NUMBER AND NAME OF MATERIAL IN TABLE 1 – INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES (the green-bordered pages).

IF NECESSARY, BEGIN PROTECTIVE ACTIONS IMMEDIATELY (see Protective Actions page 288). If no protective action required, use the information jointly with the 3-digit guide.

IF A REFERENCE TO A GUIDE CANNOT BE FOUND AND THIS INCIDENT IS BELIEVED TO INVOLVE DANGEROUS GOODS:

- Use GUIDE 111, UNTIL ADDITIONAL INFORMATION BECOMES AVAILABLE
- Use GUIDE 112, EXPLOSIVES (other than 1.4 and 1.6)
- Use GUIDE 114, EXPLOSIVES (1.4 and 1.6)

STEP THREE: TURN TO THE NUMBERED GUIDE (the orange-bordered pages) **READ CAREFULLY.**

IF A PLACARD IS THE ONLY SOURCE OF INFORMATION, turn to pages 6-7 and **use the 3-digit guide next to the placard and Proceed to Numbered Guide in orange-bordered pages.**

AS A LAST RESORT: IF ONLY THE CONTAINER CAN BE IDENTIFIED, CONSULT THE TABLE OF RAIL CAR AND ROAD TRAILER IDENTIFICATION CHART (pages 8-9). INFORMATION ASSOCIATED WITH THESE CONTAINERS IS FOR WORST-CASE SCENARIOS.

CALL THE EMERGENCY RESPONSE TELEPHONE NUMBER:

- Listed on the shipping paper, if available.
- If shipping paper is not available, IMMEDIATELY CALL the **appropriate emergency response agency telephone number listed on the inside back cover of this guidebook.**
- Provide as much information as possible, such as the name of the carrier (trucking company or railroad) and vehicle number.

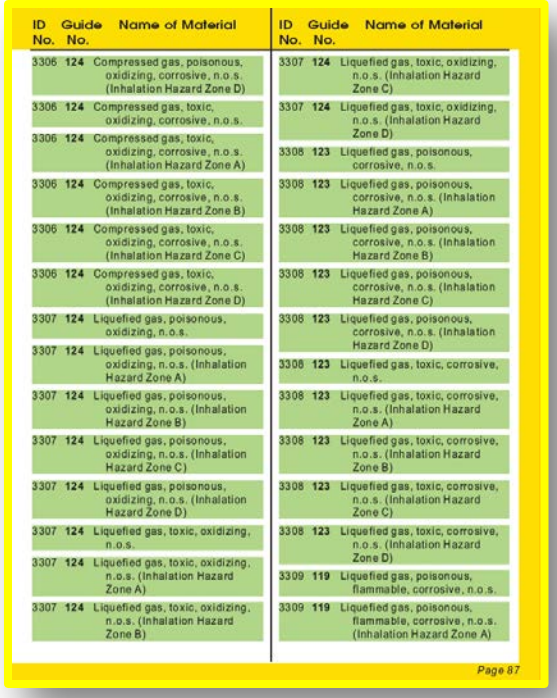
BEFORE AN EMERGENCY – BECOME FAMILIAR WITH THIS GUIDEBOOK!

First responders must be trained in the use of this guidebook.

Page 1

黄色边页面

- 4 位数 UN ID 编号
- 按号码顺序载列
- 指南页码 适当运输名称



ID No.	Guide No.	Name of Material
3306	124	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)
3306	124	Compressed gas, toxic, oxidizing, corrosive, n.o.s.
3306	124	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)
3306	124	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)
3306	124	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)
3306	124	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)
3307	124	Liquefied gas, poisonous, oxidizing, n.o.s.
3307	124	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3307	124	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)
3307	124	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)
3307	124	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)
3307	124	Liquefied gas, toxic, oxidizing, n.o.s.
3307	124	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3307	124	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)
3307	124	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)
3307	124	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)
3308	123	Liquefied gas, poisonous, corrosive, n.o.s.
3308	123	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)
3308	123	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)
3308	123	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)
3308	123	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)
3308	123	Liquefied gas, toxic, corrosive, n.o.s.
3308	123	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)
3308	123	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)
3308	123	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)
3308	123	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)
3309	119	Liquefied gas, poisonous, flammable, corrosive, n.o.s.
3309	119	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)

ID No. Guide No. Name of Material
ID No. Guide No. Name of Material

蓝色边页面

- 适当运输名称
- 按字母顺序载列
- 指南页码 UN ID 编号

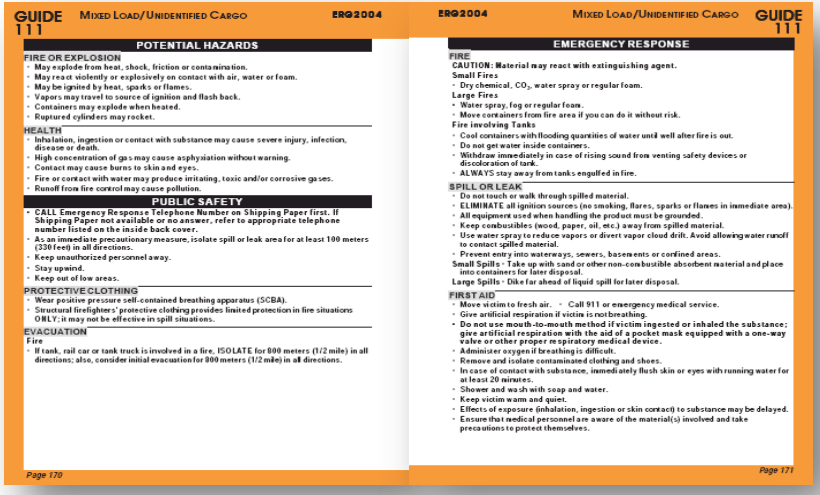
Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone C)	123	1955	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)	123	3304
Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone D)	123	1955	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)	123	3304
Compressed gas, poisonous, oxidizing, corrosive, n.o.s.	124	3306	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)	123	3304
Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	124	3306	Compressed gas, toxic, flammable, corrosive, n.o.s.	119	3305
Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	124	3306	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	119	3305
Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	124	3306	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	119	3305
Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	124	3306	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	119	3305
Compressed gas, poisonous, oxidizing, n.o.s.	124	3303	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	119	3305
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)	124	3303	Compressed gas, toxic, flammable, n.o.s.	119	1953
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)	124	3303	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	119	1953
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)	124	3303	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	119	1953
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)	124	3303	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	119	1953
Compressed gas, toxic, corrosive, n.o.s.	123	3304	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	119	1953
Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)	123	3304	Compressed gas, toxic, n.o.s.	123	1955

Page 112

橙色边页面

- 按章节组织的指引：

  1. 潜在危险
  2. 公共安全
  3. 紧急应变



GUIDE 111 MIXED LOAD/UNIDENTIFIED CARGO ERG2004

POTENTIAL HAZARDS

FIRE OR EXPLOSION
- May explode from heat, shock, friction or contamination.
- May react violently or explosively on contact with air, water or foam.
- May be ignited by heat, sparks or flames.
- Vapors may travel to source of ignition and flash back.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH
- Inhalation, ingestion or contact with substance may cause severe injury, infection, disease or death.
- High concentration of gas may cause asphyxiation without warning.
- Contact may cause burns to skin and eyes.
- Fire or contact with water may produce irritating, toxic and/or corrosive gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY
- CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING
- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations.

EVACUATION

Fire
- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

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ERG2004 MIXED LOAD/UNIDENTIFIED CARGO GUIDE 111

EMERGENCY RESPONSE

FIRE

CAUTION: Material may react with extinguishing agent.

Small Fires
- Dry chemical, CO_2, water spray or regular foam.

Large Fires
- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks
- Cool containers with flooding quantities of water until well after fire is out.
- Do not get water inside containers.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK
- Do not touch or walk through spilled material.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spills - Take up with sand or other non-combustible absorbent material and place into containers for later disposal.

Large Spills - Dike far ahead of liquid spill for later disposal.

FIRST AID
- Move victim to fresh air. - Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Shower and wash with soap and water.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Page 171

左边 *右边*

安全 *应变*

绿色边页面

- 表 1—初期隔离和保护行动距离
- 表 2—水反应物质
  产生有毒气体
- 表 3 —六种常见的有毒吸入危险气体

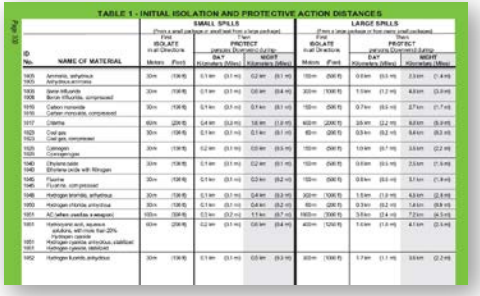


TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

ID No.	NAME OF MATERIAL	SMALL SPILLS (Tank or small package or small leak from a large package)				LARGE SPILLS (Tank or large package or from many small packages)			
		First ISOLATE in all Directions	PROTECT (people Downwind) DAY		NIGHT	First ISOLATE in all Directions	PROTECT (people Downwind) DAY		NIGHT
		Meters	Feet	Kilometers (Miles)	Kilometers (Miles)	Meters	Feet	Kilometers (Miles)	Kilometers (Miles)
1005	Ammonia, anhydrous	30m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150m	(500 ft)
1005	Anhydrous ammonia								
1008	Boron trifluoride	30m	(100 ft)	0.1 km	(0.1 mi)	0.6 km	(0.4 mi)	300m	(1000 ft)
1008	Boron trifluoride, compressed								
1010	Carbon monoxide	30m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	150m	(500 ft)
1016	Carbon monoxide, compressed								
1017	Chlorine	60m	(200 ft)	0.4 km	(0.3 mi)	1.6 km	(1.0 mi)	600m	(2000 ft)
1023	Coal gas	30m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	60m	(200 ft)
1023	Coal gas, compressed								
1026	Cyanogen	30m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	150m	(500 ft)
1026	Cyanogen, compressed								
1040	Ethylene oxide	30m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150m	(500 ft)
1040	Ethylene oxide with Nitrogen								
1045	Fluorine	30m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.2 mi)	150m	(500 ft)
1045	Fluorine, compressed								
1048	Hydrogen bromide, anhydrous	30m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	300m	(1000 ft)
1050	Hydrogen chloride, anhydrous	30m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	60m	(200 ft)
1051	AC when used as a weapon	100m	(300 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	1900m	(1900 ft)
1051	Hydrocyanic acid, aqueous solutions, with more than 20% Hydrogen cyanide	30m	(200 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	400m	(1200 ft)
1051	Hydrogen cyanide, anhydrous, stabilized								
1051	Hydrogen cyanide, stabilized								
1052	Hydrogen fluoride, anhydrous	30m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	300m	(1000 ft)

LARGE SPILLS (Tank or large package or from many small packages)			
First ISOLATE in all Directions	PROTECT (people Downwind) DAY		NIGHT
Meters	Feet	Kilometers (Miles)	Kilometers (Miles)
150m	(500 ft)	0.6 km	(0.3 mi)
300m	(1000 ft)	1.0 km	(1.2 mi)
150m	(500 ft)	0.7 km	(0.5 mi)
600m	(2000 ft)	3.5 km	(2.2 mi)
60m	(200 ft)	0.3 km	(0.2 mi)
150m	(500 ft)	1.0 km	(0.7 mi)
150m	(500 ft)	0.8 km	(0.5 mi)
150m	(500 ft)	0.8 km	(0.5 mi)
300m	(1000 ft)	1.5 km	(1.0 mi)
60m	(200 ft)	0.3 km	(0.2 mi)
1900m	(1900 ft)	3.5 km	(2.4 mi)
400m	(1200 ft)	1.6 km	(1.0 mi)
300m	(1000 ft)	1.7 km	(1.1 mi)

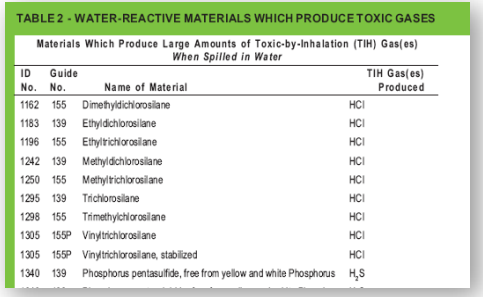
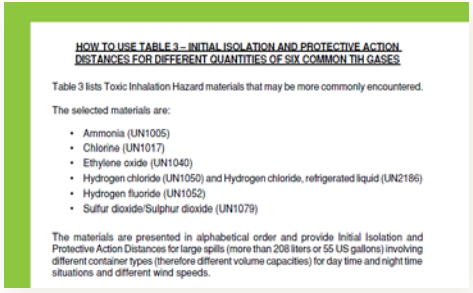


TABLE 2 - WATER-REACTIVE MATERIALS WHICH PRODUCE TOXIC GASES

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
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
1305	155P	Vinyltrichlorosilane, stabilized	HCl
1340	139	Phosphorus pentasulfide, free from yellow and white Phosphorus	H_2S



HOW TO USE TABLE 3 – INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES FOR DIFFERENT QUANTITIES OF SIX COMMON TIH GASES

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

The selected materials are:

- Ammonia (UN1005)
- Chlorine (UN1017)
- Ethylene oxide (UN1040)
- Hydrogen chloride (UN1050) and Hydrogen chloride, refrigerated liquid (UN2186)
- Hydrogen fluoride (UN1052)
- Sulfur dioxide/Sulphur dioxide (UN1079)

The materials are presented in alphabetical order 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) for day time and night time situations and different wind speeds.

何处查找更多信息.....

http://hazmat.dot.gov