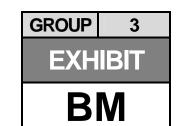


## NATIONAL TRANSPORTATION SAFETY BOARD - Public Hearing



Conrail Derailment in Paulsboro, NJ with Vinyl Chloride Release

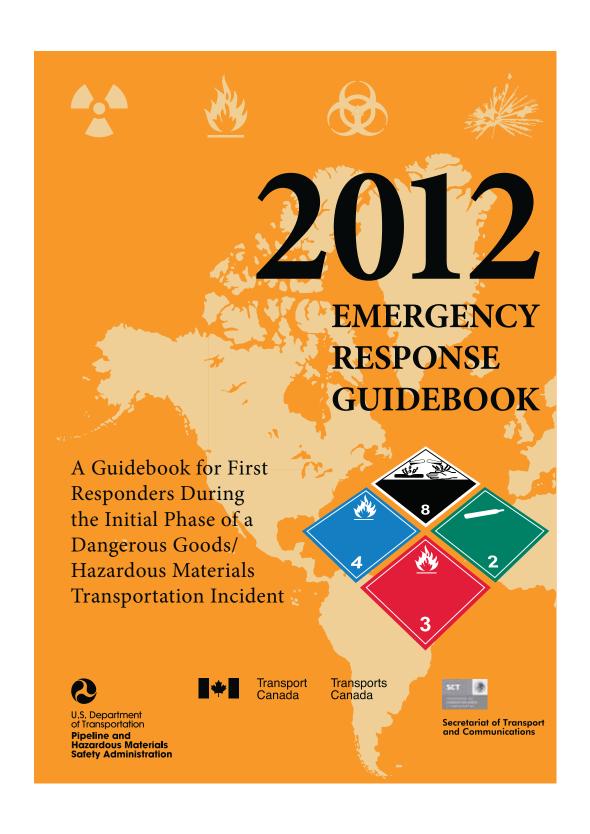
Agency / Organization

Pipeline and Hazardous Materials Safety Admin.

Title

# 2012 PHMSA Emergency Response Guide (ERG) - Vinyl Chloride

Docket ID: DCA13MR002



ID No.	Guic No.	le Name of Material		Guid No.	le Name of Material
1066	121	Nitrogen, compressed	1079	125	Sulfur dioxide
1067	124	Dinitrogen tetroxide	1079	125	Sulphur dioxide
1067	124	Nitrogen dioxide	1080	126	Sulfur hexafluoride
1069	125	Nitrosyl chloride	1080	126	Sulphur hexafluoride
1070	122	Nitrous oxide	1081	116P	Tetrafluoroethylene, stabilized
1070	122	Nitrous oxide, compressed	1082	119P	Trifluorochloroethylene, stabilized
1071	119	Oil gas	1000	118	
1071	119	Oil gas, compressed			Trimethylamine, anhydrous Vinyl bromide, stabilized
1072	122	Oxygen			Vinyl chloride, stabilized
1072	122	Oxygen, compressed			Vinyl methyl ether, stabilized
1073	122	Oxygen, refrigerated liquid (cryogenic liquid)	1088		Acetal
1075	115	Butane	1089	129	Acetaldehyde
1075	115	Butane mixture	1090	127	Acetone
1075	115	Butylene	1091	127	Acetone oils
1075	115	Isobutane	1092	131P	Acrolein, stabilized
1075	115	Isobutane mixture	1093	131P	Acrylonitrile, stabilized
1075	115	Isobutylene	1098	131	Allyl alcohol
1075	115	Liquefied petroleum gas	1099	131	Allyl bromide
1075	115	LPG	1100	131	Allyl chloride
1075	115	Petroleum gases, liquefied	1104	129	Amyl acetates
1075	115	Propane	1105	129	Amyl alcohols
1075	115	Propane mixture	1105	129	Pentanols
1075	115	Propylene	1106	132	Amylamines
1076	125	CG	1107	129	Amyl chloride
1076	125	Diphosgene	1108	128	n-Amylene
1076	125	DP	1108	128	1-Pentene
1076	125	Phosgene	1109	129	Amyl formates
1077	115	Propylene	1110	127	n-Amyl methyl ketone
1078	126	Dispersant gas, n.o.s.	1110	127	Amyl methyl ketone
1078	126	Refrigerant gas, n.o.s.	1110	127	Methyl amyl ketone
					Paga 22

## POTENTIAL HAZARDS

## FIRE OR EXPLOSION

- EXTREMELY FLAMMABLE.
- Will be easily ignited by heat, sparks or flames.
- · Will form explosive mixtures with air.
- · Silane will ignite spontaneously in air.
- Those substances designated with a (P) may polymerize explosively when heated or involved in a fire.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- · Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.
- Containers may explode when heated.
- · Ruptured cylinders may rocket.

## HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Some may be toxic if inhaled at high concentrations.
- · Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating and/or toxic gases.

## **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.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.

## PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

## **EVACUATION**

## Large Spill

Consider initial downwind evacuation for at least 800 meters (1/2 mile).

#### Fire

• If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

## **EMERGENCY RESPONSE**

## FIRE

DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

#### **Small Fire**

Dry chemical or CO<sub>2</sub>.

## **Large Fire**

- Water spray or fog.
- · Move containers from fire area if you can do it without risk.

## Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

## SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Stop leak if you can do it without risk.
- Do not touch or walk through spilled material.
- Do not direct water at spill or source of leak.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- · Prevent entry into waterways, sewers, basements or confined areas.
- Isolate area until gas has dispersed.

## FIRST AID

- · Move victim to fresh air.
- Call 911 or emergency medical service.
- · Give artificial respiration if victim is not breathing.
- · Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.