



2012

EMERGENCY RESPONSE GUIDEBOOK

A Guidebook for First
Responders During
the Initial Phase of a
Dangerous Goods/
Hazardous Materials
Transportation Incident



U.S. Department
of Transportation
**Pipeline and
Hazardous Materials
Safety Administration**



Transport
Canada

Transports
Canada



Secretariat of Transport
and Communications

ID No.	Guide No.	Name of Material	ID No.	Guide No.	Name of Material
1223	128	Kerosene	1262	128	Isooctane
1224	127	Ketones, liquid, n.o.s.	1262	128	Octanes
1228	131	Mercaptan mixture, liquid, flammable, poisonous, n.o.s.	1263	128	Paint (flammable)
1228	131	Mercaptan mixture, liquid, flammable, toxic, n.o.s.	1263	128	Paint related material (flammable)
1228	131	Mercaptans, liquid, flammable, poisonous, n.o.s.	1264	129	Paraldehyde
1228	131	Mercaptans, liquid, flammable, toxic, n.o.s.	1265	128	Isopentane
1229	129	Mesityl oxide	1265	128	n-Pentane
1230	131	Methanol	1265	128	Pentanes
1230	131	Methyl alcohol	1266	127	Perfumery products, with flammable solvents
1231	129	Methyl acetate	1267	128	Petroleum crude oil
1233	130	Methylamyl acetate	1268	128	Petroleum distillates, n.o.s.
1234	127	Methylal	1268	128	Petroleum products, n.o.s.
1235	132	Methylamine, aqueous solution	1270	128	Oil, petroleum
1237	129	Methyl butyrate	1270	128	Petroleum oil
1238	155	Methyl chloroformate	1272	129	Pine oil
1239	131	Methyl chloromethyl ether	1274	129	n-Propanol
1242	139	Methyldichlorosilane	1274	129	normal Propyl alcohol
1243	129	Methyl formate	1274	129	Propyl alcohol, normal
1244	131	Methylhydrazine	1275	129	Propionaldehyde
1245	127	Methyl isobutyl ketone	1276	129	n-Propyl acetate
1246	127P	Methyl isopropenyl ketone, stabilized	1277	132	Monopropylamine
1247	129P	Methyl methacrylate monomer, stabilized	1277	132	Propylamine
1248	129	Methyl propionate	1278	129	1-Chloropropane
1249	127	Methyl propyl ketone	1278	129	Propyl chloride
1250	155	Methyltrichlorosilane	1279	130	1,2-Dichloropropane
1251	131P	Methyl vinyl ketone, stabilized	1279	130	Dichloropropane
1259	131	Nickel carbonyl	1279	130	Propylene dichloride
1261	129	Nitromethane	1280	127P	Propylene oxide
			1281	129	Propyl formates
			1282	129	Pyridine
			1286	127	Rosin oil

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Perfluoro(ethyl vinyl ether)	115	3154	Petroleum distillates, n.o.s.	128	1268
Perfluoromethyl vinyl ether	115	3153	Petroleum gases, liquefied	115	1075
Perfluoro(methyl vinyl ether)	115	3153	Petroleum oil	128	1270
Perfumery products, with flammable solvents	127	1266	Petroleum products, n.o.s.	128	1268
Permanganates, inorganic, aqueous solution, n.o.s.	140	3214	Petroleum sour crude oil, flammable, toxic	131	3494
Permanganates, inorganic, n.o.s.	140	1482	Phenacyl bromide	153	2645
Peroxides, inorganic, n.o.s.	140	1483	Phenetidines	153	2311
Persulfates, inorganic, aqueous solution, n.o.s.	140	3216	Phenol, molten	153	2312
Persulfates, inorganic, n.o.s.	140	3215	Phenol, solid	153	1671
Persulphates, inorganic, aqueous solution, n.o.s.	140	3216	Phenol solution	153	2821
Persulphates, inorganic, n.o.s.	140	3215	Phenolates, liquid	154	2904
Pesticide, liquid, flammable, poisonous, n.o.s.	131	3021	Phenolates, solid	154	2905
Pesticide, liquid, flammable, toxic, n.o.s.	131	3021	Phenolsulfonic acid, liquid	153	1803
Pesticide, liquid, poisonous, flammable, n.o.s.	131	2903	Phenolsulphonic acid, liquid	153	1803
Pesticide, liquid, poisonous, n.o.s.	151	2902	Phenoxyacetic acid derivative pesticide, liquid, flammable, poisonous	131	3346
Pesticide, liquid, toxic, flammable, n.o.s.	131	2903	Phenoxyacetic acid derivative pesticide, liquid, flammable, toxic	131	3346
Pesticide, liquid, toxic, n.o.s.	151	2902	Phenoxyacetic acid derivative pesticide, liquid, poisonous	153	3348
Pesticide, solid, poisonous	151	2588	Phenoxyacetic acid derivative pesticide, liquid, poisonous, flammable	131	3347
Pesticide, solid, poisonous, n.o.s.	151	2588	Phenoxyacetic acid derivative pesticide, liquid, toxic	153	3348
Pesticide, solid, toxic, n.o.s.	151	2588	Phenoxyacetic acid derivative pesticide, liquid, toxic, flammable	131	3347
PETN mixture, desensitized, solid, n.o.s., with more than 10% but not more than 20% PETN	113	3344	Phenoxyacetic acid derivative pesticide, solid, poisonous	153	3345
Petrol	128	1203	Phenoxyacetic acid derivative pesticide, solid, toxic	153	3345
Petrol and ethanol mixture, with more than 10% ethanol	127	3475	Phenylacetonitrile, liquid	152	2470
Petroleum crude oil	128	1267	Phenylacetyl chloride	156	2577
			Phenylcarbylamine chloride	151	1672

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE:** Will be easily ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a (P) may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- Substance may be transported hot.
- For UN3166, if Lithium ion batteries are involved, also consult GUIDE 147.
- **If molten aluminum is involved, refer to GUIDE 169.**

HEALTH

- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire may produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control or dilution water 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 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

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 300 meters (1000 feet).

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.

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

CAUTION: For mixtures containing alcohol or polar solvent, alcohol-resistant foam may be more effective.

Small Fire

- Dry chemical, CO₂, water spray or regular foam.

Large Fire

- Water spray, fog or regular foam.
- **Do not use straight streams.**
- Move containers from fire area if you can do it without risk.

Fire Involving Tanks or Car/Trailer Loads

- 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.
- 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.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean non-sparking tools to collect absorbed material.

Large Spill

- Dike far ahead of liquid spill for later disposal.
- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

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 substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and 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.