

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Arsenic acid, liquid	154	1553	Articles containing flammable gas, n.o.s.	115	3537
Arsenic acid, solid	154	1554	Articles containing flammable liquid, n.o.s.	127	3540
Arsenical dust	152	1562	Articles containing flammable solid, n.o.s.	133	3541
Arsenical pesticide, liquid, flammable, poisonous	131	2760	Articles containing miscellaneous dangerous goods, n.o.s.	171	3548
Arsenical pesticide, liquid, flammable, toxic	131	2760	Articles containing non-flammable, non-toxic gas, n.o.s.	120	3538
Arsenical pesticide, liquid, poisonous	151	2994	Articles containing oxidizing substance, n.o.s.	140	3544
Arsenical pesticide, liquid, poisonous, flammable	131	2993	Articles containing organic peroxide, n.o.s.	145	3545
Arsenical pesticide, liquid, toxic	151	2994	Articles containing Polychlorinated biphenyls (PCB)	171	2315
Arsenical pesticide, liquid, toxic, flammable	131	2993	Articles containing toxic gas, n.o.s.	123	3539
Arsenical pesticide, solid, poisonous	151	2759	Articles containing toxic substance, n.o.s.	151	3546
Arsenical pesticide, solid, toxic	151	2759	Articles, pressurized, hydraulic (containing non-flammable gas)	126	3164
Arsenic bromide	151	1555	Articles, pressurized, pneumatic (containing non-flammable gas)	126	3164
Arsenic chloride	157	1560	Aryl sulfonic acids, liquid, with more than 5% free Sulfuric acid	153	2584
Arsenic compound, liquid, n.o.s.	152	1556	Aryl sulfonic acids, liquid, with not more than 5% free Sulfuric acid	153	2586
Arsenic compound, solid, n.o.s.	152	1557	Aryl sulfonic acids, solid, with more than 5% free Sulfuric acid	153	2583
Arsenic pentoxide	151	1559	Aryl sulfonic acids, solid, with not more than 5% free Sulfuric acid	153	2585
Arsenic trichloride	157	1560			
Arsenic trioxide	151	1561			
Arsine	119	2188			
Arsine, adsorbed	173	3522			
Articles containing a substance liable to spontaneous combustion, n.o.s.	135	3542			
Articles containing a substance which emits flammable gas in contact with water, n.o.s.	138	3543			
Articles containing corrosive substance, n.o.s.	154	3547			

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Aryl sulphonic acids, liquid, with more than 5% free Sulphuric acid	153	2584	Barium perchlorate, solid	141	1447
Aryl sulphonic acids, liquid, with not more than 5% free Sulphuric acid	153	2586	Barium perchlorate, solution	141	3406
Aryl sulphonic acids, solid, with more than 5% free Sulphuric acid	153	2583	Barium permanganate	141	1448
Aryl sulphonic acids, solid, with not more than 5% free Sulphuric acid	153	2585	Barium peroxide	141	1449
Asbestos	171	2212	Batteries, containing Sodium	138	3292
Asbestos, amphibole	171	2212	Batteries, dry, containing Potassium hydroxide solid	154	3028
Asbestos, blue	171	2212	Batteries, nickel-metal hydride	171	3496
Asbestos, brown	171	2212	Batteries, wet, filled with acid	154	2794
Asbestos, chrysotile	171	2590	Batteries, wet, filled with alkali	154	2795
Asbestos, white	171	2590	Batteries, wet, non-spillable	154	2800
Asphalt	130	1999	Battery fluid, acid	157	2796
Asphalt, cut back	130	1999	Battery fluid, alkali	154	2797
Aviation regulated liquid, n.o.s.	171	3334	Battery-powered equipment (wet battery)	154	3171
Aviation regulated solid, n.o.s.	171	3335	Battery-powered equipment (with lithium ion batteries)	147	3171
Azodicarbonamide	149	3242	Battery-powered equipment (with lithium metal batteries)	138	3171
Barium	138	1400	Battery-powered equipment (with sodium batteries)	138	3171
Barium alloys, pyrophoric	135	1854	Battery-powered vehicle (wet battery)	154	3171
Barium azide, wetted with not less than 50% water	113	1571	Battery-powered vehicle (with lithium ion batteries)	147	3171
Barium bromate	141	2719	Battery-powered vehicle (with sodium batteries)	138	3171
Barium chlorate, solid	141	1445	Benzaldehyde	171	1990
Barium chlorate, solution	141	3405	Benzene	130	1114
Barium compound, n.o.s.	154	1564	Benzene phosphorus dichloride	137	2798
Barium cyanide	157	1565	Benzene phosphorus thiodichloride	137	2799
Barium hypochlorite, with more than 22% available Chlorine	141	2741	Benzenesulfonyl chloride	156	2225
Barium nitrate	141	1446	Benzenesulphonyl chloride	156	2225
Barium oxide	157	1884	Benzidine	153	1885
			Benzonitrile	152	2224

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Benzoquinone	153	2587	Bipyridilium pesticide, solid, poisonous	151	2781
Benzotrichloride	156	2226	Bipyridilium pesticide, solid, toxic	151	2781
Benzotrifluoride	127	2338	Bisulfates, aqueous solution	154	2837
Benzoyl chloride	137	1736	Bisulfites, aqueous solution, n.o.s.	154	2693
Benzyl bromide	156	1737	Bisulphates, aqueous solution	154	2837
Benzyl chloride	156	1738	Bisulphites, aqueous solution, n.o.s.	154	2693
Benzyl chloroformate	137	1739	Blasting agent, n.o.s.	112	—
Benzyl dimethylamine	132	2619	Bleaching powder	140	2208
Benzylidene chloride	156	1886	Blue asbestos	171	2212
Benzyl iodide	156	2653	Bombs, smoke, non-explosive, with corrosive liquid, without initiating device	153	2028
Beryllium compound, n.o.s.	154	1566	Borate and Chlorate mixture	140	1458
Beryllium nitrate	141	2464	Borneol	133	1312
Beryllium powder	134	1567	Boron tribromide	157	2692
beta-Naphthylamine, solid	153	1650	Boron trichloride	125	1741
beta-Naphthylamine, solution	153	3411	Boron trifluoride	125	1008
Bhusa, wet, damp or contaminated with oil	133	1327	Boron trifluoride, adsorbed	173	3519
Bicyclo[2.2.1]hepta-2,5-diene, stabilized	128P	2251	Boron trifluoride, compressed	125	1008
Biological agents	158	—	Boron trifluoride, dihydrate	157	2851
Biological substance, category B	158	3373	Boron trifluoride acetic acid complex, liquid	157	1742
(Bio)Medical waste, n.o.s.	158	3291	Boron trifluoride acetic acid complex, solid	157	3419
Bipyridilium pesticide, liquid, flammable, poisonous	131	2782	Boron trifluoride diethyl etherate	132	2604
Bipyridilium pesticide, liquid, flammable, toxic	131	2782	Boron trifluoride dimethyl etherate	139	2965
Bipyridilium pesticide, liquid, poisonous	151	3016	Boron trifluoride propionic acid complex, liquid	157	1743
Bipyridilium pesticide, liquid, poisonous, flammable	131	3015	Boron trifluoride propionic acid complex, solid	157	3420
Bipyridilium pesticide, liquid, toxic	151	3016			
Bipyridilium pesticide, liquid, toxic, flammable	131	3015			

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Bromates, inorganic, aqueous solution, n.o.s.	140	3213	Bromotrifluoromethane	126	1009
Bromates, inorganic, n.o.s.	140	1450	Brown asbestos	171	2212
Bromine	154	1744	Brucine	152	1570
Bromine, solution	154	1744	Butadienes, stabilized	116P	1010
Bromine, solution (Inhalation Hazard Zone A)	154	1744	Butadienes and hydrocarbon mixture, stabilized	116P	1010
Bromine, solution (Inhalation Hazard Zone B)	154	1744	Butane	115	1011
Bromine chloride	124	2901	Butane	115	1075
Bromine pentafluoride	144	1745	Butanedione	127	2346
Bromine trifluoride	144	1746	Butanols	129	1120
Bromoacetic acid, solid	156	3425	Butyl acetates	129	1123
Bromoacetic acid, solution	156	1938	Butyl acid phosphate	153	1718
Bromoacetone	131	1569	Butyl acrylates, stabilized	129P	2348
Bromoacetyl bromide	156	2513	n-Butylamine	132	1125
Bromobenzene	130	2514	N-Butylaniline	153	2738
Bromobenzyl cyanides, liquid	159	1694	Butylbenzenes	128	2709
Bromobenzyl cyanides, solid	159	3449	n-Butyl bromide	130	1126
1-Bromobutane	130	1126	n-Butyl chloride	130	1127
2-Bromobutane	130	2339	n-Butyl chloroformate	155	2743
Bromochloromethane	160	1887	sec-Butyl chloroformate	155	2742
1-Bromo-3-chloropropane	159	2688	tert-Butylcyclohexyl chloroformate	156	2747
2-Bromoethyl ethyl ether	130	2340	Butylene	115	1012
Bromoform	159	2515	Butylene	115	1075
1-Bromo-3-methylbutane	130	2341	1,2-Butylene oxide, stabilized	127P	3022
Bromomethylpropanes	130	2342	Butyl ethers	128	1149
2-Bromo-2-nitropropane-1,3-diol	133	3241	n-Butyl formate	129	1128
2-Bromopentane	130	2343	tert-Butyl hypochlorite	135	3255
Bromopropanes	129	2344	N,n-Butylimidazole	152	2690
3-Bromopropyne	130	2345	n-Butyl isocyanate	155P	2485
Bromotrifluoroethylene	116	2419	tert-Butyl isocyanate	155	2484
			Butyl mercaptan	130	2347

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n-Butyl methacrylate, stabilized	130P	2227	Calcium arsenite and Calcium arsenate mixture, solid	151	1574
Butyl methyl ether	127	2350	Calcium carbide	138	1402
Butyl nitrites	129	2351	Calcium chlorate	140	1452
Butyl propionates	130	1914	Calcium chlorate, aqueous solution	140	2429
Butyltoluenes	152	2667	Calcium chlorite	140	1453
Butyltrichlorosilane	155	1747	Calcium cyanamide, with more than 0.1% Calcium carbide	138	1403
5-tert-Butyl-2,4,6-trinitro-m-xylene	149	2956	Calcium cyanide	157	1575
Butyl vinyl ether, stabilized	127P	2352	Calcium dithionite	135	1923
1,4-Butynediol	153	2716	Calcium hydride	138	1404
Butyraldehyde	129P	1129	Calcium hydrosulfite	135	1923
Butyraldoxime	129	2840	Calcium hydrosulphite	135	1923
Butyric acid	153	2820	Calcium hypochlorite, dry	140	1748
Butyric anhydride	156	2739	Calcium hypochlorite, dry, corrosive, with more than 39% available chlorine (8.8% available oxygen)	140	3485
Butyronitrile	131	2411	Calcium hypochlorite, hydrated, corrosive, with not less than 5.5% but not more than 16% water	140	3487
Butyryl chloride	132	2353	Calcium hypochlorite, hydrated, with not less than 5.5% but not more than 16% water	140	2880
Buzz	153	—	Calcium hypochlorite, hydrated mixture, corrosive, with not less than 5.5% but not more than 16% water	140	3487
BZ	153	—	Calcium hypochlorite, hydrated mixture, with not less than 5.5% but not more than 16% water	140	2880
CA	159	—	Calcium hypochlorite mixture, dry, corrosive, with more than 10% but not more than 39% available chlorine	140	3486
Cacodylic acid	151	1572			
Cadmium compound	154	2570			
Caesium	138	1407			
Caesium hydroxide	157	2682			
Caesium hydroxide, solution	154	2681			
Caesium nitrate	140	1451			
Calcium	138	1401			
Calcium, pyrophoric	135	1855			
Calcium alloys, pyrophoric	135	1855			
Calcium arsenate	151	1573			
Calcium arsenate and Calcium arsenite mixture, solid	151	1574			

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Calcium hypochlorite mixture, dry, corrosive, with more than 39% available chlorine (8.8% available oxygen)	140	3485	Carbamate pesticide, liquid, toxic, flammable	131	2991
Calcium hypochlorite mixture, dry, with more than 10% but not more than 39% available Chlorine	140	2208	Carbamate pesticide, solid, poisonous	151	2757
Calcium hypochlorite mixture, dry, with more than 39% available Chlorine (8.8% available Oxygen)	140	1748	Carbamate pesticide, solid, toxic	151	2757
Calcium manganese silicon	138	2844	Carbon, activated	133	1362
Calcium nitrate	140	1454	Carbon, animal or vegetable origin	133	1361
Calcium oxide	157	1910	Carbon bisulfide	131	1131
Calcium perchlorate	140	1455	Carbon bisulphide	131	1131
Calcium permanganate	140	1456	Carbon dioxide	120	1013
Calcium peroxide	140	1457	Carbon dioxide, compressed	120	1013
Calcium phosphide	139	1360	Carbon dioxide, refrigerated liquid	120	2187
Calcium resinate	133	1313	Carbon dioxide, solid	120	1845
Calcium resinate, fused	133	1314	Carbon dioxide and Ethylene oxide mixture, with more than 9% but not more than 87% Ethylene oxide	115	1041
Calcium silicide	138	1405	Carbon dioxide and Ethylene oxide mixture, with more than 87% Ethylene oxide	119P	3300
Camphor, synthetic	133	2717	Carbon dioxide and Ethylene oxide mixtures, with not more than 9% Ethylene oxide	126	1952
Camphor oil	128	1130	Carbon dioxide and Nitrous oxide mixture	126	1015
Capacitor, asymmetric	171	3508	Carbon dioxide and Oxygen mixture, compressed	122	1014
Capacitor, electric double layer	171	3499	Carbon disulfide	131	1131
Caproic acid	153	2829	Carbon disulphide	131	1131
Carbamate pesticide, liquid, flammable, poisonous	131	2758	Carbon monoxide	119	1016
Carbamate pesticide, liquid, flammable, toxic	131	2758	Carbon monoxide, compressed	119	1016
Carbamate pesticide, liquid, poisonous	151	2992	Carbon monoxide, refrigerated liquid (cryogenic liquid)	168	9202
Carbamate pesticide, liquid, poisonous, flammable	131	2991	Carbon tetrabromide	151	2516
Carbamate pesticide, liquid, toxic	151	2992	Carbon tetrachloride	151	1846

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Carbonyl fluoride	125	2417	Chemical under pressure, flammable, poisonous, n.o.s.	119	3504
Carbonyl fluoride, compressed	125	2417	Chemical under pressure, flammable, toxic, n.o.s.	119	3504
Carbonyl sulfide	119	2204	Chemical under pressure, n.o.s.	126	3500
Carbonyl sulphide	119	2204	Chemical under pressure, poisonous, n.o.s.	123	3502
Castor beans, meal, pomace or flake	171	2969	Chemical under pressure, toxic, n.o.s.	123	3502
Caustic alkali liquid, n.o.s.	154	1719	Chloral, anhydrous, stabilized	153	2075
Caustic potash, solid	154	1813	Chlorate and Borate mixture	140	1458
Caustic potash, solution	154	1814	Chlorate and Magnesium chloride mixture, solid	140	1459
Caustic soda, solid	154	1823	Chlorate and Magnesium chloride mixture, solution	140	3407
Caustic soda, solution	154	1824	Chlorates, inorganic, aqueous solution, n.o.s.	140	3210
Cells, containing Sodium	138	3292	Chlorates, inorganic, n.o.s.	140	1461
Celluloid, in blocks, rods, rolls, sheets, tubes, etc., except scrap	133	2000	Chloric acid, aqueous solution, with not more than 10% Chloric acid	140	2626
Celluloid, scrap	135	2002	Chlorine	124	1017
Cerium, slabs, ingots or rods	170	1333	Chlorine, adsorbed	173	3520
Cerium, turnings or gritty powder	138	3078	Chlorine dioxide, hydrate, frozen	143	9191
Cesium	138	1407	Chlorine pentafluoride	124	2548
Cesium hydroxide	157	2682	Chlorine trifluoride	124	1749
Cesium hydroxide, solution	154	2681	Chlorite solution	154	1908
Cesium nitrate	140	1451	Chlorites, inorganic, n.o.s.	143	1462
CG	125	—	Chloroacetaldehyde	153	2232
Charcoal	133	1361	Chloroacetic acid, molten	153	3250
Chemical kit	154	1760	Chloroacetic acid, solid	153	1751
Chemical kit	171	3316	Chloroacetic acid, solution	153	1750
Chemical sample, poisonous	151	3315	Chloroacetone, stabilized	131	1695
Chemical sample, toxic	151	3315	Chloroacetonitrile	131	2668
Chemical under pressure, corrosive, n.o.s.	125	3503			
Chemical under pressure, flammable, corrosive, n.o.s.	118	3505			
Chemical under pressure, flammable, n.o.s.	115	3501			

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Chloroacetophenone, liquid	153	3416	3-Chloro-4-methylphenyl isocyanate, solid	156	3428
Chloroacetophenone, solid	153	1697	Chloronitroanilines	153	2237
Chloroacetyl chloride	156	1752	Chloronitrobenzenes, liquid	152	3409
Chloroanilines, liquid	152	2019	Chloronitrobenzenes, solid	152	1578
Chloroanilines, solid	152	2018	Chloronitrotoluenes, liquid	152	2433
Chloroanisidines	152	2233	Chloronitrotoluenes, solid	152	3457
Chlorobenzene	130	1134	Chloropentafluoroethane	126	1020
Chlorobenzotrifluorides	130	2234	Chloropentafluoroethane and Chlorodifluoromethane mixture	126	1973
Chlorobenzyl chlorides, liquid	153	2235	Chlorophenolates, liquid	154	2904
Chlorobenzyl chlorides, solid	153	3427	Chlorophenolates, solid	154	2905
Chlorobutanes	130	1127	Chlorophenols, liquid	153	2021
Chlorocresols, solid	152	3437	Chlorophenols, solid	153	2020
Chlorocresols, solution	152	2669	Chlorophenyltrichlorosilane	156	1753
Chlorodifluorobromomethane	126	1974	Chloropicrin	154	1580
1-Chloro-1,1-difluoroethane	115	2517	Chloropicrin and Methyl bromide mixture	123	1581
Chlorodifluoromethane	126	1018	Chloropicrin and Methyl chloride mixture	119	1582
Chlorodifluoromethane and Chloropentafluoroethane mixture	126	1973	Chloropicrin mixture, n.o.s.	154	1583
Chlorodinitrobenzenes, liquid	153	1577	Chloropivaloyl chloride	156	9263
Chlorodinitrobenzenes, solid	153	3441	Chloroplatinic acid, solid	154	2507
2-Chloroethanal	153	2232	Chloroprene, stabilized	131P	1991
Chloroform	151	1888	1-Chloropropane	129	1278
Chloroformates, poisonous, corrosive, flammable, n.o.s.	155	2742	2-Chloropropane	129	2356
Chloroformates, poisonous, corrosive, n.o.s.	154	3277	3-Chloropropanol-1	153	2849
Chloroformates, toxic, corrosive, flammable, n.o.s.	155	2742	2-Chloropropene	130P	2456
Chloroformates, toxic, corrosive, n.o.s.	154	3277	2-Chloropropionic acid	153	2511
Chloromethyl chloroformate	157	2745	2-Chloropyridine	153	2822
Chloromethyl ethyl ether	131	2354	Chlorosilanes, corrosive, flammable, n.o.s.	155	2986
3-Chloro-4-methylphenyl isocyanate, liquid	156	2236	Chlorosilanes, corrosive, n.o.s.	156	2987

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Chlorosilanes, flammable, corrosive, n.o.s.	155	2985
Chlorosilanes, poisonous, corrosive, flammable, n.o.s.	155	3362
Chlorosilanes, poisonous, corrosive, n.o.s.	156	3361
Chlorosilanes, toxic, corrosive, flammable, n.o.s.	155	3362
Chlorosilanes, toxic, corrosive, n.o.s.	156	3361
Chlorosilanes, water-reactive, flammable, corrosive, n.o.s.	139	2988
Chlorosulfonic acid (with or without sulfur trioxide)	137	1754
Chlorosulphonic acid (with or without sulphur trioxide)	137	1754
1-Chloro-1,2,2,2-tetrafluoroethane	126	1021
Chlorotetrafluoroethane and Ethylene oxide mixture, with not more than 8.8% Ethylene oxide	126	3297
Chlorotoluenes	129	2238
4-Chloro-o-toluidine hydrochloride, solid	153	1579
4-Chloro-o-toluidine hydrochloride, solution	153	3410
Chlorotoluidines, liquid	153	3429
Chlorotoluidines, solid	153	2239
1-Chloro-2,2,2-trifluoroethane	126	1983
Chlorotrifluoromethane	126	1022
Chlorotrifluoromethane and Trifluoromethane azeotropic mixture with approximately 60% Chlorotrifluoromethane	126	2599
Chromic acid, solution	154	1755
Chromic fluoride, solid	154	1756
Chromic fluoride, solution	154	1757
Chromium nitrate	141	2720

Chromium oxychloride	137	1758
Chromium trioxide, anhydrous	141	1463
Chromosulfuric acid	154	2240
Chromosulphuric acid	154	2240
CK	125	—
Clinical waste, unspecified, n.o.s.	158	3291
CN	153	—
Coal gas	119	1023
Coal gas, compressed	119	1023
Coal tar distillates, flammable	128	1136
Coating solution	127	1139
Cobalt naphthenates, powder	133	2001
Cobalt resinate, precipitated	133	1318
Combustible liquid, n.o.s.	128	1993
Compounds, cleaning liquid (corrosive)	154	1760
Compounds, cleaning liquid (flammable)	128	1993
Compounds, tree or weed killing, liquid (corrosive)	154	1760
Compounds, tree or weed killing, liquid (flammable)	128	1993
Compounds, tree or weed killing, liquid (toxic)	153	2810
Compressed gas, flammable, n.o.s.	115	1954
Compressed gas, n.o.s.	126	1956
Compressed gas, oxidizing, n.o.s.	122	3156
Compressed gas, poisonous, corrosive, n.o.s.	125	3304
Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)	125	3304

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Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)	125	3304
Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)	125	3304
Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)	125	3304
Compressed gas, poisonous, flammable, corrosive, n.o.s.	119	3305
Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	119	3305
Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	119	3305
Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	119	3305
Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	119	3305
Compressed gas, poisonous, flammable, n.o.s.	119	1953
Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	119	1953
Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	119	1953
Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	119	1953
Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	119	1953
Compressed gas, poisonous, n.o.s.	123	1955
Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone A)	123	1955

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Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone B)	123	1955
Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone C)	123	1955
Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone D)	123	1955
Compressed gas, poisonous, oxidizing, corrosive, n.o.s.	124	3306
Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	124	3306
Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	124	3306
Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	124	3306
Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	124	3306
Compressed gas, poisonous, oxidizing, n.o.s.	124	3303
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)	124	3303
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)	124	3303
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)	124	3303
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)	124	3303
Compressed gas, toxic, corrosive, n.o.s.	125	3304
Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)	125	3304

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Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)	125	3304
Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)	125	3304
Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)	125	3304
Compressed gas, toxic, flammable, corrosive, n.o.s.	119	3305
Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	119	3305
Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	119	3305
Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	119	3305
Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	119	3305
Compressed gas, toxic, flammable, n.o.s.	119	1953
Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	119	1953
Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	119	1953
Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	119	1953
Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	119	1953
Compressed gas, toxic, n.o.s.	123	1955
Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone A)	123	1955
Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone B)	123	1955

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Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone C)	123	1955
Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone D)	123	1955
Compressed gas, toxic, oxidizing, corrosive, n.o.s.	124	3306
Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	124	3306
Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	124	3306
Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	124	3306
Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	124	3306
Compressed gas, toxic, oxidizing, n.o.s.	124	3303
Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)	124	3303
Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)	124	3303
Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)	124	3303
Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)	124	3303
Compressed gas and hexaethyl tetraphosphate mixture	123	1612
Consumer commodity	171	8000
Copper acetoarsenite	151	1585
Copper arsenite	151	1586
Copper based pesticide, liquid, flammable, poisonous	131	2776
Copper based pesticide, liquid, flammable, toxic	131	2776

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Copper based pesticide, liquid, poisonous	151	3010	Corrosive solid, acidic, organic, n.o.s.	154	3261
Copper based pesticide, liquid, poisonous, flammable	131	3009	Corrosive solid, basic, inorganic, n.o.s.	154	3262
Copper based pesticide, liquid, toxic	151	3010	Corrosive solid, basic, organic, n.o.s.	154	3263
Copper based pesticide, liquid, toxic, flammable	131	3009	Corrosive solid, flammable, n.o.s.	134	2921
Copper based pesticide, solid, poisonous	151	2775	Corrosive solid, n.o.s.	154	1759
Copper based pesticide, solid, toxic	151	2775	Corrosive solid, oxidizing, n.o.s.	157	3084
Copper chlorate	140	2721	Corrosive solid, poisonous, n.o.s.	154	2923
Copper chloride	154	2802	Corrosive solid, self-heating, n.o.s.	136	3095
Copper cyanide	151	1587	Corrosive solid, toxic, n.o.s.	154	2923
Copra	135	1363	Corrosive solid, water-reactive, n.o.s.	138	3096
Corrosive liquid, acidic, inorganic, n.o.s.	154	3264	Cotton	133	1365
Corrosive liquid, acidic, organic, n.o.s.	153	3265	Cotton, wet	133	1365
Corrosive liquid, basic, inorganic, n.o.s.	154	3266	Cotton waste, oily	133	1364
Corrosive liquid, basic, organic, n.o.s.	153	3267	Coumarin derivative pesticide, liquid, flammable, poisonous	131	3024
Corrosive liquid, flammable, n.o.s.	132	2920	Coumarin derivative pesticide, liquid, flammable, toxic	131	3024
Corrosive liquid, n.o.s.	154	1760	Coumarin derivative pesticide, liquid, poisonous	151	3026
Corrosive liquid, oxidizing, n.o.s.	157	3093	Coumarin derivative pesticide, liquid, poisonous, flammable	131	3025
Corrosive liquid, poisonous, n.o.s.	154	2922	Coumarin derivative pesticide, liquid, toxic	151	3026
Corrosive liquid, self-heating, n.o.s.	136	3301	Coumarin derivative pesticide, liquid, toxic, flammable	131	3025
Corrosive liquid, toxic, n.o.s.	154	2922	Coumarin derivative pesticide, solid, poisonous	151	3027
Corrosive liquid, water-reactive, n.o.s.	138	3094	Coumarin derivative pesticide, solid, toxic	151	3027
Corrosive solid, acidic, inorganic, n.o.s.	154	3260	Cresols, liquid	153	2076

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Cresols, solid	153	3455	Cyclohexyl mercaptan	129	3054
Cresylic acid	153	2022	Cyclohexyltrichlorosilane	156	1763
Crotonaldehyde	131P	1143	Cyclooctadiene phosphines	135	2940
Crotonaldehyde, stabilized	131P	1143	Cyclooctadienes	130P	2520
Crotonic acid, liquid	153	3472	Cyclooctatetraene	128P	2358
Crotonic acid, solid	153	2823	Cyclopentane	128	1146
Crotonylene	128	1144	Cyclopentanol	129	2244
CS	153	—	Cyclopentanone	128	2245
Cumene	130	1918	Cyclopentene	128	2246
Cupriethylenediamine, solution	154	1761	Cyclopropane	115	1027
CX	154	—	Cymenes	130	2046
Cyanide solution, n.o.s.	157	1935	DA	151	—
Cyanides, inorganic, solid, n.o.s.	157	1588	Dangerous goods in apparatus	171	3363
Cyanogen	119	1026	Dangerous goods in articles	171	3363
Cyanogen bromide	157	1889	Dangerous goods in machinery	171	3363
Cyanogen chloride, stabilized	125	1589	DC	153	—
Cyanuric chloride	157	2670	Decaborane	134	1868
Cyclobutane	115	2601	Decahydronaphthalene	130	1147
Cyclobutyl chloroformate	155	2744	n-Decane	128	2247
1,5,9-Cyclododecatriene	153	2518	Denatured alcohol	127	1987
Cycloheptane	128	2241	Desensitized explosive, liquid, n.o.s.	113	3379
Cycloheptatriene	131	2603	Desensitized explosive, solid, n.o.s.	113	3380
Cycloheptene	128	2242	Deuterium	115	1957
Cyclohexane	128	1145	Deuterium, compressed	115	1957
Cyclohexanethiol	129	3054	Devices, small, hydrocarbon gas powered, with release device	115	3150
Cyclohexanone	127	1915	Diacetone alcohol	129	1148
Cyclohexene	130	2256	Diacetyl	127	2346
Cyclohexenyltrichlorosilane	156	1762	Diallylamine	132	2359
Cyclohexyl acetate	130	2243	Diallyl ether	131P	2360
Cyclohexylamine	132	2357	4,4'-Diaminodiphenylmethane	153	2651
Cyclohexyl isocyanate	155	2488			

Name of Material	Guide ID		Name of Material	Guide ID	
	No.	No.		No.	No.
Di-n-amylamine	131	2841	Dichloroisocyanuric acid, dry	140	2465
Dibenzylchlorosilane	156	2434	Dichloroisocyanuric acid salts	140	2465
Diborane	119	1911	Dichloroisopropyl ether	153	2490
Diborane, compressed	119	1911	Dichloromethane	160	1593
Diborane mixtures	119	1911	1,1-Dichloro-1-nitroethane	153	2650
1,2-Dibromobutan-3-one	154	2648	Dichloropentanes	130	1152
Dibromochloropropanes	159	2872	Dichlorophenyl isocyanates	156	2250
Dibromodifluoromethane	171	1941	Dichlorophenyltrichlorosilane	156	1766
Dibromomethane	160	2664	1,2-Dichloropropane	130	1279
Di-n-butylamine	132	2248	1,3-Dichloropropanol-2	153	2750
Dibutylaminoethanol	153	2873	Dichloropropenes	129	2047
Dibutyl ethers	128	1149	Dichlorosilane	119	2189
Dichloroacetic acid	153	1764	1,2-Dichloro-1,1,2,2-tetrafluoroethane	126	1958
1,3-Dichloroacetone	153	2649	3,5-Dichloro-2,4,6-trifluoropyridine	151	9264
Dichloroanilines, liquid	153	1590	Dicyclohexylamine	153	2565
Dichloroanilines, solid	153	3442	Dicyclohexylammonium nitrite	133	2687
o-Dichlorobenzene	152	1591	Dicyclopentadiene	130P	2048
2,2'-Dichlorodiethyl ether	152	1916	1,2-Di-(dimethylamino)ethane	129	2372
Dichlorodifluoromethane	126	1028	Didymium nitrate	140	1465
Dichlorodifluoromethane and Difluoroethane azeotropic mixture with approximately 74% Dichlorodifluoromethane	126	2602	Diesel fuel	128	1202
Dichlorodifluoromethane and Ethylene oxide mixture, with not more than 12.5% Ethylene oxide	126	3070	Diesel fuel	128	1993
Dichlorodimethyl ether, symmetrical	131	2249	Diethoxymethane	127	2373
1,1-Dichloroethane	130	2362	3,3-Diethoxypropene	127	2374
1,2-Dichloroethylene	130P	1150	Diethylamine	132	1154
Dichloroethyl ether	152	1916	2-Diethylaminoethanol	132	2686
Dichlorofluoromethane	126	1029	3-Diethylaminopropylamine	132	2684
			N,N-Diethylaniline	153	2432
			Diethylbenzene	130	2049
			Diethyl carbonate	128	2366
			Diethylchlorosilane	155	1767
			Diethylenetriamine	154	2079

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Diethyl ether	127	1155	2-Dimethylaminoacetonitrile	131	2378
N,N-Diethylethylenediamine	132	2685	2-Dimethylaminoethanol	132	2051
Diethyl ketone	127	1156	2-Dimethylaminoethyl acrylate	152	3302
Diethyl sulfate	152	1594	2-Dimethylaminoethyl methacrylate	153P	2522
Diethyl sulfide	129	2375	N,N-Dimethylaniline	153	2253
Diethyl sulphate	152	1594	2,3-Dimethylbutane	128	2457
Diethyl sulphide	129	2375	1,3-Dimethylbutylamine	132	2379
Diethylthiophosphoryl chloride	155	2751	Dimethylcarbamoyl chloride	156	2262
Diethylzinc	135	1366	Dimethyl carbonate	129	1161
Difluorochloroethanes	115	2517	Dimethylcyclohexanes	128	2263
1,1-Difluoroethane	115	1030	N,N-Dimethylcyclohexylamine	132	2264
Difluoroethane and Dichlorodifluoromethane azeotropic mixture with approximately 74% Dichlorodifluoromethane	126	2602	Dimethylcyclohexylamine	132	2264
1,1-Difluoroethylene	116P	1959	Dimethyldichlorosilane	155	1162
Difluoromethane	115	3252	Dimethyldiethoxysilane	127	2380
Difluorophosphoric acid, anhydrous	154	1768	Dimethyldioxanes	127	2707
2,3-Dihydropyran	127	2376	Dimethyl disulfide	131	2381
Diisobutylamine	132	2361	Dimethyl disulphide	131	2381
Diisobutylene, isomeric compounds	128	2050	Dimethyl ether	115	1033
Diisobutyl ketone	128	1157	N,N-Dimethylformamide	129	2265
Diisooctyl acid phosphate	153	1902	Dimethylhydrazine, symmetrical	131	2382
Diisopropylamine	132	1158	Dimethylhydrazine, unsymmetrical	131	1163
Diisopropyl ether	127	1159	2,2-Dimethylpropane	115	2044
Diketene, stabilized	131P	2521	Dimethyl-N-propylamine	132	2266
1,1-Dimethoxyethane	127	2377	Dimethyl sulfate	156	1595
1,2-Dimethoxyethane	127	2252	Dimethyl sulfide	130	1164
Dimethylamine, anhydrous	118	1032	Dimethyl sulphate	156	1595
Dimethylamine, aqueous solution	132	1160	Dimethyl sulphide	130	1164
Dimethylamine, solution	132	1160	Dimethyl thiophosphoryl chloride	156	2267
			Dimethylzinc	135	1370

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Dinitroanilines	153	1596	Disinfectant, liquid, poisonous, n.o.s.	151	3142
Dinitrobenzenes, liquid	152	1597	Disinfectant, liquid, toxic, n.o.s.	151	3142
Dinitrobenzenes, solid	152	3443	Disinfectant, solid, poisonous, n.o.s.	151	1601
Dinitro-o-cresol	153	1598	Disinfectant, solid, toxic, n.o.s.	151	1601
Dinitrogen tetroxide	124	1067	Disodium trioxosilicate	154	3253
Dinitrogen tetroxide and Nitric oxide mixture	124	1975	Dispersant gas, n.o.s.	126	1078
Dinitrophenol, solution	153	1599	Dispersant gases, n.o.s. (flammable)	115	1954
Dinitrophenol, wetted with not less than 15% water	113	1320	Divinyl ether, stabilized	128P	1167
Dinitrophenolates, wetted with not less than 15% water	113	1321	DM	154	—
Dinitroresorcinol, wetted with not less than 15% water	113	1322	Dodecyltrichlorosilane	156	1771
Dinitrotoluenes, liquid	152	2038	DP	125	—
Dinitrotoluenes, molten	152	1600	Dry ice	120	1845
Dinitrotoluenes, solid	152	3454	Dye, liquid, corrosive, n.o.s.	154	2801
Dioxane	127	1165	Dye, liquid, poisonous, n.o.s.	151	1602
Dioxolane	127	1166	Dye, liquid, toxic, n.o.s.	151	1602
Dipentene	128	2052	Dye, solid, corrosive, n.o.s.	154	3147
Diphenylamine chloroarsine	154	1698	Dye, solid, poisonous, n.o.s.	151	3143
Diphenylchloroarsine, liquid	151	1699	Dye, solid, toxic, n.o.s.	151	3143
Diphenylchloroarsine, solid	151	3450	Dye intermediate, liquid, corrosive, n.o.s.	154	2801
Diphenyldichlorosilane	156	1769	Dye intermediate, liquid, poisonous, n.o.s.	151	1602
Diphenylmethyl bromide	153	1770	Dye intermediate, liquid, toxic, n.o.s.	151	1602
Dipicryl sulfide, wetted with not less than 10% water	113	2852	Dye intermediate, solid, corrosive, n.o.s.	154	3147
Dipicryl sulphide, wetted with not less than 10% water	113	2852	Dye intermediate, solid, poisonous, n.o.s.	151	3143
Dipropylamine	132	2383	Dye intermediate, solid, toxic, n.o.s.	151	3143
Di-n-propyl ether	127	2384	ED	151	—
Dipropyl ketone	128	2710			
Disinfectant, liquid, corrosive, n.o.s.	153	1903			

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Elevated temperature liquid, flammable, n.o.s., with flash point above 37.8°C (100°F), at or above its flash point	128	3256	Esters, n.o.s.	127	3272
Elevated temperature liquid, flammable, n.o.s., with flash point above 60°C (140°F), at or above its flash point	128	3256	Ethane	115	1035
Elevated temperature liquid, n.o.s., at or above 100°C (212°F), and below its flash point	171	3257	Ethane, compressed	115	1035
Elevated temperature solid, n.o.s., at or above 240°C (464°F)	171	3258	Ethane, refrigerated liquid	115	1961
Engine, fuel cell, flammable gas powered	115	3166	Ethane-Propane mixture, refrigerated liquid	115	1961
Engine, fuel cell, flammable gas powered	115	3529	Ethanol	127	1170
Engine, fuel cell, flammable liquid powered	128	3166	Ethanol and gasoline mixture, with more than 10% ethanol	127	3475
Engine, fuel cell, flammable liquid powered	128	3528	Ethanol and motor spirit mixture, with more than 10% ethanol	127	3475
Engine, internal combustion	128	3166	Ethanol and petrol mixture, with more than 10% ethanol	127	3475
Engine, internal combustion	171	3530	Ethanol, solution	127	1170
Engine, internal combustion, flammable gas powered	115	3529	Ethanolamine	153	2491
Engine, internal combustion, flammable liquid powered	128	3528	Ethanolamine, solution	153	2491
Engines, internal combustion, flammable gas powered	115	3166	Ethers, n.o.s.	127	3271
Engines, internal combustion, flammable liquid powered	128	3166	Ethyl acetate	129	1173
Environmentally hazardous substance, liquid, n.o.s.	171	3082	Ethylacetylene, stabilized	116P	2452
Environmentally hazardous substance, solid, n.o.s.	171	3077	Ethyl acrylate, stabilized	129P	1917
Epibromohydrin	131	2558	Ethyl alcohol	127	1170
Epichlorohydrin	131P	2023	Ethyl alcohol, solution	127	1170
1,2-Epoxy-3-ethoxypropane	127	2752	Ethylamine	118	1036
			Ethylamine, aqueous solution, with not less than 50% but not more than 70% Ethylamine	132	2270
			Ethyl amyl ketone	128	2271
			2-Ethylaniline	153	2273
			N-Ethylaniline	153	2272
			Ethylbenzene	130	1175
			N-Ethyl-N-benzylaniline	153	2274
			N-Ethylbenzyltoluidines, liquid	153	2753
			N-Ethylbenzyltoluidines, solid	153	3460

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Ethyl borate	129	1176	Ethylene glycol monoethyl ether	127	1171
Ethyl bromide	131	1891	Ethylene glycol monoethyl ether acetate	129	1172
Ethyl bromoacetate	155	1603	Ethylene glycol monomethyl ether	127	1188
2-Ethylbutanol	129	2275	Ethylene glycol monomethyl ether acetate	129	1189
2-Ethylbutyl acetate	130	1177	Ethyleneimine, stabilized	131P	1185
Ethyl butyl ether	127	1179	Ethylene oxide	119P	1040
2-Ethylbutyraldehyde	130	1178	Ethylene oxide and Carbon dioxide mixture, with more than 9% but not more than 87% Ethylene oxide	115	1041
Ethyl butyrate	130	1180	Ethylene oxide and Carbon dioxide mixture, with more than 87% Ethylene oxide	119P	3300
Ethyl chloride	115	1037	Ethylene oxide and Carbon dioxide mixtures, with not more than 9% Ethylene oxide	126	1952
Ethyl chloroacetate	155	1181	Ethylene oxide and Chlorotetrafluoroethane mixture, with not more than 8.8% Ethylene oxide	126	3297
Ethyl chloroformate	155	1182	Ethylene oxide and Dichlorodifluoromethane mixture, with not more than 12.5% Ethylene oxide	126	3070
Ethyl 2-chloropropionate	129	2935	Ethylene oxide and Pentafluoroethane mixture, with not more than 7.9% Ethylene oxide	126	3298
Ethyl chlorothioformate	155	2826	Ethylene oxide and Propylene oxide mixture, with not more than 30% Ethylene oxide	131P	2983
Ethyl crotonate	130	1862	Ethylene oxide and Tetrafluoroethane mixture, with not more than 5.6% Ethylene oxide	126	3299
Ethyl dichloroarsine	151	1892	Ethylene oxide with Nitrogen	119P	1040
Ethyl dichlorosilane	139	1183	Ethyl ether	127	1155
Ethylene	116P	1962	Ethyl fluoride	115	2453
Ethylene, Acetylene and Propylene in mixture, refrigerated liquid containing at least 71.5% Ethylene with not more than 22.5% Acetylene and not more than 6% Propylene	115	3138			
Ethylene, compressed	116P	1962			
Ethylene, refrigerated liquid (cryogenic liquid)	115	1038			
Ethylene chlorohydrin	131	1135			
Ethylenediamine	132	1604			
Ethylene dibromide	154	1605			
Ethylene dibromide and Methyl bromide mixture, liquid	151	1647			
Ethylene dichloride	131	1184			
Ethylene glycol diethyl ether	127	1153			

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Ethyl formate	129	1190	Fabrics, animal or vegetable or synthetic, n.o.s. with oil	133	1373
Ethylhexaldehydes	129	1191	Fabrics impregnated with weakly nitrated Nitrocellulose, n.o.s.	133	1353
2-Ethylhexylamine	132	2276	Ferric arsenate	151	1606
2-Ethylhexyl chloroformate	156	2748	Ferric arsenite	151	1607
Ethyl isobutyrate	129	2385	Ferric chloride, anhydrous	157	1773
Ethyl isocyanate	155	2481	Ferric chloride, solution	154	2582
Ethyl lactate	129	1192	Ferric nitrate	140	1466
Ethyl mercaptan	129	2363	Ferrocerium	170	1323
Ethyl methacrylate, stabilized	130P	2277	Ferrosilicon	139	1408
Ethyl methyl ether	115	1039	Ferrous arsenate	151	1608
Ethyl methyl ketone	127	1193	Ferrous chloride, solid	154	1759
Ethyl nitrite, solution	131	1194	Ferrous chloride, solution	154	1760
Ethyl orthoformate	129	2524	Ferrous metal borings, shavings, turnings or cuttings	170	2793
Ethyl oxalate	156	2525	Fertilizer, ammoniating solution, with free Ammonia	125	1043
Ethylphenyldichlorosilane	156	2435	Fibers, animal or vegetable, burnt, wet or damp	133	1372
Ethyl phosphonothioic dichloride, anhydrous	154	2927	Fibers, animal or vegetable or synthetic, n.o.s. with oil	133	1373
Ethyl phosphonous dichloride, anhydrous	135	2845	Fibers, vegetable, dry	133	3360
Ethyl phosphorodichloridate	154	2927	Fibers impregnated with weakly nitrated Nitrocellulose, n.o.s.	133	1353
1-Ethylpiperidine	132	2386	Fibres, animal or vegetable, burnt, wet or damp	133	1372
Ethyl propionate	129	1195	Fibres, animal or vegetable or synthetic, n.o.s. with oil	133	1373
Ethyl propyl ether	127	2615	Fibres, vegetable, dry	133	3360
Ethyl silicate	129	1292	Fibres impregnated with weakly nitrated Nitrocellulose, n.o.s.	133	1353
N-Ethyltoluidines	153	2754	Fibres, animal or vegetable, burnt, wet or damp	133	1372
Ethyltrichlorosilane	155	1196	Fibres, animal or vegetable or synthetic, n.o.s. with oil	133	1373
Explosives, division 1.1, 1.2, 1.3 or 1.5	112	—	Fibres, vegetable, dry	133	3360
Explosives, division 1.4 or 1.6	114	—	Fibres impregnated with weakly nitrated Nitrocellulose, n.o.s.	133	1353
Extracts, aromatic, liquid	127	1169	Films, nitrocellulose base	133	1324
Extracts, flavoring, liquid	127	1197	Fire extinguisher charges, corrosive liquid	154	1774
Extracts, flavouring, liquid	127	1197			

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Fire extinguishers with compressed or liquefied gas	126	1044	Flammable solid, toxic, organic, n.o.s.	134	2926
Firelighters, solid, with flammable liquid	133	2623	Fluorine	124	1045
First aid kit	171	3316	Fluorine, compressed	124	1045
Fish meal, stabilized	171	2216	Fluoroacetic acid	154	2642
Fish meal, unstabilized	133	1374	Fluoroanilines	153	2941
Fish scrap, stabilized	171	2216	Fluorobenzene	130	2387
Fish scrap, unstabilized	133	1374	Fluoroboric acid	154	1775
Flammable liquid, corrosive, n.o.s.	132	2924	Fluorophosphoric acid, anhydrous	154	1776
Flammable liquid, n.o.s.	128	1993	Fluorosilicates, n.o.s.	151	2856
Flammable liquid, poisonous, corrosive, n.o.s.	131	3286	Fluorosilicic acid	154	1778
Flammable liquid, poisonous, n.o.s.	131	1992	Fluorosulfonic acid	137	1777
Flammable liquid, toxic, corrosive, n.o.s.	131	3286	Fluorosulphonic acid	137	1777
Flammable liquid, toxic, n.o.s.	131	1992	Fluorotoluenes	130	2388
Flammable solid, corrosive, inorganic, n.o.s.	134	3180	Formaldehyde, solution (corrosive)	153	2209
Flammable solid, corrosive, organic, n.o.s.	134	2925	Formaldehyde, solution, flammable	132	1198
Flammable solid, inorganic, n.o.s.	133	3178	Formalin (corrosive)	153	2209
Flammable solid, organic, molten, n.o.s.	133	3176	Formalin (flammable)	132	1198
Flammable solid, organic, n.o.s.	133	1325	Formic acid	153	1779
Flammable solid, oxidizing, n.o.s.	140	3097	Formic acid, with more than 85% acid	153	1779
Flammable solid, poisonous, inorganic, n.o.s.	134	3179	Formic acid, with not less than 5% but less than 10% acid	153	3412
Flammable solid, poisonous, organic, n.o.s.	134	2926	Formic acid, with not less than 10% but not more than 85% acid	153	3412
Flammable solid, toxic, inorganic, n.o.s.	134	3179	Fuel, aviation, turbine engine	128	1863
			Fuel cell cartridges, containing corrosive substances	153	3477
			Fuel cell cartridges, containing flammable liquids	128	3473
			Fuel cell cartridges, containing hydrogen in metal hydride	115	3479

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Fuel cell cartridges, containing liquefied flammable gas	115	3478	Furfurylamine	132	2526
Fuel cell cartridges, containing water-reactive substances	138	3476	Fusee (railway or highway)	133	1325
Fuel cell cartridges contained in equipment, containing corrosive substances	153	3477	Fusel oil	127	1201
Fuel cell cartridges contained in equipment, containing flammable liquids	128	3473	GA	153	—
Fuel cell cartridges contained in equipment, containing hydrogen in metal hydride	115	3479	Gallium	172	2803
Fuel cell cartridges contained in equipment, containing liquefied flammable gas	115	3478	Gas, refrigerated liquid, flammable, n.o.s.	115	3312
Fuel cell cartridges contained in equipment, containing water-reactive substances	138	3476	Gas, refrigerated liquid, n.o.s.	120	3158
Fuel cell cartridges packed with equipment, containing corrosive substances	153	3477	Gas, refrigerated liquid, oxidizing, n.o.s.	122	3311
Fuel cell cartridges packed with equipment, containing flammable liquids	128	3473	Gas cartridges	115	2037
Fuel cell cartridges packed with equipment, containing hydrogen in metal hydride	115	3479	Gas identification set	123	9035
Fuel cell cartridges packed with equipment, containing liquefied flammable gas	115	3478	Gasohol	128	1203
Fuel cell cartridges packed with equipment, containing water-reactive substances	138	3476	Gas oil	128	1202
Fuel cell cartridges packed with equipment, containing corrosive substances	153	3477	Gasoline	128	1203
Fuel cell cartridges packed with equipment, containing flammable liquids	128	3473	Gasoline and ethanol mixture, with more than 10% ethanol	127	3475
Fuel cell cartridges packed with equipment, containing hydrogen in metal hydride	115	3479	Gas sample, non-pressurized, flammable, n.o.s., not refrigerated liquid	115	3167
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Fuel cell cartridges packed with equipment, containing water-reactive substances	138	3476	Gas sample, non-pressurized, poisonous, n.o.s., not refrigerated liquid	123	3169
Fuel oil	128	1202	Gas sample, non-pressurized, toxic, flammable, n.o.s., not refrigerated liquid	119	3168
Fuel oil	128	1993	Gas sample, non-pressurized, toxic, n.o.s., not refrigerated liquid	123	3169
Fumaryl chloride	156	1780	GB	153	—
Fumigated cargo transport unit	171	3359	GD	153	—
Furaldehydes	153P	1199	Genetically modified micro-organisms	171	3245
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Glycerol alpha-monochlorohydrin	153	2689
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Halogenated monomethyldiphenylmethanes, liquid	171	3151
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Hazardous waste, liquid, n.o.s.	171	3082
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Heating oil, light	128	1202
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Heptafluoropropane	126	3296
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Hexachlorobenzene	152	2729
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Hexafluoroacetone	125	2420
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Hexafluoroacetone hydrate, solid	151	3436
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Hexafluoropropylene	126	1858
Hexafluoropropylene, compressed	126	1858
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Hexamethylenediamine, solid	153	2280
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Hexamethylene diisocyanate	156	2281
Hexamethyleneimine	132	2493
Hexamethylenetetramine	133	1328
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Hexanoic acid	153	2829
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Hydrazine aqueous solution, flammable, with more than 37% hydrazine, by mass	132	3484	Hydrogen in a metal hydride storage system contained in equipment	115	3468
Hydrazine, aqueous solution, with more than 37% Hydrazine	153	2030	Hydrogen in a metal hydride storage system packed with equipment	115	3468
Hydrazine, aqueous solution, with not more than 37% Hydrazine	152	3293	Hydrogen, refrigerated liquid (cryogenic liquid)	115	1966
Hydriodic acid	154	1787	Hydrogen and Methane mixture, compressed	115	2034
Hydrobromic acid	154	1788	Hydrogen bromide, anhydrous	125	1048
Hydrocarbon and butadienes mixture, stabilized	116P	1010	Hydrogen chloride, anhydrous	125	1050
Hydrocarbon gas mixture, compressed, n.o.s.	115	1964	Hydrogen chloride, refrigerated liquid	125	2186
Hydrocarbon gas mixture, liquefied, n.o.s.	115	1965	Hydrogen cyanide, anhydrous, stabilized	117P	1051
Hydrocarbon gas refills for small devices, with release device	115	3150	Hydrogen cyanide, aqueous solution, with not more than 20% Hydrogen cyanide	154	1613
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Hydrochloric acid	157	1789	Hydrogen cyanide, stabilized	117P	1051
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Hydrocyanic acid, aqueous solution, with not more than 20% Hydrogen cyanide	154	1613	Hydrogendifluorides, solid, n.o.s.	154	1740
Hydrofluoric acid	157	1790	Hydrogendifluorides, solution, n.o.s.	154	3471
Hydrofluoric acid and Sulfuric acid mixture	157	1786	Hydrogen fluoride, anhydrous	125	1052
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Hydrofluorosilicic acid	154	1778	Hydrogen peroxide, aqueous solution, stabilized, with more than 60% Hydrogen peroxide	143	2015
Hydrogen	115	1049	Hydrogen peroxide, aqueous solution, with not less than 8% but less than 20% Hydrogen peroxide	140	2984
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Hydrogen peroxide, aqueous solution, with not less than 20% but not more than 60% Hydrogen peroxide (stabilized as necessary)	140	2014	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	119	3355
Hydrogen peroxide, stabilized	143	2015	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	119	3355
Hydrogen peroxide and Peroxyacetic acid mixture, with acid(s), water and not more than 5% Peroxyacetic acid, stabilized	140	3149	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	119	3355
Hydrogen selenide, adsorbed	173	3526	Insecticide gas, poisonous, n.o.s.	123	1967
Hydrogen selenide, anhydrous	117	2202	Insecticide gas, toxic, flammable, n.o.s.	119	3355
Hydrogen sulfide	117	1053	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	119	3355
Hydrogen sulphide	117	1053	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	119	3355
1-Hydroxybenzotriazole, anhydrous, wetted with not less than 20% water	113	3474	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	119	3355
1-Hydroxybenzotriazole, monohydrate	113	3474	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	119	3355
Hydroxylamine sulfate	154	2865	Insecticide gas, toxic, n.o.s.	123	1967
Hydroxylamine sulphate	154	2865	Iodine	154	3495
Hypochlorite solution	154	1791	Iodine monochloride, liquid	157	3498
Hypochlorites, inorganic, n.o.s.	140	3212	Iodine monochloride, solid	157	1792
3,3'-Iminodipropylamine	153	2269	Iodine pentafluoride	144	2495
Infectious substance, affecting animals only	158	2900	2-Iodobutane	129	2390
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Insecticide gas, flammable, n.o.s.	115	3354	Iron oxide, spent	135	1376
Insecticide gas, n.o.s.	126	1968	Iron pentacarbonyl	136	1994
Insecticide gas, poisonous, flammable, n.o.s.	119	3355	Iron sponge, spent	135	1376
Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	119	3355	Isobutane	115	1075
			Isobutane	115	1969

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Isobutyl alcohol	129	1212
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Isobutylamine	132	1214
Isobutyl chloroformate	155	2742
Isobutylene	115	1055
Isobutylene	115	1075
Isobutyl formate	129	2393
Isobutyl isobutyrate	130	2528
Isobutyl isocyanate	155P	2486
Isobutyl methacrylate, stabilized	130P	2283
Isobutyl propionate	129	2394
Isobutyraldehyde	130	2045
Isobutyric acid	132	2529
Isobutyronitrile	131	2284
Isobutyryl chloride	132	2395
Isocyanate solution, flammable, poisonous, n.o.s.	155	2478
Isocyanate solution, flammable, toxic, n.o.s.	155	2478
Isocyanate solution, poisonous, flammable, n.o.s.	155	3080
Isocyanate solution, poisonous, n.o.s.	155	2206
Isocyanate solution, toxic, flammable, n.o.s.	155	3080
Isocyanate solution, toxic, n.o.s.	155	2206
Isocyanates, flammable, poisonous, n.o.s.	155	2478
Isocyanates, flammable, toxic, n.o.s.	155	2478

Isocyanates, poisonous, flammable, n.o.s.	155	3080
Isocyanates, poisonous, n.o.s.	155	2206
Isocyanates, toxic, flammable, n.o.s.	155	3080
Isocyanates, toxic, n.o.s.	155	2206
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Isopropyl acetate	129	1220
Isopropyl acid phosphate	153	1793
Isopropyl alcohol	129	1219
Isopropylamine	132	1221
Isopropylbenzene	130	1918
Isopropyl butyrate	129	2405
Isopropyl chloroacetate	155	2947
Isopropyl chloroformate	155	2407
Isopropyl 2-chloropropionate	129	2934
Isopropyl isobutyrate	127	2406
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Isopropyl nitrate	130	1222
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Isosorbide-5-mononitrate	133	3251	Liquefied gas, flammable, n.o.s.	115	3161
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Ketones, liquid, n.o.s.	127	1224	Liquefied gas, oxidizing, n.o.s.	122	3157
Krill meal	133	3497	Liquefied gas, poisonous, corrosive, n.o.s.	125	3308
Krypton	120	1056	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)	125	3308
Krypton, compressed	120	1056	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)	125	3308
Krypton, refrigerated liquid (cryogenic liquid)	120	1970	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)	125	3308
L (Lewisite)	153	—	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)	125	3308
Lead acetate	151	1616	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)	125	3308
Lead arsenates	151	1617	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)	125	3308
Lead arsenites	151	1618	Liquefied gas, poisonous, flammable, corrosive, n.o.s.	119	3309
Lead compound, soluble, n.o.s.	151	2291	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	119	3309
Lead cyanide	151	1620	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	119	3309
Lead dioxide	140	1872	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	119	3309
Lead nitrate	141	1469	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	119	3309
Lead perchlorate, solid	141	1470	Liquefied gas, poisonous, flammable, n.o.s.	119	3160
Lead perchlorate, solution	141	3408	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	119	3160
Lead phosphite, dibasic	133	2989	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	119	3160
Lead sulfate, with more than 3% free acid	154	1794	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	119	3160
Lead sulphate, with more than 3% free acid	154	1794	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	119	3160
Lewisite	153	—	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	119	3160
Life-saving appliances, not self-inflating	171	3072	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	119	3160
Life-saving appliances, self-inflating	171	2990	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	119	3160
Lighter refills containing flammable gas	115	1057	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	119	3160
Lighters containing flammable gas	115	1057	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	119	3160
Lighters, non-pressurized, containing flammable liquid	128	1057	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	119	3160

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Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	119	3160
Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	119	3160
Liquefied gas, poisonous, n.o.s.	123	3162
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone A)	123	3162
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone B)	123	3162
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone C)	123	3162
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone D)	123	3162
Liquefied gas, poisonous, oxidizing, corrosive, n.o.s.	124	3310
Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	124	3310
Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	124	3310
Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	124	3310
Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	124	3310
Liquefied gas, poisonous, oxidizing, n.o.s.	124	3307
Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)	124	3307
Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)	124	3307

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Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)	124	3307
Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)	124	3307
Liquefied gas, toxic, corrosive, n.o.s.	125	3308
Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)	125	3308
Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)	125	3308
Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)	125	3308
Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)	125	3308
Liquefied gas, toxic, flammable, corrosive, n.o.s.	119	3309
Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	119	3309
Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	119	3309
Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	119	3309
Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	119	3309
Liquefied gas, toxic, flammable, n.o.s.	119	3160
Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	119	3160
Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	119	3160

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Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	119	3160
Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	119	3160
Liquefied gas, toxic, n.o.s.	123	3162
Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone A)	123	3162
Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone B)	123	3162
Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone C)	123	3162
Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone D)	123	3162
Liquefied gas, toxic, oxidizing, corrosive, n.o.s.	124	3310
Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	124	3310
Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	124	3310
Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	124	3310
Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	124	3310
Liquefied gas, toxic, oxidizing, n.o.s.	124	3307
Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)	124	3307
Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)	124	3307
Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)	124	3307

Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)	124	3307
Liquefied gases, non-flammable, charged with Nitrogen, Carbon dioxide or Air	120	1058
Liquefied natural gas (cryogenic liquid)	115	1972
Liquefied petroleum gas	115	1075
Lithium	138	1415
Lithium aluminum hydride	138	1410
Lithium aluminum hydride, ethereal	138	1411
Lithium batteries	138	3090
Lithium batteries contained in equipment	138	3091
Lithium batteries installed in cargo transport unit (lithium ion batteries)	147	3536
Lithium batteries installed in cargo transport unit (lithium metal batteries)	138	3536
Lithium batteries packed with equipment	138	3091
Lithium borohydride	138	1413
Lithium ferrosilicon	139	2830
Lithium hydride	138	1414
Lithium hydride, fused solid	138	2805
Lithium hydroxide	154	2680
Lithium hydroxide, solution	154	2679
Lithium hypochlorite, dry	140	1471
Lithium hypochlorite mixture	140	1471
Lithium hypochlorite mixtures, dry	140	1471
Lithium ion batteries (including lithium ion polymer batteries)	147	3480

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Lithium ion batteries contained in equipment (including lithium ion polymer batteries)	147	3481	Magnesium alloys, with more than 50% Magnesium, in pellets, turnings or ribbons	138	1869
Lithium ion batteries packed with equipment (including lithium ion polymer batteries)	147	3481	Magnesium alloys powder	138	1418
Lithium metal batteries (including lithium alloy batteries)	138	3090	Magnesium aluminum phosphide	139	1419
Lithium metal batteries contained in equipment (including lithium alloy batteries)	138	3091	Magnesium arsenate	151	1622
Lithium metal batteries packed with equipment (including lithium alloy batteries)	138	3091	Magnesium bromate	140	1473
Lithium nitrate	140	2722	Magnesium chlorate	140	2723
Lithium nitride	139	2806	Magnesium chloride and Chlorate mixture, solid	140	1459
Lithium peroxide	143	1472	Magnesium chloride and Chlorate mixture, solution	140	3407
Lithium silicon	138	1417	Magnesium diamide	135	2004
LNG (cryogenic liquid)	115	1972	Magnesium diphenyl	135	2005
London purple	151	1621	Magnesium fluorosilicate	151	2853
LPG	115	1075	Magnesium granules, coated	138	2950
Machinery, fuel cell, flammable gas powered	115	3529	Magnesium hydride	138	2010
Machinery, fuel cell, flammable liquid powered	128	3528	Magnesium nitrate	140	1474
Machinery, internal combustion	171	3530	Magnesium perchlorate	140	1475
Machinery, internal combustion, flammable gas powered	115	3529	Magnesium peroxide	140	1476
Machinery, internal combustion, flammable liquid powered	128	3528	Magnesium phosphide	139	2011
Magnesium	138	1869	Magnesium powder	138	1418
Magnesium, in pellets, turnings or ribbons	138	1869	Magnesium silicide	138	2624
Magnesium alkyls	135	3053	Magnetized material	171	2807
			Maleic anhydride	156	2215
			Maleic anhydride, molten	156	2215
			Malononitrile	153	2647
			Maneb	135	2210
			Maneb, stabilized	135	2968
			Maneb preparation, stabilized	135	2968
			Maneb preparation, with not less than 60% Maneb	135	2210
			Manganese nitrate	140	2724

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Manganese resinate	133	1330	Mercaptans, liquid, poisonous, flammable, n.o.s.	131	3071
Matches, fusee	133	2254	Mercaptans, liquid, toxic, flammable, n.o.s.	131	3071
Matches, safety	133	1944	Mercuric arsenate	151	1623
Matches, "strike anywhere"	133	1331	Mercuric chloride	154	1624
Matches, wax "vesta"	133	1945	Mercuric nitrate	141	1625
MD	152	—	Mercuric potassium cyanide	157	1626
Medical waste, category A, affecting animals only, solid	158	3549	Mercurous nitrate	141	1627
Medical waste, category A, affecting humans, solid	158	3549	Mercury	172	2809
Medical waste, n.o.s.	158	3291	Mercury acetate	151	1629
Medicine, liquid, flammable, poisonous, n.o.s.	131	3248	Mercury ammonium chloride	151	1630
Medicine, liquid, flammable, toxic, n.o.s.	131	3248	Mercury based pesticide, liquid, flammable, poisonous	131	2778
Medicine, liquid, poisonous, n.o.s.	151	1851	Mercury based pesticide, liquid, flammable, toxic	131	2778
Medicine, liquid, toxic, n.o.s.	151	1851	Mercury based pesticide, liquid, poisonous	151	3012
Medicine, solid, poisonous, n.o.s.	151	3249	Mercury based pesticide, liquid, poisonous, flammable	131	3011
Medicine, solid, toxic, n.o.s.	151	3249	Mercury based pesticide, liquid, toxic	151	3012
Mercaptan mixture, liquid, flammable, n.o.s.	130	3336	Mercury based pesticide, liquid, toxic, flammable	131	3011
Mercaptan mixture, liquid, flammable, poisonous, n.o.s.	131	1228	Mercury based pesticide, solid, poisonous	151	2777
Mercaptan mixture, liquid, flammable, toxic, n.o.s.	131	1228	Mercury based pesticide, solid, toxic	151	2777
Mercaptan mixture, liquid, poisonous, flammable, n.o.s.	131	3071	Mercury benzoate	154	1631
Mercaptan mixture, liquid, toxic, flammable, n.o.s.	131	3071	Mercury bromides	154	1634
Mercaptans, liquid, flammable, n.o.s.	130	3336	Mercury compound, liquid, n.o.s.	151	2024
Mercaptans, liquid, flammable, poisonous, n.o.s.	131	1228	Mercury compound, solid, n.o.s.	151	2025
Mercaptans, liquid, flammable, toxic, n.o.s.	131	1228	Mercury contained in manufactured articles	172	3506
			Mercury cyanide	154	1636

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Mercury gluconate	151	1637	Methacrylonitrile, stabilized	131P	3079
Mercury iodide	151	1638	Methallyl alcohol	129	2614
Mercury nucleate	151	1639	Methane	115	1971
Mercury oleate	151	1640	Methane, compressed	115	1971
Mercury oxide	151	1641	Methane, refrigerated liquid (cryogenic liquid)	115	1972
Mercury oxycyanide, desensitized	151	1642	Methane and Hydrogen mixture, compressed	115	2034
Mercury potassium iodide	151	1643	Methanesulfonyl chloride	156	3246
Mercury salicylate	151	1644	Methanesulphonyl chloride	156	3246
Mercury sulfate	151	1645	Methanol	131	1230
Mercury sulphate	151	1645	Methoxymethyl isocyanate	155	2605
Mercury thiocyanate	151	1646	4-Methoxy-4-methylpentan-2-one	128	2293
Mesityl oxide	129	1229	1-Methoxy-2-propanol	129	3092
Metal carbonyls, liquid, n.o.s.	151	3281	Methyl acetate	129	1231
Metal carbonyls, solid, n.o.s.	151	3466	Methylacetylene and Propadiene mixture, stabilized	116P	1060
Metal catalyst, dry	135	2881	Methyl acrylate, stabilized	129P	1919
Metal catalyst, wetted	170	1378	Methylal	127	1234
Metaldehyde	133	1332	Methyl alcohol	131	1230
Metal hydrides, flammable, n.o.s.	170	3182	Methylallyl chloride	130P	2554
Metal hydrides, water-reactive, n.o.s.	138	1409	Methylamine, anhydrous	118	1061
Metallic substance, water-reactive, n.o.s.	138	3208	Methylamine, aqueous solution	132	1235
Metallic substance, water-reactive, self-heating, n.o.s.	138	3209	Methylamyl acetate	130	1233
Metal powder, flammable, n.o.s.	170	3089	Methylamyl alcohol	129	2053
Metal powder, self-heating, n.o.s.	135	3189	Methyl amyl ketone	127	1110
Metal salts of organic compounds, flammable, n.o.s.	133	3181	N-Methylaniline	153	2294
Methacrylaldehyde, stabilized	131P	2396	Methylbenzyl (alpha) alcohol, liquid	153	2937
Methacrylic acid, stabilized	153P	2531	Methylbenzyl (alpha) alcohol, solid	153	3438
			Methyl bromide	123	1062

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Methyl bromide and Chloropicrin mixture	123	1581	Methyl ethyl ketone	127	1193
Methyl bromide and Ethylene dibromide mixture, liquid	151	1647	2-Methyl-5-ethylpyridine	153	2300
Methyl bromoacetate	155	2643	Methyl fluoride	115	2454
2-Methylbutanal	129	3371	Methyl formate	129	1243
3-Methylbutan-2-one	127	2397	2-Methylfuran	128	2301
2-Methyl-1-butene	128	2459	2-Methyl-2-heptanethiol	131	3023
2-Methyl-2-butene	128	2460	5-Methylhexan-2-one	127	2302
3-Methyl-1-butene	128	2561	Methylhydrazine	131	1244
N-Methylbutylamine	132	2945	Methyl iodide	151	2644
Methyl tert-butyl ether	127	2398	Methyl isobutyl carbinol	129	2053
Methyl butyrate	129	1237	Methyl isobutyl ketone	127	1245
Methyl chloride	115	1063	Methyl isocyanate	155P	2480
Methyl chloride and Chloropicrin mixture	119	1582	Methyl isopropenyl ketone, stabilized	127P	1246
Methyl chloride and Methylene chloride mixture	115	1912	Methyl isothiocyanate	131	2477
Methyl chloroacetate	155	2295	Methyl isovalerate	130	2400
Methyl chloroformate	155	1238	Methyl magnesium bromide in Ethyl ether	138	1928
Methyl chloromethyl ether	131	1239	Methyl mercaptan	117	1064
Methyl 2-chloropropionate	129	2933	Methyl methacrylate monomer, stabilized	129P	1247
Methylchlorosilane	119	2534	4-Methylmorpholine	132	2535
Methylcyclohexane	128	2296	N-Methylmorpholine	132	2535
Methylcyclohexanols	129	2617	Methyl nitrite	116	2455
Methylcyclohexanone	128	2297	Methyl orthosilicate	155	2606
Methylcyclopentane	128	2298	Methylpentadiene	128	2461
Methyl dichloroacetate	155	2299	2-Methylpentan-2-ol	129	2560
Methyldichloroarsine	152	1556	Methylphenyldichlorosilane	156	2437
Methyldichlorosilane	139	1242	Methyl phosphonic dichloride	137	9206
Methylene chloride	160	1593	Methyl phosphonous dichloride	135	2845
Methylene chloride and Methyl chloride mixture	115	1912	1-Methylpiperidine	132	2399
Methyl ethyl ether	115	1039	Methyl propionate	129	1248
			Methyl propyl ether	127	2612

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Methyl propyl ketone	127	1249
Methyltetrahydrofuran	127	2536
Methyl trichloroacetate	156	2533
Methyltrichlorosilane	155	1250
Methyl valeraldehyde (alpha)	130	2367
Methyl vinyl ketone, stabilized	131P	1251
Molten sulfur	133	2448
Molten sulphur	133	2448
Molybdenum pentachloride	156	2508
Monoethanolamine	153	2491
Mononitrotoluidines	153	2660
Morpholine	132	2054
Motor fuel anti-knock mixture	152	1649
Motor fuel anti-knock mixture, flammable	131	3483
Motor spirit	128	1203
Motor spirit and ethanol mixture, with more than 10% ethanol	127	3475
Muriatic acid	157	1789
Musk xylene	149	2956
Mustard	153	—
Mustard Lewisite	153	—
Naphthalene, crude	133	1334
Naphthalene, molten	133	2304
Naphthalene, refined	133	1334
Naphthylamine (alpha)	153	2077
Naphthylamine (beta), solid	153	1650
Naphthylamine (beta), solution	153	3411
Naphthylthiourea	153	1651
Naphthylurea	153	1652
Natural gas, compressed	115	1971

Natural gas, refrigerated liquid (cryogenic liquid)	115	1972
Neohexane	128	1208
Neon	120	1065
Neon, compressed	120	1065
Neon, refrigerated liquid (cryogenic liquid)	120	1913
Nickel carbonyl	131	1259
Nickel catalyst, dry	135	2881
Nickel cyanide	151	1653
Nickel nitrate	140	2725
Nickel nitrite	140	2726
Nicotine	151	1654
Nicotine compound, liquid, n.o.s.	151	3144
Nicotine compound, solid, n.o.s.	151	1655
Nicotine hydrochloride, liquid	151	1656
Nicotine hydrochloride, solid	151	3444
Nicotine hydrochloride, solution	151	1656
Nicotine preparation, liquid, n.o.s.	151	3144
Nicotine preparation, solid, n.o.s.	151	1655
Nicotine salicylate	151	1657
Nicotine sulfate, solid	151	3445
Nicotine sulfate, solution	151	1658
Nicotine sulphate, solid	151	3445
Nicotine sulphate, solution	151	1658
Nicotine tartrate	151	1659
Nitrates, inorganic, aqueous solution, n.o.s.	140	3218
Nitrates, inorganic, n.o.s.	140	1477

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Nitrating acid mixture with more than 50% nitric acid	157	1796	Nitriles, toxic, flammable, n.o.s.	131	3275
Nitrating acid mixture with not more than 50% nitric acid	157	1796	Nitriles, toxic, liquid, n.o.s.	151	3276
Nitrating acid mixture, spent, with more than 50% nitric acid	157	1826	Nitriles, toxic, solid, n.o.s.	151	3439
Nitrating acid mixture, spent, with not more than 50% nitric acid	157	1826	Nitrites, inorganic, aqueous solution, n.o.s.	140	3219
Nitric acid, other than red fuming, with more than 65% nitric acid	157	2031	Nitrites, inorganic, n.o.s.	140	2627
Nitric acid, other than red fuming, with not more than 65% nitric acid	157	2031	Nitroanilines	153	1661
Nitric acid, red fuming	157	2032	Nitroanisoles, liquid	152	2730
Nitric oxide	124	1660	Nitroanisoles, solid	152	3458
Nitric oxide, compressed	124	1660	Nitrobenzene	152	1662
Nitric oxide and Dinitrogen tetroxide mixture	124	1975	Nitrobenzenesulfonic acid	153	2305
Nitric oxide and Nitrogen dioxide mixture	124	1975	Nitrobenzenesulphonic acid	153	2305
Nitriles, flammable, poisonous, n.o.s.	131	3273	Nitrobenzotrifluorides, liquid	152	2306
Nitriles, flammable, toxic, n.o.s.	131	3273	Nitrobenzotrifluorides, solid	152	3431
Nitriles, liquid, poisonous, n.o.s.	151	3276	Nitrobromobenzenes, liquid	152	2732
Nitriles, liquid, toxic, n.o.s.	151	3276	Nitrobromobenzenes, solid	152	3459
Nitriles, poisonous, flammable, n.o.s.	131	3275	Nitrocellulose membrane filters	133	3270
Nitriles, poisonous, liquid, n.o.s.	151	3276	Nitrocellulose mixture, without pigment	133	2557
Nitriles, poisonous, solid, n.o.s.	151	3439	Nitrocellulose mixture, without plasticizer	133	2557
Nitriles, solid, poisonous, n.o.s.	151	3439	Nitrocellulose mixture, with pigment	133	2557
Nitriles, solid, toxic, n.o.s.	151	3439	Nitrocellulose mixture, with plasticizer	133	2557
			Nitrocellulose, solution, flammable	127	2059
			Nitrocellulose with alcohol, not less than 25% alcohol	113	2556
			Nitrocellulose with water, not less than 25% water	113	2555
			3-Nitro-4-chlorobenzotrifluoride	152	2307
			Nitrocresols, liquid	153	3434
			Nitrocresols, solid	153	2446

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Nitroethane	129	2842	Nitropropanes	129	2608
Nitrogen	120	1066	p-Nitrosodimethylaniline	135	1369
Nitrogen, compressed	120	1066	Nitrostarch, wetted with not less than 20% water	113	1337
Nitrogen, refrigerated liquid (cryogenic liquid)	120	1977	Nitrosyl chloride	125	1069
Nitrogen dioxide	124	1067	Nitrosylsulfuric acid, liquid	157	2308
Nitrogen dioxide and Nitric oxide mixture	124	1975	Nitrosylsulfuric acid, solid	157	3456
Nitrogen trifluoride	122	2451	Nitrosylsulphuric acid, liquid	157	2308
Nitrogen trifluoride, compressed	122	2451	Nitrosylsulphuric acid, solid	157	3456
Nitrogen trioxide	124	2421	Nitrotoluenes, liquid	152	1664
Nitroglycerin, solution in alcohol, with more than 1% but not more than 5% Nitroglycerin	127	3064	Nitrotoluenes, solid	152	3446
Nitroglycerin, solution in alcohol, with not more than 1% Nitroglycerin	127	1204	Nitrotoluidines (mono)	153	2660
Nitroglycerin mixture, desensitized, liquid, flammable, n.o.s., with not more than 30% Nitroglycerin	113	3343	Nitrous oxide	122	1070
Nitroglycerin mixture, desensitized, liquid, n.o.s., with not more than 30% Nitroglycerin	113	3357	Nitrous oxide, compressed	122	1070
Nitroglycerin mixture, desensitized, solid, n.o.s., with more than 2% but not more than 10% Nitroglycerin	113	3319	Nitrous oxide, refrigerated liquid	122	2201
Nitroguanidine, wetted with not less than 20% water	113	1336	Nitrous oxide and Carbon dioxide mixture	126	1015
Nitrohydrochloric acid	157	1798	Nitroxylenes, liquid	152	1665
Nitromethane	129	1261	Nitroxylenes, solid	152	3447
Nitronaphthalene	133	2538	Nonanes	128	1920
Nitrophenols	153	1663	Nonyltrichlorosilane	156	1799
4-Nitrophenylhydrazine, with not less than 30% water	113	3376	2,5-Norbornadiene, stabilized	128P	2251
			Octadecyltrichlorosilane	156	1800
			Octadiene	128P	2309
			Octafluorobut-2-ene	126	2422
			Octafluorocyclobutane	126	1976
			Octafluoropropane	126	2424
			Octanes	128	1262
			Octyl aldehydes	129	1191
			Octyltrichlorosilane	156	1801
			Oil, petroleum	128	1270
			Oil gas	119	1071

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Oil gas, compressed	119	1071	Organic phosphate mixed with compressed gas	123	1955
Organic peroxide type B, liquid	146	3101	Organic phosphorus compound mixed with compressed gas	123	1955
Organic peroxide type B, liquid, temperature controlled	148	3111	Organic pigments, self-heating	135	3313
Organic peroxide type B, solid	146	3102	Organoarsenic compound, liquid, n.o.s.	151	3280
Organic peroxide type B, solid, temperature controlled	148	3112	Organoarsenic compound, solid, n.o.s.	151	3465
Organic peroxide type C, liquid	146	3103	Organochlorine pesticide, liquid, flammable, poisonous	131	2762
Organic peroxide type C, liquid, temperature controlled	148	3113	Organochlorine pesticide, liquid, flammable, toxic	131	2762
Organic peroxide type C, solid	146	3104	Organochlorine pesticide, liquid, poisonous	151	2996
Organic peroxide type C, solid, temperature controlled	148	3114	Organochlorine pesticide, liquid, poisonous, flammable	131	2995
Organic peroxide type D, liquid	145	3105	Organochlorine pesticide, liquid, toxic	151	2996
Organic peroxide type D, liquid, temperature controlled	148	3115	Organochlorine pesticide, liquid, toxic, flammable	131	2995
Organic peroxide type D, solid	145	3106	Organochlorine pesticide, solid, poisonous	151	2761
Organic peroxide type D, solid, temperature controlled	148	3116	Organochlorine pesticide, solid, toxic	151	2761
Organic peroxide type E, liquid	145	3107	Organometallic compound, liquid, poisonous, n.o.s.	151	3282
Organic peroxide type E, liquid, temperature controlled	148	3117	Organometallic compound, liquid, toxic, n.o.s.	151	3282
Organic peroxide type E, solid	145	3108	Organometallic compound, poisonous, liquid, n.o.s.	151	3282
Organic peroxide type E, solid, temperature controlled	148	3118	Organometallic compound, poisonous, solid, n.o.s.	151	3467
Organic peroxide type F, liquid	145	3109	Organometallic compound, solid, poisonous, n.o.s.	151	3467
Organic peroxide type F, liquid, temperature controlled	148	3119	Organometallic compound, solid, toxic, n.o.s.	151	3467
Organic peroxide type F, solid	145	3110	Organometallic compound, toxic, liquid, n.o.s.	151	3282
Organic peroxide type F, solid, temperature controlled	148	3120			
Organic phosphate compound mixed with compressed gas	123	1955			

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Organometallic compound, toxic, solid, n.o.s.	151	3467	Organophosphorus compound, toxic, flammable, n.o.s.	131	3279
Organometallic substance, liquid, pyrophoric	135	3392	Organophosphorus compound, toxic, liquid, n.o.s.	151	3278
Organometallic substance, liquid, pyrophoric, water-reactive	135	3394	Organophosphorus compound, toxic, solid, n.o.s.	151	3464
Organometallic substance, liquid, water-reactive	135	3398	Organophosphorus pesticide, liquid, flammable, poisonous	131	2784
Organometallic substance, liquid, water-reactive, flammable	138	3399	Organophosphorus pesticide, liquid, flammable, toxic	131	2784
Organometallic substance, solid, pyrophoric	135	3391	Organophosphorus pesticide, liquid, poisonous	152	3018
Organometallic substance, solid, pyrophoric, water-reactive	135	3393	Organophosphorus pesticide, liquid, poisonous, flammable	131	3017
Organometallic substance, solid, self-heating	138	3400	Organophosphorus pesticide, liquid, toxic	152	3018
Organometallic substance, solid, water-reactive	135	3395	Organophosphorus pesticide, liquid, toxic, flammable	131	3017
Organometallic substance, solid, water-reactive, flammable	138	3396	Organophosphorus pesticide, solid, poisonous	152	2783
Organometallic substance, solid, water-reactive, self-heating	138	3397	Organophosphorus pesticide, solid, toxic	152	2783
Organophosphorus compound, liquid, poisonous, n.o.s.	151	3278	Organotin compound, liquid, n.o.s.	153	2788
Organophosphorus compound, liquid, toxic, n.o.s.	151	3278	Organotin compound, solid, n.o.s.	153	3146
Organophosphorus compound, poisonous, flammable, n.o.s.	131	3279	Organotin pesticide, liquid, flammable, poisonous	131	2787
Organophosphorus compound, poisonous, liquid, n.o.s.	151	3278	Organotin pesticide, liquid, flammable, toxic	131	2787
Organophosphorus compound, poisonous, solid, n.o.s.	151	3464	Organotin pesticide, liquid, poisonous	153	3020
Organophosphorus compound, solid, poisonous, n.o.s.	151	3464	Organotin pesticide, liquid, poisonous, flammable	131	3019
Organophosphorus compound, solid, toxic, n.o.s.	151	3464	Organotin pesticide, liquid, toxic	153	3020
			Organotin pesticide, liquid, toxic, flammable	131	3019
			Organotin pesticide, solid, poisonous	153	2786

Name of Material	Guide ID		Name of Material	Guide ID	
	No.	No.		No.	No.
Organotin pesticide, solid, toxic	153	2786	Packagings discarded, empty, uncleaned	171	3509
Osmium tetroxide	154	2471	Paint (corrosive)	153	3066
Other regulated substances, liquid, n.o.s.	171	3082	Paint, corrosive, flammable	132	3470
Other regulated substances, solid, n.o.s.	171	3077	Paint (flammable)	128	1263
Oxidizing liquid, corrosive, n.o.s.	140	3098	Paint, flammable, corrosive	132	3469
Oxidizing liquid, n.o.s.	140	3139	Paint related material (corrosive)	153	3066
Oxidizing liquid, poisonous, n.o.s.	142	3099	Paint related material, corrosive, flammable	132	3470
Oxidizing liquid, toxic, n.o.s.	142	3099	Paint related material (flammable)	128	1263
Oxidizing solid, corrosive, n.o.s.	140	3085	Paint related material, flammable, corrosive	132	3469
Oxidizing solid, flammable, n.o.s.	140	3137	Paper, unsaturated oil treated	133	1379
Oxidizing solid, n.o.s.	140	1479	Paraformaldehyde	133	2213
Oxidizing solid, poisonous, n.o.s.	141	3087	Paraldehyde	129	1264
Oxidizing solid, self-heating, n.o.s.	135	3100	Parathion and compressed gas mixture	123	1967
Oxidizing solid, toxic, n.o.s.	141	3087	PCB	171	2315
Oxidizing solid, water-reactive, n.o.s.	144	3121	PD	152	—
Oxygen	122	1072	Pentaborane	135	1380
Oxygen, compressed	122	1072	Pentachloroethane	151	1669
Oxygen, refrigerated liquid (cryogenic liquid)	122	1073	Pentachlorophenol	154	3155
Oxygen and Carbon dioxide mixture, compressed	122	1014	Pentaerythrite tetranitrate mixture, desensitized, solid, n.o.s., with more than 10% but not more than 20% PETN	113	3344
Oxygen difluoride	124	2190	Pentaerythritol tetranitrate mixture, desensitized, solid, n.o.s., with more than 10% but not more than 20% PETN	113	3344
Oxygen difluoride, compressed	124	2190	Pentafluoroethane	126	3220
Oxygen generator, chemical	140	3356	Pentafluoroethane and Ethylene oxide mixture, with not more than 7.9% Ethylene oxide	126	3298
Oxygen generator, chemical, spent	140	3356	Pentamethylheptane	128	2286

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Pentane-2,4-dione	131	2310	Pesticide, liquid, flammable, poisonous, n.o.s.	131	3021
Pentanes	128	1265	Pesticide, liquid, flammable, toxic, n.o.s.	131	3021
Pentanol	129	1105	Pesticide, liquid, poisonous, flammable, n.o.s.	131	2903
1-Pentene	128	1108	Pesticide, liquid, poisonous, n.o.s.	151	2902
1-Pentol	153P	2705	Pesticide, liquid, toxic, flammable, n.o.s.	131	2903
Perchlorates, inorganic, aqueous solution, n.o.s.	140	3211	Pesticide, liquid, toxic, n.o.s.	151	2902
Perchlorates, inorganic, n.o.s.	140	1481	Pesticide, solid, poisonous, n.o.s.	151	2588
Perchloric acid, with more than 50% but not more than 72% acid	143	1873	Pesticide, solid, toxic, n.o.s.	151	2588
Perchloric acid, with not more than 50% acid	157	1802	PETN mixture, desensitized, solid, n.o.s., with more than 10% but not more than 20% PETN	113	3344
Perchloroethylene	160	1897	Petrol	128	1203
Perchloromethyl mercaptan	157	1670	Petrol and ethanol mixture, with more than 10% ethanol	127	3475
Perchloryl fluoride	124	3083	Petroleum crude oil	128	1267
Perfluoro(ethyl vinyl ether)	115	3154	Petroleum distillates, n.o.s.	128	1268
Perfluoro(methyl vinyl ether)	115	3153	Petroleum gases, liquefied	115	1075
Perfumery products, with flammable solvents	127	1266	Petroleum oil	128	1270
Permanganates, inorganic, aqueous solution, n.o.s.	140	3214	Petroleum products, n.o.s.	128	1268
Permanganates, inorganic, n.o.s.	140	1482	Petroleum sour crude oil, flammable, poisonous	131	3494
Peroxides, inorganic, n.o.s.	140	1483	Petroleum sour crude oil, flammable, toxic	131	3494
Peroxyacetic acid and hydrogen peroxide mixture, with acid(s), water and not more than 5% Peroxyacetic acid, stabilized	140	3149	Phenacyl bromide	153	2645
Persulfates, inorganic, aqueous solution, n.o.s.	140	3216	Phenetidines	153	2311
Persulfates, inorganic, n.o.s.	140	3215	Phenol, molten	153	2312
Persulphates, inorganic, aqueous solution, n.o.s.	140	3216	Phenol, solid	153	1671
Persulphates, inorganic, n.o.s.	140	3215	Phenol solution	153	2821
			Phenolates, liquid	154	2904
			Phenolates, solid	154	2905

Name of Material	Guide ID		Name of Material	Guide ID	
	No.	No.		No.	No.
Phenolsulfonic acid, liquid	153	1803	Phenylphosphorus thiodichloride	137	2799
Phenolsulphonic acid, liquid	153	1803	Phenyltrichlorosilane	156	1804
Phenoxyacetic acid derivative pesticide, liquid, flammable, poisonous	131	3346	Phenyl urea pesticide, liquid, poisonous	151	3002
Phenoxyacetic acid derivative pesticide, liquid, flammable, toxic	131	3346	Phenyl urea pesticide, liquid, toxic	151	3002
Phenoxyacetic acid derivative pesticide, liquid, poisonous	153	3348	Phosgene	125	1076
Phenoxyacetic acid derivative pesticide, liquid, poisonous, flammable	131	3347	9-Phosphabicyclononanes	135	2940
Phenoxyacetic acid derivative pesticide, liquid, toxic	153	3348	Phosphine	119	2199
Phenoxyacetic acid derivative pesticide, liquid, toxic, flammable	131	3347	Phosphine, adsorbed	173	3525
Phenoxyacetic acid derivative pesticide, solid, poisonous	153	3345	Phosphoric acid, solid	154	3453
Phenoxyacetic acid derivative pesticide, solid, toxic	153	3345	Phosphoric acid, solution	154	1805
Phenylacetonitrile, liquid	152	2470	Phosphorous acid	154	2834
Phenylacetyl chloride	156	2577	Phosphorus, amorphous	133	1338
Phenylcarbylamine chloride	151	1672	Phosphorus, white, dry or under water or in solution	136	1381
Phenyl chloroformate	156	2746	Phosphorus, white, molten	136	2447
Phenylenediamines	153	1673	Phosphorus, yellow, dry or under water or in solution	136	1381
Phenylhydrazine	153	2572	Phosphorus heptasulfide, free from yellow and white Phosphorus	139	1339
Phenyl isocyanate	155	2487	Phosphorus heptasulphide, free from yellow and white Phosphorus	139	1339
Phenyl mercaptan	131	2337	Phosphorus oxybromide, molten	137	2576
Phenylmercuric acetate	151	1674	Phosphorus oxybromide, solid	137	1939
Phenylmercuric compound, n.o.s.	151	2026	Phosphorus oxychloride	137	1810
Phenylmercuric hydroxide	151	1894	Phosphorus pentabromide	137	2691
Phenylmercuric nitrate	151	1895	Phosphorus pentachloride	137	1806
Phenylphosphorus dichloride	137	2798	Phosphorus pentafluoride	125	2198
			Phosphorus pentafluoride, adsorbed	173	3524
			Phosphorus pentafluoride, compressed	125	2198

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Phosphorus pentasulfide, free from yellow and white Phosphorus **139** 1340

Phosphorus pentasulphide, free from yellow and white Phosphorus **139** 1340

Phosphorus pentoxide **137** 1807

Phosphorus sesquisulfide, free from yellow and white Phosphorus **139** 1341

Phosphorus sesquisulphide, free from yellow and white Phosphorus **139** 1341

Phosphorus tribromide **137** 1808

Phosphorus trichloride **137** 1809

Phosphorus trioxide **157** 2578

Phosphorus trisulfide, free from yellow and white Phosphorus **139** 1343

Phosphorus trisulphide, free from yellow and white Phosphorus **139** 1343

Phthalic anhydride **156** 2214

Picolines **129** 2313

Picric acid, wetted with not less than 10% water **113** 3364

Picric acid, wetted with not less than 30% water **113** 1344

Picrite, wetted with not less than 20% water **113** 1336

Picryl chloride, wetted with not less than 10% water **113** 3365

Pinene (alpha) **128** 2368

Pine oil **129** 1272

Piperazine **153** 2579

Piperidine **132** 2401

Plastic molding compound **171** 3314

Plastics moulding compound **171** 3314

Plastics, nitrocellulose-based, self-heating, n.o.s. **135** 2006

Poisonous by inhalation liquid, corrosive, flammable, n.o.s. (Inhalation Hazard Zone A) **131** 3492

Poisonous by inhalation liquid, corrosive, flammable, n.o.s. (Inhalation Hazard Zone B) **131** 3493

Poisonous by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone A) **154** 3389

Poisonous by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone B) **154** 3390

Poisonous by inhalation liquid, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A) **131** 3488

Poisonous by inhalation liquid, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B) **131** 3489

Poisonous by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone A) **131** 3383

Poisonous by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone B) **131** 3384

Poisonous by inhalation liquid, n.o.s. (Inhalation Hazard Zone A) **151** 3381

Poisonous by inhalation liquid, n.o.s. (Inhalation Hazard Zone B) **151** 3382

Poisonous by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A) **142** 3387

Poisonous by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B) **142** 3388

Poisonous by inhalation liquid, water-reactive, flammable, n.o.s. (Inhalation Hazard Zone A) **155** 3490

Name of Material	Guide ID No.	ID No.	Name of Material	Guide ID No.	ID No.
Poisonous by inhalation liquid, water-reactive, flammable, n.o.s. (Inhalation Hazard Zone B)	155	3491	Polyamines, liquid, corrosive, flammable, n.o.s.	132	2734
Poisonous by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)	139	3385	Polyamines, liquid, corrosive, n.o.s.	153	2735
Poisonous by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)	139	3386	Polyamines, solid, corrosive, n.o.s.	154	3259
Poisonous liquid, corrosive, inorganic, n.o.s.	154	3289	Polychlorinated biphenyls, liquid	171	2315
Poisonous liquid, corrosive, organic, n.o.s.	154	2927	Polychlorinated biphenyls, solid	171	3432
Poisonous liquid, flammable, organic, n.o.s.	131	2929	Polyester resin kit, liquid base material	128	3269
Poisonous liquid, inorganic, n.o.s.	151	3287	Polyester resin kit, solid base material	128P	3527
Poisonous liquid, organic, n.o.s.	153	2810	Polyhalogenated biphenyls, liquid	171	3151
Poisonous liquid, oxidizing, n.o.s.	142	3122	Polyhalogenated biphenyls, solid	171	3152
Poisonous liquid, water-reactive, n.o.s.	139	3123	Polyhalogenated terphenyls, liquid	171	3151
Poisonous solid, corrosive, inorganic, n.o.s.	154	3290	Polyhalogenated terphenyls, solid	171	3152
Poisonous solid, corrosive, organic, n.o.s.	154	2928	Polymeric beads, expandable	171	2211
Poisonous solid, flammable, organic, n.o.s.	134	2930	Polymerizing substance, liquid, stabilized, n.o.s.	149P	3532
Poisonous solid, inorganic, n.o.s.	151	3288	Polymerizing substance, liquid, temperature controlled, n.o.s.	150P	3534
Poisonous solid, organic, n.o.s.	154	2811	Polymerizing substance, solid, stabilized, n.o.s.	149P	3531
Poisonous solid, oxidizing, n.o.s.	141	3086	Polymerizing substance, solid, temperature controlled, n.o.s.	150P	3533
Poisonous solid, self-heating, n.o.s.	136	3124	Potassium	138	2257
Poisonous solid, water-reactive, n.o.s.	139	3125	Potassium, metal alloys, liquid	138	1420
Polyamines, flammable, corrosive, n.o.s.	132	2733	Potassium, metal alloys, solid	138	3403
			Potassium arsenate	151	1677
			Potassium arsenite	154	1678
			Potassium borohydride	138	1870

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Potassium bromate	140	1484	Potassium persulphate	140	1492
Potassium chlorate	140	1485	Potassium phosphide	139	2012
Potassium chlorate, aqueous solution	140	2427	Potassium sodium alloys, liquid	138	1422
Potassium cuprocyanide	157	1679	Potassium sodium alloys, solid	138	3404
Potassium cyanide, solid	157	1680	Potassium sulfide, anhydrous	135	1382
Potassium cyanide, solution	157	3413	Potassium sulfide, hydrated, with not less than 30% water of crystallization	153	1847
Potassium dithionite	135	1929	Potassium sulfide, with less than 30% water of crystallization	135	1382
Potassium fluoride, solid	154	1812	Potassium sulphide, anhydrous	135	1382
Potassium fluoride, solution	154	3422	Potassium sulphide, hydrated, with not less than 30% water of crystallization	153	1847
Potassium fluoroacetate	151	2628	Potassium sulphide, with less than 30% water of crystallization	135	1382
Potassium fluorosilicate	151	2655	Potassium superoxide	143	2466
Potassium hydrogen difluoride, solid	154	1811	Printing ink, flammable	129	1210
Potassium hydrogen difluoride, solution	154	3421	Printing ink related material, flammable	129	1210
Potassium hydrogen sulfate	154	2509	Propadiene, stabilized	116P	2200
Potassium hydrogen sulphate	154	2509	Propadiene and Methylacetylene mixture, stabilized	116P	1060
Potassium hydrosulfite	135	1929	Propane	115	1075
Potassium hydrosulphite	135	1929	Propane	115	1978
Potassium hydroxide, solid	154	1813	Propane-Ethane mixture, refrigerated liquid	115	1961
Potassium hydroxide, solution	154	1814	Propanethiols	130	2402
Potassium metavanadate	151	2864	n-Propanol	129	1274
Potassium monoxide	154	2033	Propionaldehyde	129P	1275
Potassium nitrate	140	1486	Propionic acid	153	1848
Potassium nitrate and Sodium nitrate mixture	140	1499	Propionic acid, with not less than 10% and less than 90% acid	153	1848
Potassium nitrate and Sodium nitrite mixture	140	1487			
Potassium nitrite	140	1488			
Potassium perchlorate	140	1489			
Potassium permanganate	140	1490			
Potassium peroxide	144	1491			
Potassium persulfate	140	1492			

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Propionic acid, with not less than 90% acid	153	3463	Pyrethroid pesticide, liquid, poisonous	151	3352
Propionic anhydride	156	2496	Pyrethroid pesticide, liquid, poisonous, flammable	131	3351
Propionitrile	131	2404	Pyrethroid pesticide, liquid, toxic	151	3352
Propionyl chloride	132	1815	Pyrethroid pesticide, liquid, toxic, flammable	131	3351
n-Propyl acetate	129	1276	Pyrethroid pesticide, solid, poisonous	151	3349
Propyl alcohol, normal	129	1274	Pyrethroid pesticide, solid, toxic	151	3349
Propylamine	132	1277	Pyridine	129	1282
n-Propyl benzene	128	2364	Pyrophoric alloy, n.o.s.	135	1383
Propyl chloride	129	1278	Pyrophoric liquid, inorganic, n.o.s.	135	3194
n-Propyl chloroformate	155	2740	Pyrophoric liquid, organic, n.o.s.	135	2845
Propylene	115	1075	Pyrophoric metal, n.o.s.	135	1383
Propylene	115	1077	Pyrophoric solid, inorganic, n.o.s.	135	3200
Propylene, Ethylene and Acetylene in mixture, refrigerated liquid containing at least 71.5% Ethylene with not more than 22.5% Acetylene and not more than 6% Propylene	115	3138	Pyrophoric solid, organic, n.o.s.	135	2846
Propylene chlorohydrin	131	2611	Pyrosulfuryl chloride	137	1817
1,2-Propylenediamine	132	2258	Pyrosulphuryl chloride	137	1817
Propyleneimine, stabilized	131P	1921	Pyrrolidine	132	1922
Propylene oxide	127P	1280	Quinoline	154	2656
Propylene oxide and Ethylene oxide mixture, with not more than 30% Ethylene oxide	131P	2983	Radioactive material, excepted package, articles	161	2911
Propylene tetramer	128	2850	Radioactive material, excepted package, articles manufactured from depleted Uranium	161	2909
Propyl formates	129	1281	Radioactive material, excepted package, articles manufactured from natural Thorium	161	2909
n-Propyl isocyanate	155P	2482			
n-Propyl nitrate	128	1865			
Propyltrichlorosilane	155	1816			
Pyrethroid pesticide, liquid, flammable, poisonous	131	3350			
Pyrethroid pesticide, liquid, flammable, toxic	131	3350			

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Radioactive material, excepted package, articles manufactured from natural Uranium	161	2909	Radioactive material, transported under special arrangement, non fissile or fissile-excepted	163	2919
Radioactive material, excepted package, empty packaging	161	2908	Radioactive material, Type A package, fissile, non-special form	165	3327
Radioactive material, excepted package, instruments	161	2911	Radioactive material, Type A package, non-special form, non fissile or fissile-excepted	163	2915
Radioactive material, excepted package, limited quantity of material	161	2910	Radioactive material, Type A package, special form, fissile	165	3333
Radioactive material, low specific activity (LSA-I), non fissile or fissile-excepted	162	2912	Radioactive material, Type A package, special form, non fissile or fissile-excepted	164	3332
Radioactive material, low specific activity (LSA-II), fissile	165	3324	Radioactive material, Type B(M) package, fissile	165	3329
Radioactive material, low specific activity (LSA-II), non fissile or fissile-excepted	162	3321	Radioactive material, Type B(M) package, non fissile or fissile-excepted	163	2917
Radioactive material, low specific activity (LSA-III), fissile	165	3325	Radioactive material, Type B(U) package, fissile	165	3328
Radioactive material, low specific activity (LSA-III), non fissile or fissile-excepted	162	3322	Radioactive material, Type B(U) package, non fissile or fissile-excepted	163	2916
Radioactive material, surface contaminated objects (SCO-I), fissile	165	3326	Radioactive material, Type C package, fissile	165	3330
Radioactive material, surface contaminated objects (SCO-I), non fissile or fissile-excepted	162	2913	Radioactive material, Type C package, non fissile or fissile excepted	163	3323
Radioactive material, surface contaminated objects (SCO-II), fissile	165	3326	Radioactive material, Uranium hexafluoride, fissile	166	2977
Radioactive material, surface contaminated objects (SCO-II), non fissile or fissile-excepted	162	2913	Radioactive material, Uranium hexafluoride, non fissile or fissile-excepted	166	2978
Radioactive material, transported under special arrangement, fissile	165	3331	Rags, oily	133	1856

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Receptacles, small, containing gas	115	2037	Refrigerant gas R-218	126	2424
Red phosphorus	133	1338	Refrigerant gas R-227	126	3296
Refrigerant gas, n.o.s.	126	1078	Refrigerant gas R-404A	126	3337
Refrigerant gases, n.o.s. (flammable)	115	1954	Refrigerant gas R-407A	126	3338
Refrigerant gas R-12	126	1028	Refrigerant gas R-407B	126	3339
Refrigerant gas R-12B1	126	1974	Refrigerant gas R-407C	126	3340
Refrigerant gas R-12B2	171	1941	Refrigerant gas R-500	126	2602
Refrigerant gas R-13	126	1022	Refrigerant gas R-502	126	1973
Refrigerant gas R-13B1	126	1009	Refrigerant gas R-503	126	2599
Refrigerant gas R-14	126	1982	Refrigerant gas R-1113	119P	1082
Refrigerant gas R-14, compressed	126	1982	Refrigerant gas R-1132a	116P	1959
Refrigerant gas R-21	126	1029	Refrigerant gas R-1216	126	1858
Refrigerant gas R-22	126	1018	Refrigerant gas R-1318	126	2422
Refrigerant gas R-23	126	1984	Refrigerant gas RC-318	126	1976
Refrigerant gas R-32	115	3252	Refrigerating machines, containing Ammonia solutions (UN2672)	126	2857
Refrigerant gas R-40	115	1063	Refrigerating machines, containing flammable, non-poisonous, liquefied gas	115	3358
Refrigerant gas R-41	115	2454	Refrigerating machines, containing flammable, non-toxic, liquefied gas	115	3358
Refrigerant gas R-114	126	1958	Refrigerating machines, containing non-flammable, non-poisonous gases	126	2857
Refrigerant gas R-115	126	1020	Refrigerating machines, containing non-flammable, non-toxic gases	126	2857
Refrigerant gas R-116	126	2193	Regulated medical waste, n.o.s.	158	3291
Refrigerant gas R-116, compressed	126	2193	Resin solution	127	1866
Refrigerant gas R-124	126	1021	Resorcinol	153	2876
Refrigerant gas R-125	126	3220	Rosin oil	127	1286
Refrigerant gas R-133a	126	1983	Rubber scrap, powdered or granulated	133	1345
Refrigerant gas R-134a	126	3159			
Refrigerant gas R-142b	115	2517			
Refrigerant gas R-143a	115	2035			
Refrigerant gas R-152a	115	1030			
Refrigerant gas R-161	115	2453			

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Rubber shoddy, powdered or granulated	133	1345	Self-heating liquid, poisonous, inorganic, n.o.s.	136	3187
Rubber solution	127	1287	Self-heating liquid, poisonous, organic, n.o.s.	136	3184
Rubidium	138	1423	Self-heating liquid, toxic, inorganic, n.o.s.	136	3187
Rubidium hydroxide, solid	154	2678	Self-heating liquid, toxic, organic, n.o.s.	136	3184
Rubidium hydroxide, solution	154	2677	Self-heating solid, corrosive, inorganic, n.o.s.	136	3192
SA	119	—	Self-heating solid, corrosive, organic, n.o.s.	136	3126
Safety devices	171	3268	Self-heating solid, inorganic, n.o.s.	135	3190
Sarin	153	—	Self-heating solid, organic, n.o.s.	135	3088
Seat-belt pre-tensioners	171	3268	Self-heating solid, oxidizing, n.o.s.	135	3127
Seed cake, with more than 1.5% oil and not more than 11% moisture	135	1386	Self-heating solid, poisonous, inorganic, n.o.s.	136	3191
Seed cake, with not more than 1.5% oil and not more than 11% moisture	135	2217	Self-heating solid, poisonous, organic, n.o.s.	136	3128
Selenates	151	2630	Self-heating solid, toxic, inorganic, n.o.s.	136	3191
Selenic acid	154	1905	Self-heating solid, toxic, organic, n.o.s.	136	3128
Selenites	151	2630	Self-heating solid, toxic, inorganic, n.o.s.	136	3128
Selenium compound, liquid, n.o.s.	151	3440	Self-reactive liquid type B	149	3221
Selenium compound, solid, n.o.s.	151	3283	Self-reactive liquid type B, temperature controlled	150	3231
Selenium disulfide	153	2657	Self-reactive liquid type C	149	3223
Selenium disulphide	153	2657	Self-reactive liquid type C, temperature controlled	150	3233
Selenium hexafluoride	125	2194	Self-reactive liquid type D	149	3225
Selenium oxychloride	157	2879	Self-reactive liquid type D, temperature controlled	150	3235
Self-defense spray, non-pressurized	171	3334	Self-reactive liquid type E	149	3227
Self-heating liquid, corrosive, inorganic, n.o.s.	136	3188	Self-reactive liquid type E, temperature controlled	150	3237
Self-heating liquid, corrosive, organic, n.o.s.	136	3185	Self-reactive liquid type F	149	3229
Self-heating liquid, inorganic, n.o.s.	135	3186			
Self-heating liquid, organic, n.o.s.	135	3183			

Name of Material	Guide ID		Name of Material	Guide ID	
	No.	No.		No.	No.
Self-reactive liquid type F, temperature controlled	150	3239	Sodium	138	1428
Self-reactive solid type B	149	3222	Sodium aluminate, solid	154	2812
Self-reactive solid type B, temperature controlled	150	3232	Sodium aluminate, solution	154	1819
Self-reactive solid type C	149	3224	Sodium aluminum hydride	138	2835
Self-reactive solid type C, temperature controlled	150	3234	Sodium ammonium vanadate	154	2863
Self-reactive solid type D	149	3226	Sodium arsanilate	154	2473
Self-reactive solid type D, temperature controlled	150	3236	Sodium arsenate	151	1685
Self-reactive solid type E	149	3228	Sodium arsenite, aqueous solution	154	1686
Self-reactive solid type E, temperature controlled	150	3238	Sodium arsenite, solid	151	2027
Self-reactive solid type F	149	3230	Sodium azide	153	1687
Self-reactive solid type F, temperature controlled	150	3240	Sodium, batteries containing	138	3292
Shale oil	128	1288	Sodium bisulfate, solution	154	2837
Silane	116	2203	Sodium bisulphate, solution	154	2837
Silane, compressed	116	2203	Sodium borohydride	138	1426
Silicon powder, amorphous	170	1346	Sodium borohydride and Sodium hydroxide solution, with not more than 12% Sodium borohydride and not more than 40% Sodium hydroxide	157	3320
Silicon tetrachloride	157	1818	Sodium bromate	140	1494
Silicon tetrafluoride	125	1859	Sodium cacodylate	152	1688
Silicon tetrafluoride, adsorbed	173	3521	Sodium carbonate peroxyhydrate	140	3378
Silicon tetrafluoride, compressed	125	1859	Sodium chlorate	140	1495
Silver arsenite	151	1683	Sodium chlorate, aqueous solution	140	2428
Silver cyanide	151	1684	Sodium chlorite	143	1496
Silver nitrate	140	1493	Sodium chloroacetate	151	2659
Silver picrate, wetted with not less than 30% water	113	1347	Sodium cuprocyanide, solid	157	2316
Sludge acid	153	1906	Sodium cuprocyanide, solution	157	2317
Smokeless powder for small arms	133	3178	Sodium cyanide, solid	157	1689
Soda lime, with more than 4% Sodium hydroxide	154	1907	Sodium cyanide, solution	157	3414
			Sodium dichloroisocyanurate	140	2465

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Sodium dichloro-s-triazinetriene	140	2465	Sodium methylate, solution in alcohol	132	1289
Sodium dinitro-o-cresolate, wetted with not less than 10% water	113	3369	Sodium monoxide	157	1825
Sodium dinitro-o-cresolate, wetted with not less than 15% water	113	1348	Sodium nitrate	140	1498
Sodium dithionite	135	1384	Sodium nitrate and Potassium nitrate mixture	140	1499
Sodium fluoride, solid	154	1690	Sodium nitrite	141	1500
Sodium fluoride, solution	154	3415	Sodium nitrite and Potassium nitrate mixture	140	1487
Sodium fluoroacetate	151	2629	Sodium pentachlorophenate	154	2567
Sodium fluorosilicate	154	2674	Sodium perborate monohydrate	140	3377
Sodium hydride	138	1427	Sodium perchlorate	140	1502
Sodium hydrogendifluoride	154	2439	Sodium permanganate	140	1503
Sodium hydrosulfide, hydrated, with not less than 25% water of crystallization	154	2949	Sodium peroxide	144	1504
Sodium hydrosulfide, with less than 25% water of crystallization	135	2318	Sodium peroxoborate, anhydrous	140	3247
Sodium hydrosulfide, with not less than 25% water of crystallization	154	2949	Sodium persulfate	140	1505
Sodium hydrosulfite	135	1384	Sodium persulphate	140	1505
Sodium hydrosulphide, hydrated, with not less than 25% water of crystallization	154	2949	Sodium phosphide	139	1432
Sodium hydrosulphide, with less than 25% water of crystallization	135	2318	Sodium picramate, wetted with not less than 20% water	113	1349
Sodium hydrosulphide, with not less than 25% water of crystallization	154	2949	Sodium potassium alloys, liquid	138	1422
Sodium hydrosulphite	135	1384	Sodium potassium alloys, solid	138	3404
Sodium hydroxide, solid	154	1823	Sodium sulfide, anhydrous	135	1385
Sodium hydroxide, solution	154	1824	Sodium sulfide, hydrated, with not less than 30% water	153	1849
Sodium hypochlorite	154	1791	Sodium sulfide, with less than 30% water of crystallization	135	1385
Sodium methylate, dry	138	1431	Sodium sulphide, anhydrous	135	1385
			Sodium sulphide, hydrated, with not less than 30% water	153	1849
			Sodium sulphide, with less than 30% water of crystallization	135	1385
			Sodium superoxide	143	2547

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Solids containing corrosive liquid, n.o.s.	154	3244	Substituted nitrophenol pesticide, liquid, toxic, flammable	131	3013
Solids containing flammable liquid, n.o.s.	133	3175	Substituted nitrophenol pesticide, solid, poisonous	153	2779
Solids containing poisonous liquid, n.o.s.	151	3243	Substituted nitrophenol pesticide, solid, toxic	153	2779
Solids containing toxic liquid, n.o.s.	151	3243	Sulfamic acid	154	2967
Soman	153	—	Sulfur	133	1350
Stannic chloride, anhydrous	137	1827	Sulfur, molten	133	2448
Stannic chloride, pentahydrate	154	2440	Sulfur chlorides	137	1828
Stannic phosphides	139	1433	Sulfur dioxide	125	1079
Stibine	119	2676	Sulfur hexafluoride	126	1080
Straw, wet, damp or contaminated with oil	133	1327	Sulfuric acid	137	1830
Strontium arsenite	151	1691	Sulfuric acid, fuming	137	1831
Strontium chlorate	143	1506	Sulfuric acid, spent	137	1832
Strontium nitrate	140	1507	Sulfuric acid, with more than 51% acid	137	1830
Strontium perchlorate	140	1508	Sulfuric acid, with not more than 51% acid	157	2796
Strontium peroxide	143	1509	Sulfuric acid and Hydrofluoric acid mixture	157	1786
Strontium phosphide	139	2013	Sulfurous acid	154	1833
Strychnine	151	1692	Sulfur tetrafluoride	125	2418
Strychnine salts	151	1692	Sulfur trioxide, stabilized	137	1829
Styrene monomer, stabilized	128P	2055	Sulfuryl chloride	137	1834
Substituted nitrophenol pesticide, liquid, flammable, poisonous	131	2780	Sulfuryl fluoride	123	2191
Substituted nitrophenol pesticide, liquid, flammable, toxic	131	2780	Sulphamic acid	154	2967
Substituted nitrophenol pesticide, liquid, poisonous	153	3014	Sulphur	133	1350
Substituted nitrophenol pesticide, liquid, poisonous, flammable	131	3013	Sulphur, molten	133	2448
Substituted nitrophenol pesticide, liquid, toxic	153	3014	Sulphur chlorides	137	1828
			Sulphur dioxide	125	1079
			Sulphur hexafluoride	126	1080
			Sulphuric acid	137	1830
			Sulphuric acid, fuming	137	1831

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Sulphuric acid, spent	137	1832	Tetrafluoroethylene, stabilized	116P	1081
Sulphuric acid, with more than 51% acid	137	1830	Tetrafluoromethane	126	1982
Sulphuric acid, with not more than 51% acid	157	2796	Tetrafluoromethane, compressed	126	1982
Sulphuric acid and Hydrofluoric acid mixture	157	1786	1,2,3,6-Tetrahydrobenzaldehyde	129	2498
Sulphurous acid	154	1833	Tetrahydrofuran	127	2056
Sulphur tetrafluoride	125	2418	Tetrahydrofurfurylamine	129	2943
Sulphur trioxide, stabilized	137	1829	Tetrahydrophthalic anhydrides	156	2698
Sulphuryl chloride	137	1834	1,2,3,6-Tetrahydropyridine	129	2410
Sulphuryl fluoride	123	2191	Tetrahydrothiophene	130	2412
Tabun	153	—	Tetramethylammonium hydroxide, solid	153	3423
Tars, liquid	130	1999	Tetramethylammonium hydroxide, solution	153	1835
Tear gas candles	159	1700	Tetramethylsilane	130	2749
Tear gas devices	159	1693	Tetranitromethane	143	1510
Tear gas grenades	159	1700	Tetrapropyl orthotitanate	128	2413
Tear gas substance, liquid, n.o.s.	159	1693	Textile waste, wet	133	1857
Tear gas substance, solid, n.o.s.	159	3448	Thallium chlorate	141	2573
Tellurium compound, n.o.s.	151	3284	Thallium compound, n.o.s.	151	1707
Tellurium hexafluoride	125	2195	Thallium nitrate	141	2727
Terpene hydrocarbons, n.o.s.	128	2319	4-Thiapentanal	152	2785
Terpinolene	128	2541	Thickened GD	153	—
Tetrabromoethane	159	2504	Thioacetic acid	129	2436
1,1,2,2-Tetrachloroethane	151	1702	Thiocarbamate pesticide, liquid, flammable, poisonous	131	2772
Tetrachloroethylene	160	1897	Thiocarbamate pesticide, liquid, flammable, toxic	131	2772
Tetraethyl dithiopyrophosphate	153	1704	Thiocarbamate pesticide, liquid, poisonous	151	3006
Tetraethylenepentamine	153	2320	Thiocarbamate pesticide, liquid, poisonous, flammable	131	3005
Tetraethyl silicate	129	1292	Thiocarbamate pesticide, liquid, toxic	151	3006
1,1,1,2-Tetrafluoroethane	126	3159			
Tetrafluoroethane and Ethylene oxide mixture, with not more than 5.6% Ethylene oxide	126	3299			

Name of Material	Guide ID		Name of Material	Guide ID	
	No.	No.		No.	No.
Thiocarbamate pesticide, liquid, toxic, flammable	131	3005	2,4-Toluenediamine, solution	151	3418
Thiocarbamate pesticide, solid, poisonous	151	2771	Toluene diisocyanate	156	2078
Thiocarbamate pesticide, solid, toxic	151	2771	Toluidines, liquid	153	1708
Thioglycol	153	2966	Toluidines, solid	153	3451
Thioglycolic acid	153	1940	2,4-Toluylenediamine, solid	151	1709
Thiolactic acid	153	2936	2,4-Toluylenediamine, solution	151	3418
Thionyl chloride	137	1836	Toxic by inhalation liquid, corrosive, flammable, n.o.s. (Inhalation Hazard Zone A)	131	3492
Thiophene	130	2414	Toxic by inhalation liquid, corrosive, flammable, n.o.s. (Inhalation Hazard Zone B)	131	3493
Thiophosgene	157	2474	Toxic by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone A)	154	3389
Thiophosphoryl chloride	157	1837	Toxic by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone B)	154	3390
Thiourea dioxide	135	3341	Toxic by inhalation liquid, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	131	3488
Tinctures, medicinal	127	1293	Toxic by inhalation liquid, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	131	3489
Tin tetrachloride	137	1827	Toxic by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone A)	131	3383
Titanium disulfide	135	3174	Toxic by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone B)	131	3384
Titanium disulphide	135	3174	Toxic by inhalation liquid, n.o.s. (Inhalation Hazard Zone A)	151	3381
Titanium hydride	170	1871	Toxic by inhalation liquid, n.o.s. (Inhalation Hazard Zone B)	151	3382
Titanium powder, dry	135	2546	Toxic by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)	142	3387
Titanium powder, wetted with not less than 25% water	170	1352	Toxic by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)	142	3388
Titanium sponge granules	170	2878	Toluene	130	1294
Titanium sponge powders	170	2878	2,4-Toluenediamine, solid	151	1709
Titanium tetrachloride	137	1838			
Titanium trichloride, pyrophoric	135	2441			
Titanium trichloride mixture	157	2869			
Titanium trichloride mixture, pyrophoric	135	2441			
TNT, wetted with not less than 10% water	113	3366			
TNT, wetted with not less than 30% water	113	1356			

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Toxic by inhalation liquid, water-reactive, flammable, n.o.s. (Inhalation Hazard Zone A)	155	3490	Toxins	153	—
Toxic by inhalation liquid, water-reactive, flammable, n.o.s. (Inhalation Hazard Zone B)	155	3491	Toxins, extracted from living sources, liquid, n.o.s.	153	3172
Toxic by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)	139	3385	Toxins, extracted from living sources, solid, n.o.s.	153	3462
Toxic by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)	139	3386	Triallylamine	132	2610
Toxic liquid, corrosive, inorganic, n.o.s.	154	3289	Triallyl borate	156	2609
Toxic liquid, corrosive, organic, n.o.s.	154	2927	Triazine pesticide, liquid, flammable, poisonous	131	2764
Toxic liquid, flammable, organic, n.o.s.	131	2929	Triazine pesticide, liquid, flammable, toxic	131	2764
Toxic liquid, inorganic, n.o.s.	151	3287	Triazine pesticide, liquid, poisonous	151	2998
Toxic liquid, organic, n.o.s.	153	2810	Triazine pesticide, liquid, poisonous, flammable	131	2997
Toxic liquid, oxidizing, n.o.s.	142	3122	Triazine pesticide, liquid, toxic	151	2998
Toxic liquid, water-reactive, n.o.s.	139	3123	Triazine pesticide, liquid, toxic, flammable	131	2997
Toxic solid, corrosive, inorganic, n.o.s.	154	3290	Triazine pesticide, solid, poisonous	151	2763
Toxic solid, corrosive, organic, n.o.s.	154	2928	Triazine pesticide, solid, toxic	151	2763
Toxic solid, flammable, inorganic, n.o.s.	134	3535	Tributylamine	153	2542
Toxic solid, flammable, organic, n.o.s.	134	2930	Tributylphosphane	135	3254
Toxic solid, inorganic, n.o.s.	151	3288	Trichloroacetic acid	153	1839
Toxic solid, organic, n.o.s.	154	2811	Trichloroacetic acid, solution	153	2564
Toxic solid, oxidizing, n.o.s.	141	3086	Trichloroacetyl chloride	156	2442
Toxic solid, self-heating, n.o.s.	136	3124	Trichlorobenzenes, liquid	153	2321
Toxic solid, water-reactive, n.o.s.	139	3125	Trichlorobutene	152	2322
			1,1,1-Trichloroethane	160	2831
			Trichloroethylene	160	1710
			Trichloroisocyanuric acid, dry	140	2468
			Trichlorosilane	139	1295
			Tricresyl phosphate	151	2574
			Triethylamine	132	1296
			Triethylenetetramine	153	2259

Name of Material	Guide ID		Name of Material	Guide ID	
	No.	No.		No.	No.
Triethyl phosphite	130	2323	Trinitrobenzoic acid, wetted with not less than 10% water	113	3368
Trifluoroacetic acid	154	2699	Trinitrobenzoic acid, wetted with not less than 30% water	113	1355
Trifluoroacetyl chloride	125	3057	Trinitrochlorobenzene, wetted with not less than 10% water	113	3365
Trifluorochloroethylene, stabilized	119P	1082	Trinitrophenol, wetted with not less than 10% water	113	3364
1,1,1-Trifluoroethane	115	2035	Trinitrophenol, wetted with not less than 30% water	113	1344
Trifluoromethane	126	1984	Trinitrotoluene, wetted with not less than 10% water	113	3366
Trifluoromethane, refrigerated liquid	120	3136	Trinitrotoluene, wetted with not less than 30% water	113	1356
Trifluoromethane and Chlorotrifluoromethane azeotropic mixture with approximately 60% Chlorotrifluoromethane	126	2599	Tripropylamine	132	2260
2-Trifluoromethylaniline	153	2942	Tripropylene	128	2057
3-Trifluoromethylaniline	153	2948	Tris-(1-aziridinyl)phosphine oxide, solution	152	2501
Triisobutylene	128	2324	Tungsten hexafluoride	125	2196
Triisopropyl borate	129	2616	Turpentine	128	1299
Trimethoxysilane	132	9269	Turpentine substitute	128	1300
Trimethylacetyl chloride	131	2438	Undecane	128	2330
Trimethylamine, anhydrous	118	1083	Uranium hexafluoride, radioactive material, excepted package, less than 0.1 kg per package, non-fissile or fissile-excepted	166	3507
Trimethylamine, aqueous solution	132	1297	Uranium hexafluoride, radioactive material, fissile	166	2977
1,3,5-Trimethylbenzene	129	2325	Uranium hexafluoride, radioactive material, non fissile or fissile-excepted	166	2978
Trimethyl borate	129	2416	Urea hydrogen peroxide	140	1511
Trimethylchlorosilane	155	1298	Urea nitrate, wetted with not less than 10% water	113	3370
Trimethylcyclohexylamine	153	2326	Urea nitrate, wetted with not less than 20% water	113	1357
Trimethylhexamethylenediamines	153	2327	Valeraldehyde	129	2058
Trimethylhexamethylene diisocyanate	156	2328	Valeryl chloride	132	2502
Trimethyl phosphite	130	2329			
Trinitrobenzene, wetted with not less than 10% water	113	3367			
Trinitrobenzene, wetted with not less than 30% water	113	1354			

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Vanadium compound, n.o.s.	151	3285	Water-reactive liquid, poisonous, n.o.s.	139	3130
Vanadium oxytrichloride	137	2443	Water-reactive liquid, toxic, n.o.s.	139	3130
Vanadium pentoxide	151	2862	Water-reactive solid, corrosive, n.o.s.	138	3131
Vanadium tetrachloride	137	2444	Water-reactive solid, flammable, n.o.s.	138	3132
Vanadium trichloride	157	2475	Water-reactive solid, n.o.s.	138	2813
Vanadyl sulfate	151	2931	Water-reactive solid, oxidizing, n.o.s.	138	3133
Vanadyl sulphate	151	2931	Water-reactive solid, poisonous, n.o.s.	139	3134
Vehicle, flammable gas powered	115	3166	Water-reactive solid, self-heating, n.o.s.	138	3135
Vehicle, flammable liquid powered	128	3166	Water-reactive solid, toxic, n.o.s.	139	3134
Vehicle, fuel cell, flammable gas powered	115	3166	Wheelchair, electric, with batteries	154	3171
Vehicle, fuel cell, flammable liquid powered	128	3166	White asbestos	171	2590
Vinyl acetate, stabilized	129P	1301	White phosphorus, dry or under water or in solution	136	1381
Vinyl bromide, stabilized	116P	1085	White phosphorus, molten	136	2447
Vinyl butyrate, stabilized	129P	2838	Wood preservatives, liquid	129	1306
Vinyl chloride, stabilized	116P	1086	Wool waste, wet	133	1387
Vinyl chloroacetate	155	2589	Xanthates	135	3342
Vinyl ethyl ether, stabilized	127P	1302	Xenon	120	2036
Vinyl fluoride, stabilized	116P	1860	Xenon, compressed	120	2036
Vinylidene chloride, stabilized	130P	1303	Xenon, refrigerated liquid (cryogenic liquid)	120	2591
Vinyl isobutyl ether, stabilized	127P	1304	Xylenes	130	1307
Vinyl methyl ether, stabilized	116P	1087	Xylenols, liquid	153	3430
Vinylpyridines, stabilized	131P	3073	Xylenols, solid	153	2261
Vinyltoluenes, stabilized	130P	2618	Xylidines, liquid	153	1711
Vinyltrichlorosilane	155P	1305	Xylidines, solid	153	3452
Vinyltrichlorosilane, stabilized	155P	1305	Xylyl bromide, liquid	152	1701
VX	153	—			
Water-reactive liquid, corrosive, n.o.s.	138	3129			
Water-reactive liquid, n.o.s.	138	3148			

Name of Material	Guide No.	ID No.	Name of Material	Guide No.	ID No.
Xylyl bromide, solid	152	3417	Zirconium, dry, finished sheets, strips or coiled wire	135	2009
Yellow phosphorus, dry or under water or in solution	136	1381	Zirconium hydride	138	1437
Zinc ammonium nitrite	140	1512	Zirconium nitrate	140	2728
Zinc arsenate	151	1712	Zirconium picramate, wetted with not less than 20% water	113	1517
Zinc arsenate and Zinc arsenite mixture	151	1712	Zirconium powder, dry	135	2008
Zinc arsenite	151	1712	Zirconium powder, wetted with not less than 25% water	170	1358
Zinc arsenite and Zinc arsenate mixture	151	1712	Zirconium scrap	135	1932
Zinc ashes	138	1435	Zirconium suspended in a flammable liquid	170	1308
Zinc bromate	140	2469	Zirconium suspended in a liquid (flammable)	170	1308
Zinc chlorate	140	1513	Zirconium tetrachloride	137	2503
Zinc chloride, anhydrous	154	2331			
Zinc chloride, solution	154	1840			
Zinc cyanide	151	1713			
Zinc dithionite	171	1931			
Zinc dross	138	1435			
Zinc dust	138	1436			
Zinc fluorosilicate	151	2855			
Zinc hydrosulfite	171	1931			
Zinc hydrosulphite	171	1931			
Zinc nitrate	140	1514			
Zinc permanganate	140	1515			
Zinc peroxide	143	1516			
Zinc phosphide	139	1714			
Zinc powder	138	1436			
Zinc residue	138	1435			
Zinc resinate	133	2714			
Zinc silicofluoride	151	2855			
Zinc skimmings	138	1435			
Zirconium, dry, coiled wire, finished metal sheets or strip	170	2858			

NOTES

SUGGESTED OPERATIONS SHOULD ONLY BE PERFORMED BY ADEQUATELY TRAINED AND EQUIPPED PERSONNEL

HOW TO USE THE ORANGE GUIDES

1

GUIDE
117

GASES - TOXIC - FLAMMABLE
(EXTREME HAZARD)

GASES - TOXIC - FLAMMABLE
(EXTREME HAZARD)

GUIDE
117

POTENTIAL HAZARDS

HEALTH

- **TOXIC**, Extremely Hazardous.
- May be fatal if inhaled or absorbed through skin.
- Initial odor may be irritating or foul and may deaden your sense of smell.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause environmental contamination.

FIRE OR EXPLOSION

- These materials are extremely flammable.
- May form explosive mixtures with air.
- May be ignited by heat, sparks or flames.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Those substances designated with a (P) may polymerize explosively when heated or involved in a fire.
- Runoff may create fire or explosion hazard.
- Cylinders exposed to fire may vent and release toxic and flammable gas through pressure relief devices.
- Containers may explode when heated.
- Replaced cylinders may rocket.

PUBLIC SAFETY

- **CALL 911**. Then call emergency response telephone number on shipping paper, if shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along the ground and collect in low or confined areas (sewers, basements, tanks, etc.).
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer when there is **NO RISK OF FIRE**.
- Structural firefighters' protective clothing provides thermal protection but only limited chemical protection.

EVACUATION

- Immediate precautionary measure
- Isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- See **Table 1 - Initial Isolation and Protective Action Distances**.
- 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.

- In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 391).

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EMERGENCY RESPONSE

FIRE

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**
- **Small Fire**
- Dry chemical, CO₂, water spray or regular foam.
- **Large Fire**
- Water spray, fog or regular foam.
- If it can be done safely, move unattached containers away from the area around the fire.
- Damaged cylinders should be handled only by specialists.

Fire Involving Tanks

- Fight fire from maximum distance or use unmanned master stream devices 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; long 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.

SPILL OR LEAK

- **ELIMINATE** all ignition sources (no smoking, flares, sparks or flames) from 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.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- 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.
- Consider igniting spill or leak to eliminate toxic gas concerns.

FIRST AID

- Call 911 or emergency medical services.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- Give artificial respiration if victim is not breathing.
- **Do not perform mouth-to-mouth resuscitation if victim ingested or inhaled the substance; wash face and mouth before giving artificial respiration. Use 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.
- In case of contact with liquefied gas, then frostbitten 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 calm and warm.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.

4

1

GUIDE NUMBER AND TITLE

- The guide title identifies the general hazards associated with the materials in this Guide.

2

POTENTIAL HAZARDS


- Emergency responders should consult this section first!
- Describes the material hazard in terms of **FIRE OR EXPLOSION** and **HEALTH** effects upon exposure.
- The primary potential hazard is listed first.
- Allows the responders to make decisions to protect the emergency response team, and the surrounding population.

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SUGGESTED OPERATIONS SHOULD ONLY BE PERFORMED BY ADEQUATELY TRAINED AND EQUIPPED PERSONNEL

3

PUBLIC SAFETY

- This section is divided into three subsections:
 - › **General Information:** describes initial precautionary measures to be taken by those first on the scene.
 - › **PROTECTIVE CLOTHING:** provides general guidance on personal protective equipment requirements including respiratory protection. The protective clothing information is general and correct selection is situation dependent, after considering the physical and chemical properties of the material, weather conditions, spill versus fire, topography, etc.
 - › **EVACUATION:** suggests protective distances for immediate precautionary measures defined for small and large spills, including suggested guidance for conditions where fire is present or likely (potential fragmentation hazard).
 - The term “isolate” indicates a zone of no entry that applies to the public and first responders who are not equipped, trained, and prepared to mitigate the incident.
 - The term “evacuate” indicates people should be removed from inside this zone, if it can be done safely. If removal is too risky, sheltering-in-place can also be considered in this zone. Evacuation aims to protect as many people as possible, and applies mainly to the public.
- Materials **highlighted in green** in the yellow-bordered and blue-bordered pages direct the reader to consult Table 1, detailing specific response distances for toxic inhalation hazard materials, water-reactive materials and chemical warfare agents (green-bordered pages).
 -  ■ If a Canadian flag appears in this section, and the incident is located in Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product.

4

EMERGENCY RESPONSE

- This section is divided into three subsections:
 - › **FIRE:** provides extinguishing procedures for **Small Fire**, **Large Fire**, and/or **Fire Involving Tanks or Car/Trailer Loads**
 - › **SPILL OR LEAK:** includes general recommendations, and may describe the response procedure for **Small Spill** and **Large Spill**
 - › **FIRST AID:** provides general guidance prior to seeking expert medical care.

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 or dilution water may cause environmental contamination.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 100 meters (330 feet) in all directions.

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: Material may react with extinguishing agent.

Small Fire

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

Large Fire

- Water spray, fog or regular foam.
- If it can be done safely, move undamaged containers away from the area around the fire.

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) from 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 Spill

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

Large Spill

- Dike far ahead of liquid spill for later disposal.

FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- Give artificial respiration if victim is not breathing.
- **Do not perform mouth-to-mouth resuscitation if victim ingested or inhaled the substance; wash face and mouth before giving artificial respiration. Use 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 calm and warm.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

GUIDE EXPLOSIVES* - DIVISION 1.1, 1.2, 1.3 OR 1.5

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POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **MAY EXPLODE AND THROW FRAGMENTS 1600 METERS (1 MILE) OR MORE IF FIRE REACHES CARGO.**
- For information on "Compatibility Group" letters, refer to Glossary section.

HEALTH

- Fire may produce irritating, corrosive and/or toxic gases.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Move people out of line of sight of the scene and away from windows.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area immediately for at least 500 meters (1/3 mile) in all directions.

Large Spill

- **Consider initial evacuation for 800 meters (1/2 mile) in all directions.**

Fire

- If rail car or trailer is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, initiate evacuation including emergency responders for 1600 meters (1 mile) in all directions.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

*** FOR INFORMATION ON "COMPATIBILITY GROUP" LETTERS, REFER TO THE GLOSSARY SECTION.**

EMERGENCY RESPONSE

FIRE

CARGO Fire

- **DO NOT fight fire when fire reaches cargo! Cargo may EXPLODE!**
- Stop all traffic and clear the area for at least 1600 meters (1 mile) in all directions and let burn.
- **Do not move cargo or vehicle if cargo has been exposed to heat.**

TIRE or VEHICLE Fire

- **Use plenty of water - FLOOD it! If water is not available, use CO₂, dry chemical or dirt.**
- If possible, and WITHOUT RISK, use unmanned master stream devices or monitor nozzles from maximum distance to prevent fire from spreading to cargo area.
- Pay special attention to tire fires as re-ignition may occur. Stand by, at a safe distance, with extinguisher ready for possible re-ignition.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) from immediate area.
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- DO NOT OPERATE RADIO TRANSMITTERS WITHIN 100 METERS (330 FEET) OF ELECTRIC DETONATORS.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- 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.

* FOR INFORMATION ON "COMPATIBILITY GROUP" LETTERS, REFER TO THE GLOSSARY SECTION.

GUIDE 113 FLAMMABLE MATERIALS (WET/DESENSITIZED EXPLOSIVE)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Flammable/combustible material.
- May be ignited by heat, sparks or flames.
- **DRIED OUT material may explode if exposed to heat, flame, friction or shock; treat as an explosive (GUIDE 112).**
- **Keep material wet with water or treat as an explosive (GUIDE 112).**
- Runoff to sewer may create fire or explosion hazard.

HEALTH

- **Some are toxic** and may be fatal if inhaled, ingested or absorbed through skin. Specifically, Dinitrophenol, wetted (UN1320); Dinitrophenolates, wetted (UN1321), Sodium dinitro-o-cresolate, wetted (UN1348); and Barium azide, wetted (UN1571) are known to be toxic.
- Contact may cause burns to skin and eyes.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause environmental contamination.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area immediately for at least 100 meters (330 feet) in all directions.

Large Spill

- **Consider initial evacuation for 500 meters (1/3 mile) in all directions.**

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.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

EMERGENCY RESPONSE

FIRE

CARGO Fire

- **DO NOT fight fire when fire reaches cargo! Cargo may EXPLODE!**
- Stop all traffic and clear the area for at least 1600 meters (1 mile) in all directions and let burn.
- **Do not move cargo or vehicle if cargo has been exposed to heat.**

TIRE or VEHICLE Fire

- **Use plenty of water - FLOOD it! If water is not available, use CO₂, dry chemical or dirt.**
- If possible, and WITHOUT RISK, use unmanned master stream devices or monitor nozzles from maximum distance to prevent fire from spreading to cargo area.
- Pay special attention to tire fires as re-ignition may occur. Stand by, at a safe distance, with extinguisher ready for possible re-ignition.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) from immediate area.
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.

Small Spill

- Flush area with large amounts of water.

Large Spill

- Wet down with water and dike for later disposal.
- **KEEP "WETTED" PRODUCT WET BY SLOWLY ADDING FLOODING QUANTITIES OF WATER.**

FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- 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.

GUIDE EXPLOSIVES* - DIVISION 1.4 OR 1.6

114

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **MAY EXPLODE AND THROW FRAGMENTS 800 METERS (1/2 MILE) OR MORE IF FIRE REACHES CARGO.**
- For information on "Compatibility Group" letters, refer to Glossary section.

HEALTH

- Fire may produce irritating, corrosive and/or toxic gases.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Move people out of line of sight of the scene and away from windows.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area immediately for at least 100 meters (330 feet) in all directions.

Large Spill

- **Consider initial evacuation for 250 meters (800 feet) in all directions.**

Fire

- If rail car or trailer is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also initiate evacuation including emergency responders for 800 meters (1/2 mile) in all directions.
- If fire threatens cargo area containing packages bearing the 1.4S label or packages containing material classified as 1.4S, consider isolating at least 15 meters (50 feet) in all directions.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

*** FOR INFORMATION ON "COMPATIBILITY GROUP" LETTERS, REFER TO THE GLOSSARY SECTION.**

EMERGENCY RESPONSE

FIRE

CARGO Fire

- **DO NOT fight fire when fire reaches cargo! Cargo may EXPLODE!**
- Stop all traffic and clear the area for at least 800 meters (1/2 mile) in all directions and let burn.
- **Do not move cargo or vehicle if cargo has been exposed to heat.**

TIRE or VEHICLE Fire

- **Use plenty of water - FLOOD it! If water is not available, use CO₂, dry chemical or dirt.**
- If possible, and WITHOUT RISK, use unmanned master stream devices or monitor nozzles from maximum distance to prevent fire from spreading to cargo area.
- Pay special attention to tire fires as re-ignition may occur. Stand by, at a safe distance, with extinguisher ready for possible re-ignition.

CLASS 1.4S Fire

- Packages bearing the 1.4S label or packages containing material classified as 1.4S are designed or packaged in such a manner that when involved in a fire, they may burn vigorously with localized detonations and projection of fragments.
- Effects are usually confined to immediate vicinity of packages.
- Fight fire with normal precautions from a reasonable distance.

SPILL OR LEAK

- **ELIMINATE** all ignition sources (no smoking, flares, sparks or flames) from immediate area.
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- **DO NOT OPERATE RADIO TRANSMITTERS WITHIN 100 METERS (330 FEET) OF ELECTRIC DETONATORS.**
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- 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.

* **FOR INFORMATION ON "COMPATIBILITY GROUP" LETTERS, REFER TO THE GLOSSARY SECTION.**

GUIDE 115 GASES - FLAMMABLE (INCLUDING REFRIGERATED LIQUIDS)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

• EXTREMELY FLAMMABLE.

- Will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along ground.

CAUTION: Hydrogen (UN1049), Deuterium (UN1957), Hydrogen, refrigerated liquid (UN1966), Methane (UN1971) and Hydrogen and Methane mixture, compressed (UN2034) are lighter than air and will rise. Hydrogen and Deuterium fires are difficult to detect since they burn with an invisible flame. Use an alternate method of detection (thermal camera, broom handle, etc.)

- 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 irritating 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 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along the ground and collect in low or confined areas (sewers, basements, tanks, etc.).

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 100 meters (330 feet) in all directions.

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.
- In fires involving Liquefied Petroleum Gases (LPG) (UN1075), Butane (UN1011), Butylene (UN1012), Isobutylene (UN1055), Propylene (UN1077), Isobutane (UN1969), and Propane (UN1978), also refer to BLEVE – SAFETY PRECAUTIONS (Page 366).



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

EMERGENCY RESPONSE

FIRE

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

CAUTION: Hydrogen (UN1049), Deuterium (UN1957), Hydrogen, refrigerated liquid (UN1966) and Hydrogen and Methane mixture, compressed (UN2034) will burn with an invisible flame. Use an alternate method of detection (thermal camera, broom handle, etc.)

Small Fire

- Dry chemical or CO₂.

Large Fire

- Water spray or fog.
- If it can be done safely, move undamaged containers away from the area around the fire.

CAUTION: For LNG - Liquefied natural gas (UN1972) pool fires, DO NOT USE water. Use dry chemical or high-expansion foam.

Fire Involving Tanks

- Fight fire from maximum distance or use unmanned master stream devices 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 master stream devices 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) from 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.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.

CAUTION: For LNG - Liquefied natural gas (UN1972), DO NOT apply water, regular or alcohol-resistant foam directly on spill. Use a high-expansion foam if available to reduce vapors.

- Prevent spreading of vapors through sewers, ventilation systems and confined areas.
- Isolate area until gas has dispersed.

CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.

FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Clothing frozen to the skin should be thawed before being removed.
- 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 calm and warm.

GUIDE GASES - FLAMMABLE (UNSTABLE)

116

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **EXTREMELY FLAMMABLE.**

- Will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air. Acetylene (UN1001, UN3374) may react explosively even in the absence of air.
- Silane (UN2203) 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 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along the ground and collect in low or confined areas (sewers, basements, tanks, etc.).

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 100 meters (330 feet) in all directions.

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.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

EMERGENCY RESPONSE

FIRE

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

Small Fire

- Dry chemical or CO₂.

Large Fire

- Water spray or fog.
- If it can be done safely, move undamaged containers away from the area around the fire.

Fire Involving Tanks

- Fight fire from maximum distance or use unmanned master stream devices 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 master stream devices 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) from 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

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- 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 calm and warm.

GUIDE 117 GASES - TOXIC - FLAMMABLE (EXTREME HAZARD)

POTENTIAL HAZARDS

HEALTH

- **TOXIC; Extremely Hazardous.**
- May be fatal if inhaled or absorbed through skin.
- Initial odor may be irritating or foul and may deaden your sense of smell.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause environmental contamination.

FIRE OR EXPLOSION

- These materials are extremely flammable.
- May form explosive mixtures with air.
- May be ignited by heat, sparks or flames.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Those substances designated with a (P) may polymerize explosively when heated or involved in a fire.
- Runoff may create fire or explosion hazard.
- Cylinders exposed to fire may vent and release toxic and flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along the ground and collect in low or confined areas (sewers, basements, tanks, etc.).
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer **when there is NO RISK OF FIRE.**
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 100 meters (330 feet) in all directions.

Spill

- See [Table 1 - Initial Isolation and Protective Action Distances.](#)

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.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

EMERGENCY RESPONSE

FIRE

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

Small Fire

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

Large Fire

- Water spray, fog or regular foam.
- If it can be done safely, move undamaged containers away from the area around the fire.
- Damaged cylinders should be handled only by specialists.

Fire Involving Tanks

- Fight fire from maximum distance or use unmanned master stream devices 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.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) from 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.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- 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.
- Consider igniting spill or leak to eliminate toxic gas concerns.

FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- Give artificial respiration if victim is not breathing.
- **Do not perform mouth-to-mouth resuscitation if victim ingested or inhaled the substance; wash face and mouth before giving artificial respiration. Use 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.
- 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 calm and warm.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **EXTREMELY FLAMMABLE.**
- May be ignited by heat, sparks or flames.
- May form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Some of these materials may react violently with water.
- Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- May cause toxic effects if inhaled.
- Vapors are extremely irritating.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause environmental contamination.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along the ground and collect in low or confined areas (sewers, basements, tanks, etc.).
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer **when there is NO RISK OF FIRE.**
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 100 meters (330 feet) in all directions.

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.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

EMERGENCY RESPONSE

FIRE

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

Small Fire

- Dry chemical or CO₂.

Large Fire

- Water spray, fog or regular foam.
- If it can be done safely, move undamaged containers away from the area around the fire.
- Damaged cylinders should be handled only by specialists.

Fire Involving Tanks

- Fight fire from maximum distance or use unmanned master stream devices 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.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) from 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.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Isolate area until gas has dispersed.

FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- Give artificial respiration if victim is not breathing.
- **Do not perform mouth-to-mouth resuscitation if victim ingested or inhaled the substance; wash face and mouth before giving artificial respiration. Use 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 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 calm and warm.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled or absorbed through skin. TOXIC may cause severe skin burns and eye damage.**
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause environmental contamination.

FIRE OR EXPLOSION

- Flammable; may be ignited by heat, sparks or flames.
- May form explosive mixtures with air. Ethylene oxide (UN1040) may react explosively even in the absence of 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.
- Some of these materials may react violently with water.
- Cylinders exposed to fire may vent and release toxic and flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.
- Runoff may create fire or explosion hazard.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along the ground and collect in low or confined areas (sewers, basements, tanks, etc.).
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer **when there is NO RISK OF FIRE.**
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 100 meters (330 feet) in all directions.

Spill

- For **highlighted materials**: see Table 1 - Initial Isolation and Protective Action Distances.
- For non-highlighted materials: increase the immediate precautionary measure distance, in the downwind direction, as necessary.

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.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

EMERGENCY RESPONSE

FIRE

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

Small Fire

- Dry chemical, CO₂, water spray or alcohol-resistant foam.

Large Fire

- Water spray, fog or alcohol-resistant foam.
- **FOR CHLOROSILANES, DO NOT USE WATER;** use AFFF alcohol-resistant medium-expansion foam.
- If it can be done safely, move undamaged containers away from the area around the fire.
- Damaged cylinders should be handled only by specialists.

Fire Involving Tanks

- Fight fire from maximum distance or use unmanned master stream devices 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.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) from 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.
- 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.
- **FOR CHLOROSILANES,** use AFFF alcohol-resistant medium-expansion foam to reduce vapors.
- 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

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- Give artificial respiration if victim is not breathing.
- **Do not perform mouth-to-mouth resuscitation if victim ingested or inhaled the substance; wash face and mouth before giving artificial respiration. Use 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.
- 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 calm and warm.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.

GUIDE 120

GASES - INERT (INCLUDING REFRIGERATED LIQUIDS)

POTENTIAL HAZARDS

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.

FIRE OR EXPLOSION

- **Non-flammable gases.**
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along the ground and collect in low or confined areas (sewers, basements, tanks, etc.).
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids or solids.

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 100 meters (330 feet) in all directions.

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 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

- Use extinguishing agent suitable for type of surrounding fire.
- If it can be done safely, move undamaged containers away from the area around the fire.
- Damaged cylinders should be handled only by specialists.

Fire Involving Tanks

- Fight fire from maximum distance or use unmanned master stream devices 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.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Allow substance to evaporate.
- Ventilate the area.

CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.

FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim calm and warm.

GUIDE 121

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There are no materials that refer to this guide.

GUIDE 122 GASES - OXIDIZING (INCLUDING REFRIGERATED LIQUIDS)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Substance does not burn but will support combustion.
- Some may react explosively with fuels.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Runoff may create fire or explosion hazard.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- 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 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along the ground and collect in low or confined areas (sewers, basements, tanks, etc.).
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer **when there is NO RISK OF FIRE.**
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 100 meters (330 feet) in all directions.

Large Spill

- Consider initial downwind evacuation for at least 500 meters (1/3 mile).

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.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

EMERGENCY RESPONSE

FIRE

- Use extinguishing agent suitable for type of surrounding fire.

Small Fire

- Dry chemical or CO₂.

Large Fire

- Water spray, fog or regular foam.
- If it can be done safely, move undamaged containers away from the area around the fire.
- Damaged cylinders should be handled only by specialists.

Fire Involving Tanks

- Fight fire from maximum distance or use unmanned master stream devices 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 master stream devices or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- 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.
- Prevent entry into waterways, sewers, basements or confined areas.
- Allow substance to evaporate.
- Isolate area until gas has dispersed.

CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.

FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim calm and warm.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled or absorbed through skin.**
- Vapors may be irritating and/or corrosive.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause environmental contamination.

FIRE OR EXPLOSION

- Some may burn but none ignite readily.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Cylinders exposed to fire may vent and release toxic and/or corrosive gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along the ground and collect in low or confined areas (sewers, basements, tanks, etc.).
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer **when there is NO RISK OF FIRE.**
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 100 meters (330 feet) in all directions.

Spill

- For **highlighted materials**: see Table 1 - Initial Isolation and Protective Action Distances.
- For non-highlighted materials: increase the immediate precautionary measure distance, in the downwind direction, as necessary.

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.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical or CO₂.

Large Fire

- Water spray, fog or regular foam.
- Do not get water inside containers.
- If it can be done safely, move undamaged containers away from the area around the fire.
- Damaged cylinders should be handled only by specialists.

Fire Involving Tanks

- Fight fire from maximum distance or use unmanned master stream devices 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.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Isolate area until gas has dispersed.

FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- Give artificial respiration if victim is not breathing.
- **Do not perform mouth-to-mouth resuscitation if victim ingested or inhaled the substance; wash face and mouth before giving artificial respiration. Use 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 liquefied gas, thaw frosted parts with lukewarm water.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim calm and warm.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.

GUIDE 124

GASES - TOXIC AND/OR CORROSIVE - OXIDIZING

POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled or absorbed through skin.**
- Fire will produce irritating, corrosive and/or toxic gases.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Runoff from fire control or dilution water may cause environmental contamination.

FIRE OR EXPLOSION

- Substance does not burn but will support combustion.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- These are strong oxidizers and will react vigorously or explosively with many materials including fuels.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Some will react violently with air, moist air and/or water.
- Cylinders exposed to fire may vent and release toxic and/or corrosive gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along the ground and collect in low or confined areas (sewers, basements, tanks, etc.).
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer **when there is NO RISK OF FIRE.**
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 100 meters (330 feet) in all directions.

Spill

- See **Table 1 - Initial Isolation and Protective Action Distances.**

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.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

EMERGENCY RESPONSE

FIRE

Small Fire

CAUTION: These materials do not burn but will support combustion. Some will react violently with water.

- Contain fire and let burn. If fire must be fought, water spray or fog is recommended.
- **Water only; no dry chemical, CO₂ or Halon®.**
- Do not get water inside containers.
- If it can be done safely, move undamaged containers away from the area around the fire.
- Damaged cylinders should be handled only by specialists.

Fire Involving Tanks

- Fight fire from maximum distance or use unmanned master stream devices 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 master stream devices or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- 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.
- Ventilate the area.

FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- Give artificial respiration if victim is not breathing.
- **Do not perform mouth-to-mouth resuscitation if victim ingested or inhaled the substance; wash face and mouth before giving artificial respiration. Use a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Clothing frozen to the skin should be thawed before being removed.
- 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.
- Keep victim calm and warm.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.

GUIDE GASES - TOXIC AND/OR CORROSIVE 125

POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled, ingested or absorbed through skin.**
- Vapors are extremely irritating and corrosive.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause environmental contamination.

FIRE OR EXPLOSION

- Some may burn but none ignite readily.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Some of these materials may react violently with water.
- Cylinders exposed to fire may vent and release toxic and/or corrosive gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.
- For UN1005: Anhydrous ammonia, at high concentrations in confined spaces, presents a flammability risk if a source of ignition is introduced.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along the ground and collect in low or confined areas (sewers, basements, tanks, etc.).
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer **when there is NO RISK OF FIRE.**
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 100 meters (330 feet) in all directions.

Spill

- For **highlighted materials**: see Table 1 - Initial Isolation and Protective Action Distances.
- For non-highlighted materials: increase the immediate precautionary measure distance, in the downwind direction, as necessary.

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.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical or CO₂.

Large Fire

- Water spray, fog or regular foam.
- If it can be done safely, move undamaged containers away from the area around the fire.
- Do not get water inside containers.
- Damaged cylinders should be handled only by specialists.

Fire Involving Tanks

- Fight fire from maximum distance or use unmanned master stream devices 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.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- 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.
- Isolate area until gas has dispersed.

FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- Give artificial respiration if victim is not breathing.
- **Do not perform mouth-to-mouth resuscitation if victim ingested or inhaled the substance; wash face and mouth before giving artificial respiration. Use 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 liquefied gas, thaw frosted parts with lukewarm water.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- **In case of skin contact with hydrogen fluoride, anhydrous (UN1052)**, if calcium gluconate gel is available, rinse 5 minutes, then apply gel. Otherwise, continue rinsing until medical treatment is available.
- Keep victim calm and warm.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.

GUIDE 126 GASES - COMPRESSED OR LIQUEFIED (INCLUDING REFRIGERANT GASES)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Some may burn but none ignite readily.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

CAUTION: Aerosols (UN1950) may contain a flammable propellant.

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating, corrosive and/or toxic gases.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along the ground and collect in low or confined areas (sewers, basements, tanks, etc.).
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer **when there is NO RISK OF FIRE.**
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 100 meters (330 feet) in all directions.

Large Spill

- Consider initial downwind evacuation for at least 500 meters (1/3 mile).

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

- Use extinguishing agent suitable for type of surrounding fire.

Small Fire

- Dry chemical or CO₂.

Large Fire

- Water spray, fog or regular foam.
- If it can be done safely, move undamaged containers away from the area around the fire.
- Damaged cylinders should be handled only by specialists.

Fire Involving Tanks

- Fight fire from maximum distance or use unmanned master stream devices 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.
- Some of these materials, if spilled, may evaporate leaving a flammable residue.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- 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.
- Allow substance to evaporate.
- Ventilate the area.

FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- 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.
- Keep victim calm and warm.

GUIDE 127

FLAMMABLE LIQUIDS (WATER-MISCIBLE)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE:** Will be easily ignited by heat, sparks or flames.
- **CAUTION:** Ethanol (UN1170) can burn with an invisible flame. Use an alternate method of detection (thermal camera, broom handle, etc.)
- 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 the ground and collect in low or confined areas (sewers, basements, tanks, etc.).
- 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 will float on water.

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 asphyxiation.
- Runoff from fire control or dilution water may cause environmental contamination.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 50 meters (150 feet) in all directions.

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.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

EMERGENCY RESPONSE

FIRE

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

CAUTION: For fire involving UN1170, UN1987 or UN3475, alcohol-resistant foam should be used.

CAUTION: Ethanol (UN1170) can burn with an invisible flame. Use an alternate method of detection (thermal camera, broom handle, etc.)

Small Fire

- Dry chemical, CO₂, water spray or alcohol-resistant foam.

Large Fire

- Water spray, fog or alcohol-resistant foam.
- Avoid aiming straight or solid streams directly onto the product.
- If it can be done safely, move undamaged containers away from the area around the fire.

Fire Involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned master stream devices 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 master stream devices 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) from 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

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- 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 calm and warm.

GUIDE 128

FLAMMABLE LIQUIDS (WATER-IMMISCIBLE)

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 the ground and collect in low or confined areas (sewers, basements, tanks, etc.).
- 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 will float on water.
- Substance may be transported hot.
- For hybrid vehicles, GUIDE 147 (lithium ion batteries) or GUIDE 138 (sodium batteries) should also be consulted.
- **If molten aluminum is involved, refer to GUIDE 169.**

HEALTH

CAUTION: Petroleum crude oil (UN1267) may contain **TOXIC** hydrogen sulphide gas.

- 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 asphyxiation.
- Runoff from fire control or dilution water may cause environmental contamination.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 50 meters (150 feet) in all directions.

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.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

EMERGENCY RESPONSE

FIRE

CAUTION: The majority of 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.
- Avoid aiming straight or solid streams directly onto the product.
- If it can be done safely, move undamaged containers away from the area around the fire.

Fire Involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- For petroleum crude oil, do not spray water directly into a breached tank car. This can lead to a dangerous boil over.
- 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 master stream devices 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) from 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

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- 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 calm and warm.

GUIDE 129

FLAMMABLE LIQUIDS (WATER-MISCIBLE/NOXIOUS)

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 the ground and collect in low or confined areas (sewers, basements, tanks, etc.).
- 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 will float on water.

HEALTH

- May cause toxic effects if inhaled or absorbed through skin.
- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or asphyxiation.
- Runoff from fire control or dilution water may cause environmental contamination.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 50 meters (150 feet) in all directions.

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.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

EMERGENCY RESPONSE

FIRE

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

Small Fire

- Dry chemical, CO₂, water spray or alcohol-resistant foam.
- **Do not use dry chemical extinguishers to control fires involving nitromethane (UN1261) or nitroethane (UN2842).**

Large Fire

- Water spray, fog or alcohol-resistant foam.
- Avoid aiming straight or solid streams directly onto the product.
- If it can be done safely, move undamaged containers away from the area around the fire.

Fire Involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned master stream devices 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 master stream devices 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) from 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

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- 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 calm and warm.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

GUIDE 130 FLAMMABLE LIQUIDS (WATER-IMMISCIBLE/NOXIOUS)

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 the ground and collect in low or confined areas (sewers, basements, tanks, etc.).
- 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 will float on water.

HEALTH

- May cause toxic effects if inhaled or absorbed through skin.
- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or asphyxiation.
- Runoff from fire control or dilution water may cause environmental contamination.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 50 meters (150 feet) in all directions.

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

Small Fire

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

Large Fire

- Water spray, fog or regular foam.
- Avoid aiming straight or solid streams directly onto the product.
- If it can be done safely, move undamaged containers away from the area around the fire.

Fire Involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned master stream devices 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 master stream devices 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) from 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

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- 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. The verification code for this document is 405772
- 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 calm and warm.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

GUIDE FLAMMABLE LIQUIDS - TOXIC

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POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled, ingested or absorbed through skin.**
- Inhalation or contact with some of these materials will irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or asphyxiation.
- Runoff from fire control or dilution water may cause environmental contamination.

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- **CAUTION: Methanol (UN1230) will burn with an invisible flame. Use an alternate method of detection (thermal camera, broom handle, etc.)**
- 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 the ground and collect in low or confined areas (sewers, basements, tanks, etc.).
- Vapor explosion and poison 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 will float on water.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer **when there is NO RISK OF FIRE.**
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 50 meters (150 feet) in all directions.

Spill

- For **highlighted materials**: see Table 1 - Initial Isolation and Protective Action Distances.
- For non-highlighted materials: increase the immediate precautionary measure distance, in the downwind direction, as necessary.

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.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).