

**COMMITTEE OF EXPERTS ON THE TRANSPORT OF
DANGEROUS GOODS AND ON THE GLOBALLY
HARMONIZED SYSTEM OF CLASSIFICATION
AND LABELLING OF CHEMICALS**

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Chapter 4.2, Use of Multiple-Element Gas Containers (MEGC's)

Transmitted by the International Union of Railways (UIC/IUR)

The Model Regulations for the transport of MEGC's have now been introduced in the modal regulations. The UIC/IUR has, however, noted that neither in chapter 4.2, nor in the dangerous goods list in 3.2.2 is indicated which gases may be transported in MEGC's.

We also could not find in Chapter 4.2 a portable tank instruction (for MEGC's).

The UIC/IUR therefore wants to make the following proposals:

- 1) To attribute a Tank Instruction Txx to MEGC's;
- 2) To introduce this new code Txx in column (10) of the dangerous goods list for the following gases:

Compressed gases, non toxic

Labels	Name and description	UN No.
2.1	HYDROGEN, COMPRESSED	1049
2.1	COMPRESSED GAS, FLAMMABLE, N.O.S.	1954
2.1	DEUTERIUM, COMPRESSED	1957
2.1	HYDROCARBON GAS MIXTURE, COMPRESSED, N.O.S.	1964
2.1	METHANE, COMPRESSED or NATURAL GAS, COMPRESSED with high methane content	1971
2.1	HYDROGEN AND METHANE MIXTURE, COMPRESSED	2034
2.2	AIR, COMPRESSED	1002
2.2	ARGON, COMPRESSED	1006
2.2	HELIUM, COMPRESSED	1046
2.2	KRYPTON, COMPRESSED	1056
2.2	NEON, COMPRESSED	1065
2.2	NITROGEN, COMPRESSED	1066
2.2	COMPRESSED GAS, N.O.S.	1956
2.2	RARE GASES MIXTURE, COMPRESSED	1979
2.2	RARE GASES AND OXYGEN MIXTURE, COMPRESSED	1980
2.2	RARE GASES AND NITROGEN MIXTURE, COMPRESSED	1981
2.2+5.1	CARBON DIOXIDE AND OXYGEN MIXTURE, COMPRESSED	1014
2.2+5.1	OXYGEN, COMPRESSED	1072
2.2+5.1	COMPRESSED GAS, OXIDIZING, N.O.S.	3156

Compressed gases, toxic

Labels	Name and description	UN No.
2.3	HEXAETHYL TETRAPHOSPHATE AND COMPRESSED GAS MIXTURE	1612
2.3	COMPRESSED GAS, TOXIC, N.O.S.	1955
2.3+2.1	CARBON MONOXIDE, COMPRESSED	1016
2.3+2.1	COAL GAS, COMPRESSED	1023
2.3+2.1	OIL GAS, COMPRESSED	1071
2.3+2.1	COMPRESSED GAS, TOXIC, FLAMMABLE, N.O.S.	1953
2.3+2.1	CARBON MONOXIDE AND HYDROGEN MIXTURE, COMPRESSED	2600
2.3+2.1+8	COMPRESSED GAS, TOXIC, FLAMMABLE, CORROSIVE, N.O.S.	3305
2.3+5.1	COMPRESSED GAS, TOXIC, OXIDIZING, N.O.S.	3303
2.3+5.1+8	COMPRESSED GAS, TOXIC, OXIDIZING, CORROSIVE, N.O.S.	3306
2.3+8	COMPRESSED GAS, TOXIC, CORROSIVE, N.O.S.	3304

Liquefied and dissolved gases, non toxic

Labels	Name and description	UN No.
2.1	ACETYLENE, DISSOLVED	1001
2.1	BUTADIENES, STABILIZED or MIXTURES OF BUTADIENES AND HYDROCARBONS, STABILIZED	1010
2.1	BUTANE	1011
2.1	BUTYLENE	1012
2.1	CYCLOPROPANE	1027
2.1	1,1-DIFLUOROETHANE (REFRIGERANT GAS R 152a)	1030
2.1	DIMETHYLAMINE, ANHYDROUS	1032
2.1	DIMETHYL ETHER	1033
2.1	ETHANE	1035
2.1	ETHYLAMINE	1036
2.1	ETHYL CHLORIDE	1037
2.1	ETHYL METHYL ETHER	1039
2.1	ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE with more than 9% but not more than 87% ethylene oxide	1041
2.1	ISOBUTYLENE	1055
2.1	METHYLACETYLENE AND PROPADIENE MIXTURE, STABILIZED	1060
2.1	METHYLAMINE, ANHYDROUS	1061
2.1	METHYL CHLORIDE (REFRIGERANT GAS R 40)	1063
2.1	PETROLEUM GASES, LIQUEFIED	1075
2.1	PROPYLENE	1077
2.1	TRIMETHYLAMINE, ANHYDROUS	1083
2.1	VINYL BROMIDE, STABILIZED	1085
2.1	VINYL CHLORIDE, STABILIZED	1086
2.1	VINYL METHYL ETHER, STABILIZED	1087
2.1	VINYL FLUORIDE, STABILIZED	1860
2.1	METHYL CHLORIDE AND METHYLENE CHLORIDE MIXTURE	1912
2.1	1,1-DIFLUOROETHYLENE (REFRIGERANT GAS R 1132a)	1959
2.1	ETHYLENE	1962
2.1	HYDROCARBON GAS MIXTURE, LIQUEFIED, N.O.S.	1965
2.1	ISOBUTANE	1969
2.1	PROPANE	1978
2.1	1,1,1-TRIFLUOROETHANE (REFRIGERANT GAS R 143a)	2035
2.1	2,2-DIMETHYLPROPANE	2044
2.1	PROPADIENE, STABILIZED	2200
2.1	SILANE	2203
2.1	BROMOTRIFLUOROETHYLENE	2419
2.1	ETHYLACETYLENE, STABILIZED	2452
2.1	ETHYL FLUORIDE (REFRIGERANT GAS R 161)	2453
2.1	METHYL FLUORIDE (REFRIGERANT GAS R 41)	2454

Labels	Name and description	UN No.
2.1	1-CHLORO-1,1-DIFLUOROETHANE (REFRIGERANT GAS R 142b)	2517
2.1	CYCLOBUTANE	2601
2.1	PERFLUORO(METHYL VINYL ETHER)	3153
2.1	PERFLUORO(ETHYL VINYL ETHER)	3154
2.1	LIQUEFIED GAS, FLAMMABLE, N.O.S.	3161
2.1	DIFLUOROMETHANE (REFRIGERANT GAS R 32)	3252
2.1	INSECTICIDE GAS, FLAMMABLE, N.O.S.	3354
2.2	BROMOTRIFLUOROMETHANE (REFRIGERANT GAS R 13B1)	1009
2.2	CARBON DIOXIDE	1013
2.2	CARBON DIOXIDE AND NITROUS OXIDE MIXTURE	1015
2.2	CHLORODIFLUOROMETHANE (REFRIGERANT GAS R 22)	1018
2.2	CHLOROPENTAFLUROETHANE (REFRIGERANT GAS R 115)	1020
2.2	1-CHLORO-1,2,2,2-TETRAFLUROETHANE (REFRIGERANT GAS R 124)	1021
2.2	CHLOROTRIFLUOROMETHANE (REFRIGERANT GAS R 13)	1022
2.2	DICHLORODIFLUOROMETHANE (REFRIGERANT GAS R 12)	1028
2.2	DICHLOROFLUROMETHANE (REFRIGERANT GAS R 21)	1029
2.2	LIQUEFIED GASES, non-flammable, charged with nitrogen, carbon dioxide or air	1058
2.2	REFRIGERANT GAS, N.O.S., such as mixture F1, mixture F2 or mixture F3	1078
2.2	SULPHUR HEXAFLUROIDE	1080
2.2	HEXAFLUROPROPYLENE (REFRIGERANT GAS R 1216)	1858
2.2	ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE with not more than 9% ethylene oxide	1952
2.2	1,2-DICHLORO-1,1,2,2-TETRAFLUROETHANE (REFRIGERANT GAS R 114)	1958
2.2	INSECTICIDE GAS, N.O.S.	1968
2.2	CHLORODIFLUOROMETHANE AND CHLOROPENTAFLUROETHANE MIXTURE with fixed boiling point, with approximately 49% chlorodifluoromethane (REFRIGERANT GAS R 502)	1973
2.2	CHLORODIFLUOROBROMO-METHANE (REFRIGERANT GAS R 12B1)	1974
2.2	OCTAFLUROCYCLOBUTANE (REFRIGERANT GAS RC 318)	1976
2.2	TETRAFLUROMETHANE (REFRIGERANT GAS R 14)	1982
2.2	1-CHLORO-2,2,2-TRIFLUOROETHANE (REFRIGERANT GAS R 133a)	1983
2.2	TRIFLUOROMETHANE (REFRIGERANT GAS R 23)	1984
2.2	XENON	2036
2.2	AMMONIA SOLUTION, relative density less than 0.880 at 15 C in water, with more than 35% but not more than 50% ammonia	2073
2.2	HEXAFLUROETHANE (REFRIGERANT GAS R 116)	2193
2.2	OCTAFLUROBUT-2-ENE (REFRIGERANT GAS R 1318)	2422
2.2	OCTAFLUROPROPANE (REFRIGERANT GAS R 218)	2424
2.2	CHLOROTRIFLUOROMETHANE AND TRIFLUOROMETHANE AZEOTROPIC MIXTURE with approximately 60% chlorotrifluoromethane (REFRIGERANT GAS R 503)	2599
2.2	DICHLORODIFLUOROMETHANE AND 1,1-DIFLUOROETHANE AZEOTROPIC MIXTURE with approximately 74% dichlorodifluoromethane (REFRIGERANT GAS R 500)	2602

Labels	Name and description	UN No.
2.2	ETHYLENE OXIDE AND DICHLORODIFLUOROMETHANE MIXTURE with not more than 12.5% ethylene oxide	3070
2.2	1,1,1,2-TETRAFLUOROETHANE (REFRIGERANT GAS R 134a)	3159
2.2	LIQUEFIED GAS, N.O.S.	3163
2.2	PENTAFLUOROETHANE (REFRIGERANT GAS R 125)	3220
2.2	HEPTAFLUOROPROPANE (REFRIGERANT GAS R 227)	3296
2.2	ETHYLENE OXIDE AND CHLOROTETRAFLUOROETHANE MIXTURE with not more than 8.8% ethylene oxide	3297
2.2	ETHYLENE OXIDE AND PENTAFLUOROETHANE MIXTURE with not more than 7.9% ethylene oxide	3298
2.2	ETHYLENE OXIDE AND TETRAFLUOROETHANE MIXTURE with not more than 5.6% ethylene oxide	3299
2.2	REFRIGERANT GAS R 404A (Pentafluoroethane, 1,1,1-trifluoroethane, and 1,1,1,2-tetrafluoroethane zeotropic mixture with approximately 44 % pentafluoroethane und 52 % 1,1,1-trifluoroethane)	3337
2.2	REFRIGERANT GAS R 407A (Difluoromethane, pentafluoroethane, and 1,1,1,2-tetrafluoroethane zeotropic mixture with approximately 20% difluoromethane and 40% pentafluoroethane)	3338
2.2	REFRIGERANT GAS R 407B (Difluoromethane, pentafluoroethane, and 1,1,1,2-tetrafluoroethane zeotropic mixture with approximately 10% difluoromethane and 70% pentafluoroethane)	3339
2.2	REFRIGERANT GAS R 407C (Difluoromethane, pentafluoroethane, and 1,1,1,2-tetrafluoroethane zeotropic mixture with approximately 23% difluoromethane and 25% pentafluoroethane)	3340
2.2+5.1	NITROUS OXIDE	1070
2.2+5.1	NITROGEN TRIFLUORIDE	2451
2.2+5.1	LIQUEFIED GAS, OXIDIZING, N.O.S.	3157

Liquefied and dissolved gases, toxic

Labels	Name and description	UN No.
2.3	METHYL BROMIDE with not more than 2% chloropicrin	1062
2.3	CHLOROPICRIN AND METHYL BROMIDE MIXTURE with more than 2% chloropicrin	1581
2.3	CHLOROPICRIN AND METHYL CHLORIDE MIXTURE	1582
2.3	INSECTICIDE GAS, TOXIC, N.O.S.	1967
2.3	SULPHURYL FLUORIDE	2191
2.3	LIQUEFIED GAS, TOXIC, N.O.S.	3162
2.3+2.1	CYANOGEN	1026
2.3+2.1	ETHYLENE OXIDE WITH NITROGEN up to a total pressure of 1 MPa (10 bar) at 50 °C	1040
2.3+2.1	TRIFLUOROCHLOROETHYLENE, STABILIZED	1082
2.3+2.1	CARBONYL SULPHIDE	2204
2.3+2.1	LIQUEFIED GAS, TOXIC, FLAMMABLE, N.O.S.	3160
2.3+2.1	ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE with more than 87% ethylene oxide	3300

Labels	Name and description	UN No.
2.3+2.1	INSECTICIDE GAS, TOXIC, FLAMMABLE, N.O.S.	3355
2.3+2.1+8	DICHLOROSILANE	2189
2.3+2.1+8	LIQUEFIED GAS, TOXIC, FLAMMABLE, CORROSIVE, N.O.S.	3309
2.3+5.1	PERCHLORYL FLUORIDE	3083
2.3+5.1	LIQUEFIED GAS, TOXIC, OXIDIZING, N.O.S.	3307
2.3+5.1+8	DINITROGEN TETROXIDE (NITROGEN DIOXIDE)	1067
2.3+5.1+8	CHLORINE TRIFLUORIDE	1749
2.3+5.1+8	BROMINE CHLORIDE	2901
2.3+5.1+8	LIQUEFIED GAS, TOXIC, OXIDIZING, CORROSIVE, N.O.S.	3310
2.3+8	AMMONIA, ANHYDROUS	1005
2.3+8	BORON TRIFLUORIDE	1008
2.3+8	HYDROGEN BROMIDE, ANHYDROUS	1048
2.3+8	HYDROGEN CHLORIDE, ANHYDROUS	1050
2.3+8	SILICON TETRAFLUORIDE	1859
2.3+8	HYDROGEN IODIDE, ANHYDROUS	2197
2.3+8	CARBONYL FLUORIDE	2417
2.3+8	HEXAFLUROACETONE	2420
2.3+8	TRIFLUOROACETYL CHLORIDE	3057
2.3+8	LIQUEFIED GAS, TOXIC, CORROSIVE, N.O.S.	3308
2.3+8	AMMONIA SOLUTION, relative density less than 0.880 at 15°C in water, with more than 50% ammonia	3318
