CHEAT SHEET FOR CPC-1325

THE GREENBRIER COMPANIES

CPC-1325
Final Action, Revision to MSRP Section C Part III, M-1002, Specifications for Tank Cars, Chapter 2
Issued: April 07, 2017
Effective: April 07, 2017

The revision to MSRP Section C Part III, M-1002, Specifications for Tank Cars, Chapter 2; Section 2.8 "Tank Cars Transporting TIH" makes reference to several CFR documents and tables contained therein.

The information contained in the tables of these documents (49 CFR 173.244 "Bulk packaging for certain pyrophoric liquids (Division 4.2), dangerous when wet (Division 4.3) materials, and poisonous liquids with inhalation hazards (Division 6.1)" and 49 CFR 173.314 "Compressed gases in tank cars and multi-unit tank cars") has been consolidated below. The following table is intended for reference only and does not replace the information contained in the Specification and Codes.

Authorized tank car specification (see Note below)	Proper shipping name
105J500I	Acetone cyanohydrin, stabilized
	Allyl Alcohol
	Ammonia, anhydrous, or ammonia solutions >50 percent ammonia
	Ammonia solutions with >35 percent, but ≤50 percent ammonia by mass
	Argon, compressed Note 4 107
	Boron trichloride Note 3 105, 106
	Bromine
	Carbon dioxide, refrigerated liquid
	Chloropicrin
	Chlorosulfonic acid
	Dimethyl sulfate
	Dinitrogen tetroxide, inhibited
	Division 2.1 materials not specifically identified in the compressed gases table (49 CFR 173.314)
	Division 2.2 materials not specifically identified in the compressed gases table (49 CFR 173.314)
	Division 2.3 Zone C materials not specifically identified in the compressed gases table (49 CFR 173.314)
	Division 2.3 Zone D materials not specifically identified in the compressed gases table (49 CFR 173.314)
	Ethylamine
	Ethyl chloroformate
	Helium, compressed
	Hexachlorocyclopentadiene
	Hydrocyanic acid, aqueous solution or Hydrogen cyanide, aqueous solution with not morethan 20% hydrogen cyanide
	Hydrogen

	Hydrogen fluoride, anhydrous
	Methyl bromide
	Methyl chloride
	Methyl mercaptan
	Methylamine, anhydrous
	Nitrogen, compressed
	Nitrosyl chloride
	Nitrous oxide, refrigerated liquid
	Oxygen, compressed
	Phosgene
	Phosphorus trichloride
	Poison inhalation hazard, Zone B materials not specifically identified in the PIH table (49 CFR 173.244)
	Sulfur dioxide, liquefied
	Sulfuric acid, fuming
	Sulfur trioxide, stabilized
	Sulfuryl fluoride
	Titanium tetrachloride
	Vinyl fluoride, stabilized
105J600I	Acetone cyanohydrin, stabilized
	Allyl Alcohol
	Ammonia, anhydrous, or ammonia solutions >50 percent ammonia
	Ammonia solutions with >35 percent, but ≤50 percent ammonia by mass
	Argon, compressed Note 4 107
	Boron trichloride Note 3 105, 106
	Carbon dioxide, refrigerated liquid
	Chloropicrin
	Chlorosulfonic acid
	Dimethyl sulfate
	Division 2.3 Zone D materials not specifically identified in this table
	Ethylamine
	Ethyl chloroformate
	Helium, compressed
	Hexachlorocyclopentadiene
	Hydrocyanic acid, aqueous solution or Hydrogen cyanide, aqueous solution with not more than 20% hydrogen cyanide
	Hydrogen
	Hydrogen fluoride, anhydrous
	Phosphorus trichloride
	Poison inhalation hazard, Zone B materials not specifically identified in the PIH table (49 CFR 173.244)
	Sulfuric acid, fuming
	Sulfur trioxide, stabilized
	Titanium tetrachloride
112J500I	Hydrogen chloride, refrigerated liquid

Note (excerpt from 49 CFR 173.244 and 49 CFR 173.314):

"…Except as provided by paragraph (d) of this section, for materials poisonous by inhalation, fusion-welded tank car tanks built on or after March 16, 2009 used for the transportation of the PIH materials noted, must meet the applicable authorized tank car specification and must be equipped with a head shield as prescribed in § 179.16(c)(1).

(d) Alternative tank car tanks for materials poisonous by inhalation.

(1) As an alternative to the authorized tank car specification noted in the column 4 of the table in paragraph (c) of this section, a car of the same authorized tank car specification but of the next lower test pressure, as prescribed in column 5 of the table at §179.101-1, may be used provided both of the following conditions are met:

(i) The difference between the alternative and the required minimum plate thicknesses, based on the calculation prescribed in § 179.100-6 of this subchapter, is added to the alternative tank car jacket and head shield. When the jacket and head shield are made from any authorized steel with a minimum tensile strength from 70,000 p.s.i. to 80,000 p.s.i., but the required minimum plate thickness calculation is based on steel with a minimum tensile strength of 81,000 p.s.i., the thickness to be added to the jacket and head shield must be increased by a factor of 1.157. Forming allowances for heads are not required to be considered when calculating thickness differences as prescribed in this paragraph.

(ii) The tank car jacket and head shield must be manufactured from carbon steel plate as prescribed in § 179.100-7(a) of this subchapter."