

Appendix:

Table of Test Standards for Alcohol Products Containers

I. General standard:				
Material	Material Test Item and Passing Standard	Migration Tests		
		Solvent	Migration Condition	Item and Passing Standard
Glass, porcelain, and enameled containers (a) More than 2.5 cm in depth and not more than 1.1 L of its capacity.		4% Acetic acid	Room temperature (dark place) for 24 hours	Lead (Pb): Not more than 5 ppm. Cadmium (Cd): Not more than 0.5 ppm.
Glass, porcelain, and enameled containers (b) More than 2.5 cm in depth and more than 1.1 L of its capacity.		4% Acetic acid	Room temperature (dark place) for 24 hours	Lead (Pb): Not more than 2.5 ppm. Cadmium (Cd): Not more than 0.25 ppm.
Glass, porcelain, and enameled containers (c) Not more than 2.5 cm in depth or unable to be filled up with liquid.		4% Acetic acid	Room temperature (dark place) for 24 hours	Lead (Pb): Not more than 17 $\mu\text{g}/\text{cm}^2$. Cadmium (Cd): Not more than 1.7 $\mu\text{g}/\text{cm}^2$.
Metal Cans		20% Alcohol	60°C for 30 min.	Residues after evaporation : Not more than 30 ppm. * Applied only to cans coated with synthetic resins.
		Alcohol	Below 5°C for 24 hours	Vinyl chloride monomer: Not more than 0.05 ppm. * Applied only to the cans coated with synthetic resins.

Plastics	<p>Pb: Not more than 100ppm.</p> <p>Cd: Not more than 100 ppm.</p> <p>(Di-(2-ethylhexyl)phthalate, DEHP) (Di-n-butyl phthalate, DBP) (Butylbenzyl phthalate, BBP) (Diisodecyl phthalate, DIDP) (Diisononyl phthalate, DINP) (Dimethyl phthalate, DMP) (Di-n-octyl phthalate, DNOP) (Diethyl phthalate, DEP) individual content shall not exceed 0.1%(by mass). The above requirement on the contents of phthalates does not apply to Polyvinyl chloride (PVC) material.</p>	n-Heptane	25°C for 1 hr	<p>di-(2-ethylhexyl)phthalate(DEHP):Not more than 1.5 ppm.</p> <p>di-n-butyl phthalate(DBP):Not more than 0.3 ppm.</p> <p>(Butylbenzyl phthalate, BBP): not more than 30ppm. (Diisodecyl phthalate, DIDP): not more than 9ppm. (Diisononyl phthalate, DINP): not more than 9ppm. (Di-2-ethylhexyl Adipate, DEHA): not more than 18ppm.</p>
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II. Requirements for plastics:

Material	Material Test Item and Passing Standard	Migration Tests		
		Solvent	Migration Condition	Item and Passing Standard

Polyvinyl chloride [PVC]	Lead (Pb): Not more than 100 ppm.	4% Acetic acid	60°C for 30 min.	Heavy metals: Not more than 1 ppm (as Pb).
	Cadmium (Cd): Not more than 100 ppm. Dibutyltin: Not more than 50 ppm (as dibutyltin dichloride). Cresyl phosphate: Not more than 1,000 ppm. Vinyl chloride monomer: Not more than 1 ppm. (Di-(2-ethylhexyl) phthalate, DEHP) (Di-n-butyl phthalate, DBP) (Butylbenzyl phthalate, BBP) (Diisodecyl phthalate, DIDP) (Diisonoyl phthalate, DINP) (Dimethyl phthalate, DMP) (Di-n-octyl phthalate, DNOP) (Diethyl phthalate, DEP). The total amount of the eight contents shall not exceed 0.1% (by mass).			Residues after evaporation : Not more than 30 ppm. * Applied only to containers for alcohol products with a pH \leq 5.
		20% Alcohol, for containers that are filled with alcohol products of more than 20% of alcohol concentration, the containers shall be tested with the actual alcohol concentration.		Residues after evaporation : Not more than 30 ppm.

Polyvinylidene chloride [PVDC]	Lead (Pb): Not more than 100 ppm.	4% Acetic acid	60°C for 30 min.	Heavy metals: Not more than 1 ppm (as Pb).
	Cadmium (Cd): Not more than 100 ppm.			Residues after evaporation : not more than 30 ppm.
	Barium (Ba): Not more than 100 ppm.	20% Alcohol, for containers that are filled with alcohol products of more than 20% of alcohol concentration, the containers shall be tested with the actual alcohol concentration.		* Applied only to containers for alcohol products with a pH \leq 5.
	Vinylidene dichloride monomer: Not more than 6 ppm.			Residues after evaporation : Not more than 30 ppm.
Polyethylene [PE] and Polypropylene [PP]	Lead (Pb): Not more than 100 ppm.	4% Acetic acid	60°C for 30 min.	Heavy metals: Not more than 1 ppm (as Pb).
	Cadmium (Cd): Not more than 100 ppm.	20% Alcohol, for containers that are filled with alcohol products of more than 20% of alcohol concentration, the containers shall be tested with the actual alcohol concentration.		Residues after evaporation : not more than 30 ppm.
				* Applied only to containers for alcohol products with a pH \leq 5.
				Residues after evaporation : Not more than 30 ppm.

Polystyrene [PS]	Lead (Pb): Not more than 100 ppm.	4% Acetic acid	60°C for 30 min.	Heavy metals: Not more than 1 ppm (as Pb).
	Cadmium (Cd): Not more than 100 ppm.			Residues after evaporation : Not more than 30 ppm.
	Volatile compounds (the sum of styrene, toluene, ethyl benzene, n-propyl benzene, and isopropylbenzene): Not more than 5,000 ppm.	20% Alcohol, for containers that are filled with alcohol products of more than 20% of alcohol concentration, the containers shall be tested with the actual alcohol concentration.		* Applied only to containers for alcohol products with a pH \leq 5.
	But, foaming polystyrene is not more than 2000 ppm, among which styrene and ethyl benzene shall not be more than 1,000 ppm respectively.			Residues after evaporation : Not more than 30 ppm.
Poly(ethylene terephthalate)[PET]	Lead (Pb): Not more than 100 ppm.	4% Acetic acid	60°C for 30 min.	Heavy metals: Not more than 1 ppm (as Pb).
	Cadmium (Cd): Not more than 100 ppm.			Stibium (Sb) : Not more than 0.05ppm.
		20% Alcohol, for containers that are filled with alcohol products of more than 20% of alcohol concentration, the containers shall be tested with the actual alcohol concentration.		Germanium (Ge): Not more than 0.1ppm.
				Residues after evaporation : Not more than 30 ppm.
				* Applied only to containers for alcohol products with a pH \leq 5.
				Residues after evaporation : Not more than 30 ppm.

Poly(methyl methacrylate) [PMMA]	Lead (Pb): Not more than 100 ppm.	4% Acetic acid	60°C for 30 min.	Heavy metals: Not more than 1 ppm (as Pb). Residues after evaporation : Not more than 30 ppm. * Applied only to containers for alcohol products with a pH \leq 5.
	Cadmium (Cd): Not more than 100 ppm.	20% Alcohol, for containers that are filled with alcohol products of more than 20% of alcohol concentration, the containers shall be tested with the actual alcohol concentration.		Residues after evaporation : Not more than 30 ppm. Methyl Methacrylate Monomer: Not more than 15 ppm.
Polyamide [PA,Nylon]	Lead (Pb): Not more than 100 ppm.	4% Acetic acid	60°C for 30 min.	Heavy metals: Not more than 1 ppm (as Pb). Residues after evaporation : Not more than 30 ppm. * Applied only to containers for alcohol products with a pH \leq 5.
	Cadmium (Cd): Not more than 100 ppm.	20% Alcohol, for containers that are filled with alcohol products of more than 20% of alcohol concentration, the containers shall be tested with the actual alcohol concentration.		Residues after evaporation : Not more than 30 ppm. Caprolactam monomer: Not more than 15 ppm.

Polymethyl pentene [PMP]	Lead (Pb): Not more than 100 ppm.	4% Acetic acid	60°C for 30 min.	Heavy metals: Not more than 1 ppm (as Pb)
	Cadmium (Cd): Not more than 100 ppm.	20% Alcohol, for containers that are filled with alcohol products of more than 20% of alcohol concentration, the containers shall be tested with the actual alcohol concentration.		Residues after evaporation : Not more than 30 ppm. * Applied only to containers for alcohol products with a pH \leq 5.
polycarbonate	Bisphenol A (phenol and p-tert-butylphenol) : Not more than 500 ppm.	4% Acetic acid	60°C for 30 min.	Bisphenol A (phenol and p-tert-butylphenol) : Not more than 2.5 ppm.
	Diphenylcarbonate : Not more than 500 ppm. Amines (triethylamine and tributylamine): Not more than 1 ppm.	20% Alcohol, for containers that are filled with alcohol products of more than 20% of alcohol concentration, the containers shall be tested with the actual alcohol concentration.		Residues after evaporation : Not more than 30 ppm. * Applied only to containers for alcohol products with a pH \leq 5. Bisphenol A (phenol and p-tert-butylphenol): Not more than 2.5 ppm. Residues after evaporation : Not more than 30 ppm.

Polyvinyl alcohol		4% Acetic acid	60°C for 30 min.	Residues after evaporation : Not more than 30 ppm. * Applied only to containers for alcohol products with a pH \leq 5.
		20% Alcohol, for containers that are filled with alcohol products of more than 20% of alcohol concentration, the containers shall be tested with the actual alcohol concentration.		Residues after evaporation : Not more than 30 ppm.
Rubber	Lead (Pb): Not more than 100 ppm. Cadmium (Cd): Not more than 100 ppm. 2-Mercaptoimidazole: Negative.	4% Acetic acid	60°C for 30 min.	Zinc: Not more than 15ppm. Heavy metals: Not more than 1 ppm (as Pb). * Applied only to containers for alcohol products with a pH \leq 5.
		20% Alcohol, for containers that are filled with alcohol products of more than 20% of alcohol concentration, the containers shall be tested with the actual alcohol concentration.		Residues after evaporation : Not more than 60 ppm.