



TOYS FOR JAPAN

SAFETY STANDARDS OVERVIEW

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JAPAN SAFETY TOY MARK PROGRAM (ST MARK)

In 1971, the Japan Toy Association (JTA), a public interest entity approved by the Ministry of Economy, Trade and Industry, established the Japan Safety Toy Mark Program (ST Mark) to ensure the safety of toys for children 14 years of age and under. The ST Mark is based on three toy safety standards:

- ST Part 1 - Mechanical and physical properties
- ST Part 2 - Flammability
- ST Part 3 - Chemical properties

In December 2019, the Japan Toy Association (JTA) published the [ST 2016 Third Edition standard on toy safety](#). The major changes are related to Part 1:

- Sections 4.11 'Cords' and 5.11 'Test for cords'
- Sections 4.23 'Acoustic requirements' and 5.23 'Determination of sound pressure levels'
- Section 5.19 'Expanding materials'
- Sections 3.80 on definition of 'Large and bulky toys' and 5.22.3 'Tip over test for large and bulky toys'

The ST 2016 Third Edition on toy safety has been in effect for applications received since June 2020.

The (non-exhaustive) chemical requirements for toys under ST 2016 Third Edition and the Japan Food Sanitation Act (JFSA), commonly known as the Japan Food Sanitation Law (JFSL), are summarized on pages 3 to 5

JAPAN FOOD SANITATION LAW (JFSL)

TOY/TOY MATERIAL	PARAMETER	REQUIREMENT
Utsushir-e (Decal sticky toy)	Arsenic	0.1 µg/ml (as As ₂ O ₃)
	Heavy metals	≤ 1 µg/ml (as lead)
Origami (folding paper)	Arsenic	0.1 µg/ml (as As ₂ O ₃)
	Heavy metals	≤ 1 µg/ml (as lead)
Coatings on toys	Arsenic	≤ 25 µg/g
	Cadmium	≤ 75 µg/g
	Lead	≤ 90 µg/g
Coatings containing PVC	Evaporation residue	≤ 50 µg/ml
	Potassium permanganate consumption	≤ 50 µg/ml
Small part metal jewelry	Lead	≤ 90 µg/ml
Material manufactured mainly from PVC (excluding coatings)	Arsenic	≤ 0.1 µg/ml (as As ₂ O ₃)
	Cadmium	≤ 0.5 µg/ml
	Evaporation residue	≤ 50 µg/ml
	Heavy metals	≤ 1 µg/ml (as lead)
	Potassium permanganate consumption	≤ 50 µg/ml
Material manufactured mainly from polyethylene (PE)	Arsenic	≤ 0.1 µg/ml (as As ₂ O ₃)
	Evaporation residue	≤ 30 µg/ml
	Heavy metals	≤ 1 µg/ml (as lead)
	Potassium permanganate consumption	≤ 10 µg/ml
Rubber pacifiers	Evaporation residue	≤ 40 µg/ml
	Formaldehyde	Negative
	Heavy metal content (cadmium and lead)	≤ 10 µg/g each
	Heavy metals	≤ 1 µg/ml (as lead)
	Phenol	≤ 5 µg/ml
	Zinc	≤ 1 µg/ml

FOCUS ON PHTHALATES (JFSL AND ST 2016 3RD EDITION)

JAPAN FOOD SANITATION LAW (JFSL) AND ST 2016 3 RD EDITION				
Phthalate	Toys intended to come into direct contact with infant's mouth			Other designated toys (PVC, PU, Rubber)
	Parts that come into direct contact with mouth	Other parts		
		PVC, PU or rubber	PVC	
DEHP	≤ 0.1%	≤ 0.1%	≤ 0.1%	≤ 0.1%
DBP	≤ 0.1%	≤ 0.1%	≤ 0.1%	≤ 0.1%
BBP	≤ 0.1%	≤ 0.1%	≤ 0.1%	≤ 0.1%
DINP	≤ 0.1%	≤ 0.1%	Not restricted	Not restricted
DIDP	≤ 0.1%	Not restricted	Not restricted	Not restricted
DNOP	≤ 0.1%	Not restricted	Not restricted	Not restricted

ST 2016 3RD EDITION PART 3 (CHEMICALS)

TOY MATERIAL	PARAMETER	REQUIREMENT
PVC excluding coatings	Arsenic	≤ 0.1 µg/ml (as arsenious acid)
	Cadmium	≤ 0.5 µg/ml
	Evaporation residue	≤ 50 µg/ml
	Heavy metals	≤ 1 µg/ml (as lead)
	Potassium permanganate consumption	≤ 50 µg/ml
Polyethylene (PE)	Arsenic	≤ 0.1 µg/ml (as arsenious acid)
	Evaporation residue	≤ 30 µg/ml
	Heavy metals	≤ 1 µg/ml (as lead)
	Potassium permanganate consumption	≤ 10 µg/ml
Decalcomania/Folded paper and rubber made toys (excluding rubber pacifiers)	Arsenic	≤ 0.1 µg/ml (as arsenious acid)
	Heavy metals	≤ 1 µg/ml (as lead)
PVC coating	Evaporation residue	≤ 50 µg/ml
	Potassium permanganate consumption	≤ 50 µg/ml
Paint coatings, including PVC coatings, applied to the body or the components of toys (excluding printing inks used for paper containers)	Soluble heavy metals	≤ 60 mg/kg (antimony) ≤ 25 mg/kg (arsenic) ≤ 1000 mg/kg (barium) ≤ 75 mg/kg (cadmium) ≤ 60 mg/kg (chromium) ≤ 90 mg/kg (lead) ≤ 60 mg/kg (mercury) ≤ 500 mg/kg (selenium)
Small part metal, including jewelry	Lead	≤ 90 µg/ml
Rubber pacifiers	Evaporation residue	≤ 40 µg/ml
	Formaldehyde	Negative
	Heavy metal content (cadmium and lead)	≤ 10 µg/g each
	Heavy metals	≤ 1 µg/ml (as lead)
	Phenol	≤ 5 µg/ml
	Zinc	≤ 1 µg/ml

Textiles in Toys

SUBSTANCE	SCOPE	REQUIREMENT
Formaldehyde	Textiles in toys for children aged 24 months or under	≤ 16 µg/g
	Textiles in toys for children over 24 months that are in direct contact with the human body for some time during use	≤ 75 µg/g

Soap Bubble Solution

PARAMETER	STANDARD (SOAP BUBBLES)	
	Soap bubbles manufactured from straw-type toys (straw placed directly in mouth when soap bubbles are blown and constructed to prevent ingestion of bubble solution)	Soap bubbles produced by non-straw- type toys
Surface active agent	≤ 3%	≤ 3%
Fluorescent brightener	Negative	Negative
Heavy metals (as lead)	≤ 1 µg/g	≤ 1 µg/g
Volume of soap bubble solution	≤ 30 ml	≤ 600 ml

Ink and Similar Materials Used for Graphic Instruments

ITEM	PARAMETER	REQUIREMENT
1	Aged 3 to below 6 years old	<ul style="list-style-type: none"> Colorants from Schedule 1 of Japan Food Sanitation Law (JFSL) allowed otherwise migration not allowed
2	Aged 6 and up	<ul style="list-style-type: none"> Colorants from Schedule 1 of JFSL allowed otherwise migration is 10 times less relative to standard solution

Colorants under Schedule 1 of Japan Food Sanitation Law (JFSL)

ITEM	COLOURANT	ITEM	COLOURANT
1	Food Red No. 2 (Amaranth) and its aluminum Lake	7	Food Red No. 106 (Acid red)
2	Food Red No. 3 (Erythrosine) and its aluminum Lake	8	Food Yellow No. 4 (Tartrazine) and its aluminum Lake
3	Food Red No. 40 (Allura Red AC) and its aluminum Lake	9	Food Yellow No. 5 (Sunset Yellow CF) and its aluminum Lake
4	Food Red No. 102 (New Coccine)	10	Food Green No. 3 (Fast Green FCF) and its aluminum Lake
5	Food Red No. 104 (Phloxine)	11	Food Blue No. 1 (Brilliant Blue FCF) and its aluminum Lake
6	Food Red No. 105 (Rose Bengale)	12	Food Blue No. 2 (Indigo Carmine) and its aluminum Lake

For more information, please contact your local SGS representative or contact our global team consumer.products@sgs.com

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WHEN YOU NEED TO BE SURE

