



旭日實業有限公司
Early Light Industrial Co., Ltd.

A) Heavy Elements Requirement for Early Light (Category III Toy Materials)

No.	Element	Early Light Limits (unit: in ppm)	
		Total Limits	Soluble Limits
1	Lead (Pb)	20/30 *	20
2	Mercury (Hg)	ND (not detect)	5
3	Cadmium (Cd)	30	10
4	Chromium (Cr)	--	40
5	Barium (Ba)	--	350
6	Arsenic (As)	--	10
7	Antimony (Sb)	--	42
8	Selenium (Se)	--	200
9	Aluminum (Al)	--	70000
10	Boron (B)	--	15000
11	Cobalt (Co)	--	130
12	Copper (Cu)	--	7700
13	Manganese (Mn)	--	15000
14	Nickel (Ni)	10000	930
15	Strontium (Sr)	--	56000
16	Tin (Sn)	--	180000
17	Zinc (Zn)	--	46000
18	Chromium VI (Cr VI)	--	0.053
19	Organic tin	--	8

*** Remarks on Total Lead Requirement for Early Light**

No.	Element (Total)	Early Light (unit: in ppm)
1	Total Lead (Pb) for surface coating	20ppm
2	Total Lead (Pb) for substrate	30ppm
3	Total Lead (Pb) for jewelry & child care article	30ppm

Criteria	Toy Materials
Category	Category III
Toy Material Type	Scraped-off materials
Examples	Coatings (e.g., paints, varnishes, lacquers, inks, polymers, etc.)
	Plastics, rubbers, silicones and other polymeric materials
	Paper and paper board
	Textile materials
	Glass, ceramic, metallic materials
	Wood, fibre board, hard board, bone, leather, etc.

B) Heavy Elements Requirement for Early Light

(Category I & II Toy Materials)

		Early Light Limits(unit: in ppm)			
		Category I Dry, brittle, powder-like or pliable materials		Category II Liquid or sticky materials	
No.	Element	Total Limits	Soluble Limits	Total Limits	Soluble Limits
1	Aluminum (Al)	--	2250	--	560
2	Antimony (Sb)	--	45	--	11.3
3	Arsenic (As)	--	3.8	--	0.9
4	Barium Ba)	--	1,500	--	375
5	Boron (B)	--	1,200	--	300
6	Cadmium (Cd)	30	1.3	30	0.3
7	Chromium (III)	--	37.5	--	9.4
8	Chromium (VI)	--	0.02	--	0.005
9	Cobalt (Co)	--	10.5	--	2.6
10	Copper (Cu)	--	622.5	--	156
11	Lead (Pb)	20	2.0	20	0.5
12	Manganese (Mn)	--	1,200	--	300
13	Mercury (Hg)	ND	7.5	ND	1.9
14	Nickel (Ni)	10,000	75	10,000	18.8
15	Selenium (Se)	--	37.5	--	9.4
16	Strontium Sr)	--	4,500	--	1,125
17	Tin (Sn)	--	15,000	--	3,750
18	Organic tin	--	0.9	--	0.2
19	Zinc (Zn)	--	3,750	--	938

Criteria	Toy Materials	
	Category I	Category II
Category	Dry, brittle, powder-like	Liquid or sticky
Definition		
Examples	o Compressed paint tablets	o Liquid paints
	o Colouring pencil cores	o Finger Paints, varnishes,
	o Chalk	o Liquid Ink in pens
	o Crayons	o Liquid adhesives
	o Other solid materials intended to	o Glue sticks
	o Pliable modeling clays and	o Slimes
	o Plaster of Paris	o Bubble solutions
		o Other accessible liquids

c) Phthalates Requirement for Early Light

No.	For all plastic and soft materials, and coatings	CAS #	Limit (in ppm)
1	Dibutyl Phthalate (DBP) ◦	84-74-2	≤ 300 ppm
2	Benzylbutyl Phthalate (BBP) ◦	85-68-7	≤ 300 ppm
3	Bis-(2-ethylhexyl) Phthalate (DEHP) ◦	117-81-7	≤ 300 ppm
4	Diisononyl Phthalate (DINP) ◦	68515-48-0	≤ 300 ppm
5	Diisodecyl Phthalate (DIDP)	26761-40-0	≤ 300 ppm
6	Di-n-octyl Phthalate (DNOP)	117-84-0	≤ 300 ppm
7	Di-n-hexyl phthalate (DnHP) ◦	84-75-3	≤ 300 ppm
8	Diisobutyl phthalate (DIBP) ◦	84-69-5	≤ 300 ppm
9	Di-n-pentyl phthalate (DPENP) ◦	131-18-0	≤ 300 ppm
10	Dicyclohexyl phthalate (DCHP) ◦	84-61-7	≤ 300 ppm
11	Diisoheptyl Phthalate (DIHP)	41451-28-9, 71888-89-6	≤ 300 ppm
12	Bis(2-methoxyethyl) (DMEP)	117-82-8	≤ 300 ppm
13	Diisopentyl Phthalate (DIPP)	605-50-5	≤ 300 ppm
*	DBP + BBP + DEHP + DIBP		≤ 300 ppm
*	DINP + DNOP + DIDP		≤ 300 ppm
*	DIHP + DMEP + DIPP + DPENP + DnHP		≤ 300 ppm
14	Di-isooctyl phthalate (DIOP)	27554-26-3	< 1000 ppm
15	Dimethy ortho-Phthalate (DMP)	131-11-3	< 1000 ppm
16	Diethy ortho-Phthalate (DEP)	84-66-2	< 1000 ppm
17	Dipentyl ortho-Phthalate (DPP)	131-18-0	< 1000 ppm
18	Dinonyl ortho-Phthalate (DNP)	84-76-4	< 1000 ppm
19	Dipropyl phthalate (DPrP)	131-16-8	< 1000 ppm
20	Dibenzyl phthalate (DBzP)	523-31-9	< 1000 ppm
21	Diphenyl phthalate (DPhP)	84-62-8	< 1000 ppm
22	Bis(2-methoxyethyl) phthalate (DMEP)	117-82-8	< 1000 ppm
23	Diisopentylphthalate (DIPP)	605-50-5	< 1000 ppm
24	N-pentyl-isopentylphthalate	--	< 1000 ppm
25	[Phthalato(2-)]dioxotrilead (dibasic lead phthalate)	69011-06-9	< 1000 ppm
26	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	< 1000 ppm