



जनस्वास्थ्य तथा वातावरण प्रवर्द्धन केन्द्र

Center for Public Health and Environmental Development

Bridging people with science and technology for healthy living and environmental development

Press Release

TOXIC CHEMICALS STANDARD ENACTED FOR CHILDREN TOYS IN NEPAL

Date: 16th January 2017, Kathmandu, Nepal

On behalf of entire children of Nepal, Center for Public Health and Environmental Development (CEPHED) would like to wholeheartedly thank and welcome the Government of Nepal's Child Friendly, Health and Environment friendly decision of enacting **Toys Standard** through publishing a gazette notification today ensuring the Right to Play Safe and Healthy of children, one third of total population of Nepal.

In exercising the power conferred by the Sub Article (3) of Article 7 of Environment Protection Act 1997 shall come into effect from 181 days from the date of publication of the notice by the Government of Nepal, Ministry of Population and Environment (MOPE) has set the Mandatory Standard limiting the maximum value of some 12 toxic elements and chemicals. Standard also includes broad definition of children toys, testing procedure and mechanism of certification in case of importing toys as well as domestic toys from government accredited laboratories. This standard will take effects automatically after 181 days of date of publication of this gazette notice and limiting the maximum limit of the following chemicals in the Children Toys for all types of imported, produced, stored sold, distributed and used in toys in Nepal.

S.No.	Parameters	Standard (ppm) Maximum Value	Standard (mg/kg) Maximum Value
1	Cadmium (Cd)	75	75
2	Chromium (Cr)	60	60
3	Lead (Pb)	90	90
4	Mercury(Hg)	60	60
5	Zinc (Zn)	3.75	3.75
6	Antimony (Sb)	60	60
7	Arsenic (As)	25	25
8	Barium (Ba)	1000	1000
9	Selenium (Se)	500	500
10	Bromine (Br)	< 100	< 100
11	Bis Phenol A (BPA)	BPA Free	BPA Free
12	Phthalates	< 100	< 100

Effective implementation of this mandatory standard of children toys has been demanded by Executive Director and Environment Scientist of CEPHED from all concerned government agencies, industries, business communities through importing, producing, and sale and distribute toys that fully comply the standard. Enacting the standard encompassing some about a dozen of toxic chemicals that hinders



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physical, mental and intellectual growth of children will not only ensure their right to play safe but also minimizes the negative impacts on health and environment. The standard enacted is a progressive step taken by the Government of Nepal, Ministry of Population and Environment (MOPE) is really an important success of our 3.5 years of campaign struggle, working in collaboration with concerned government agencies and advocating for the same strongly felt by Mr. Sah.

In this context of continued exposure to these toxic chemical contained in the toys causing damage to physical, mental and intellectual growth of our children, the future generation's right to play safe has been restricted, it was strongly felt to create a conducive environment whereby realizing full growth potential of the children by eliminating these exposure possibility, Government of Nepal, Ministry of Population and Environment (MOPE) with full expert consultations and soliciting comments as well as suggestions from all ministries and stakeholders has enacted a very comprehensive mandatory toys standard is really a matter of pleasures for all of us and I will play an active coordinating roles with all concerned government agencies and business communities towards its effective implementation said Dr. Bishwa Nath Oli, Secretary at Ministry of Population and Environment (MOPE).

Enacting of this toys standard not only help to ensure our children's future but also help our nation to fulfill its international obligations towards realizing the objectives of different important International Conventions Viz: Convention on The Right of the Child (CRC 1989), Convention on the Elimination of All Forms of Discrimination against Women (CEDAW-1979) and Strategic Approach to International Chemical Management (SAICM 2006) to which we are party since long time as believed by chemical safety campaigner, leading study based advocacy for ensuring children right Mr. Sah, Executive Director of CEPHED and also urge as well as expect with all for the effective implementation through showing their truth and honesty actions.

Thank you

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Translation of Nepal Gazettes Notice of Children Toys Standard

Government of Nepal

Notice of Ministry of Population and Environment (MOPE)

Nepal Gazette (Kand 66, Number 48, Part 5, Dated 16th January 2017)

In exercising the power conferred by the Sub Article (3) of Article 7 of Environment Protection Act 1997 shall come into effect from 181 days from the date of publication of the notice by the Government of Nepal, Ministry of Population and Environment (MOPE) has set the Mandatory Standard limiting the maximum value of following elements including heavy metals and chemical compounds. Toys that does not comply fully the standard have been strictly prohibited to Import, Produce, Store, Sale, Distribute and even used inside Nepal. This standard will take effects automatically after 181 days of date of publication of this gazette notice and limiting the maximum value of the following chemicals in the Children Toys for all type of toys in Nepal.

S.No.	Parameters	Standard (ppm) Maximum Value	Standard (mg/kg) Maximum Value
1	Cadmium (Cd)	75	75
2	Chromium (Cr)	60	60
3	Lead (Pb)	90	90
4	Mercury(Hg)	60	60
5	Zinc (Zn)	3.75	3.75
6	Antimony (Sb)	60	60
7	Arsenic (As)	25	25
8	Barium (Ba)	1000	1000
9	Selenium (Se)	500	500
10	Bromine (Br)	< 100	< 100
11	Bis Phenol A (BPA)	BPA Free	BPA Free
12	Phthalates	< 100	< 100

Definition of Toys (included into the Standard)

Following items used to play by the group of people from 0 to 16 Years age can be considered as TOYS to be regulated under this standard.

1. Construction sets
2. Dolls and miniatures
3. Flying, Scrolling and walking Vehicles
4. Puzzles
5. Collectibles



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6. Promotional Merchandise
7. Electric and Electronic Toys
8. Educational (writable and erasable)

Testing Mechanism (mentioned in the published Toys Standard Gazette Notification)

- (a) All toxic heavy metals should be tested using SRF Spectroscopy or AAS
- (b) BPA should be tested using HPLC
- (c) Phthalate should be tested using GC / MS

Certificate and Declaration of Chemicals Constituents :

- (a) For importation of children toys from other countries, importer need to produce the testing certificate of each batch toys from accredited laboratory from the respective government agencies from the importing countries. Toys that comply the set standard limits are only allowed to import into Nepal.
- (b) In case of domestic industry produced Toys, manufacturers are also required to produce test results for each batch produced from the government accredited laboratories and can only sell and distribute if they fully comply the standard.

With permission
Dr. Bishwa Nath Oli
Secretary, Government of Nepal



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Result Summary of CEPHED's Study of Heavy Metals in Children Toys, 2013

CEPHED's "Study of Heavy Metals in Children's Toy and Campaign for Safe Play in Nepal" supported by UNEP Eco Peace Leadership Center (EPLC), Yuhan-Kimberly University, South Korea in 2013. Total 100 sample were purchased from different markets like Foot path, Street vendors, Educational enterprises, Super Market, Departmental Stores, Dedicated shops supplying toys to the most of schools from various places of Kathmandu, Lalitpur, Bhaktapur and Kavre and places like Asan, Mahaboudha, Banepa, Bhaktapur, Pulchowk, Koteshwor, Lagankhel, Gowarko, Jaulakhel Patan, Mahapal, Patan, New Baneshwor market. Purchased sample were composed of different material such as plastic (63%), metal (11%), wood (9%), rubber (7%), fabric (4%), clay (3), foam (2%) and paper (1%) and are of single and multiple colors tested at Nepal Handicraft Testing Laboratory, operated under Public Private Partnership (PPP) mode by Federation of Handicraft Associations of Nepal (FHAN) and Nepal Bureau of Standard and Metrology (NBSM), Ministry of Industry, Government of Nepal using XRF (X-Ray Fluorescence) Spectroscopy. Following key findings from the conducted laboratory testing for the chemical presence in studied children toys samples were duly conveyed to all concerned government agencies and tirelessly advocates for necessary act, regulation, standard, authorized regulatory government agency along with establishment of testing mechanism.

1. Among tested 100 samples, 54% of samples have presence of the toxic heavy metals i.e. lead, mercury, cadmium, chromium or bromine.
2. 28% of samples have **Lead** content, of which 46.42% of samples have lead content higher than US Standard of 90 ppm. Lead content ranges from 15.2ppm to 8305.8 ppm. 1% of samples have highly toxic **Mercury** 4.3 ppm. 9% of sample has **Cadmium** contain ranging from 9 ppm to 409.5 ppm. Of which 33.33% of sample has cadmium contain higher than US Standard of 75 ppm. 40% of sample has **Bromine** contain ranging from 3.6 ppm to 3923 ppm. 14% of sample has **Chromium** contain ranging from 9.6 ppm to 2052.2 ppm. Of which 42.86% has chromium contain higher than the US Standard of 60 ppm.
3. 54% have at least 1 chemicals, 27% of have at least 2 chemicals, 11 % have at least 3 chemicals and 1% have presence of up to four toxic chemicals.
4. Only 29 per cent has the age wise precautionary message.

Toxic Chemicals in Children Toys	Major Health Impacts
Lead (pb)	Retard physical, mental & Intellectual growth (IQ), permanent brain damage and death
Cadmium (Cd)	Delay brain development, bone pain and fracture, kidney problem
Mercury (Hg)	Nerve, brain and kidney damage; tremors, vision changes, deafness, muscle incoordination and memory loss; degradation of learning abilities etc.
Chromium (Cr)	Allergic reactions, weakened immune systems, Kidney and liver damage, genetic changes, Lung cancer and on high exposure even lead to death.
Bromine (Br)	Irritates eyes and throat, malfunctioning of the nervous system and disturbances in genetic materials.
Phthalates	Impact on neurodevelopment stage, behavioral change, aggressiveness and problems with attention. Impacts on the reproductive system, kidneys, liver, and respiratory system.
BPA	Cancer causing and developmental deficit, EDCs
Arsenic (As)	increased risks of cancer in the skin, lungs, bladder and kidney
Antimony (Sb)	sudden infant death syndrome, cause heart and lung problems, stomach pain, diarrhea, vomiting and stomach ulcers
Selenium (Se)	hair loss, irritability, itching of skin, nausea and vomiting, unusual tiredness and weakness

Full report of CEPHED` Children Toys study can be downloaded from

<http://cephed.org.np/pdf/31420819801.pdf>