

Tech Talk

Monthly Newsletter by Spectro Group

Director's Desk

With great enthusiasm, we would like to thank you for making our Newsletter a success. Your positive response and feedback for our Newsletter encourages us to present before you the best current articles. We are happy to share with you, our monthly Newsletter "Tech-Talk" which is designed to be an elemental source for leading information related to developing technologies, ingenious techniques and innovative approaches. This newsletter is contemplated to highlight electrifying forthcoming activities and resources of our organization.



Kuldeep Dhingra
Managing Director



Sushant Gupta
Executive Director

We invite you to a new paradigm created by Spectro to examine the resources on our website which includes details of our amplifying services using science to harness cutting-edge technologies and experience the Spectro difference.

Brief about Spectro

During the span of 20 years, Spectro Group of companies has created a globally recognized position in the field of Testing, Calibration, Auditing, Certification, Training, Inspection, R&D, Special Purpose Equipment Designing & Manufacturing and various other activities.

Spectro Analytical Labs Ltd. is a self-reliant Multidisciplinary Laboratory providing top class services. We are also in a process to explore services in the field of Geo-Technical, Welding, Safety Compliance, Clean Development Mechanism, Mining, Environment, etc.

Spectro Lab Equipments (P) Ltd. is one of the reputed manufacturers of Environment & Coal Laboratory Equipments and also deals with their sale and service setups. We are the exclusive manufacturers of equipments which include RCPT, Bomb Calorimeter, Ash Fusion Tester, Salt Spray Chamber, Proximate Analyzer and Stress Relaxation Tester.

Spectro Weld Institute (P) Ltd. provides exemplary short-term courses and full time courses on specialized topics. The welder, if required can get certification by IWS (Indian Welding Society). We are creating a pool bank of trained and certified welders for ready deployment for projects in India & Abroad.

In this Issue

- Ü Editorial
- Ü Brief about Spectro
- Ü News: Toxic Toys: Jeopardizing Children's Health
- Ü Article: Lead & Human Health- A matter of contention
- Ü Spectro Group of Companies

Toxic Toys: Jeopardizing Children's Health

Toys are generally taken for granted but this may no longer be the case if we really have some concern about the health of our young children.

A number of consecutive laboratory studies have revealed the presence of phthalates, which is a highly toxic chemical present in toys sold in the Indian market. These toxic chemicals put children at high risk. Scientific evidences has proved that exposure to phthalates can cause a variety of health problems ranging from asthma to pre term birth. Because of this reason, US and European Union regulate the use of such substances in toys.

Think before you buy toys for toddlers as even the branded plastic toys sold in the Indian market can cause asthma, lung problems and reproductive problems in children due to high toxic levels, warns a study conducted by the Centre for Science and Environment (CSE).

Phthalate are chemical plasticizers that have been widely used since the 1950s to soften plastics that would otherwise be brittle and crack when bent. Because phthalates are not chemically bound to the plastics they are added to, they are continuously released into the air or food or liquid.



Major Health Hazards of Phthalates

- Premature birth
- Birth defects of male sex organs
- Reduced fertility
- Prostate and testicular cancer
- Learning disabilities
- Behavior problems
- Asthma and allergies
- Early puberty in girls
- Breast growth in boys
- Obesity and diabetes

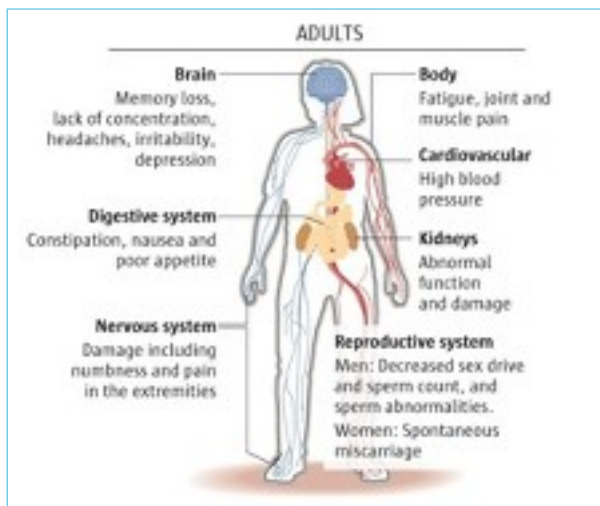
Twenty four children's toys and child care articles available in the local market of India were analyzed for eight phthalates as children toys are plasticized with phthalates. All toy samples showed the presence of one or more phthalates including di-(2-ethylhexyl) phthalate (96% of the samples), di-iso-nonyl phthalate and di-iso-decyl phthalate (42% of the samples) at a concentration ranging from 0.1% to 16.2%. Soft toys contain higher levels of phthalates as compared to hard toys as primary function of phthalates is softening of hard plastic material.

With the diverse network of Spectro you can rely on us to test for compliance against RoHS & REACH testing, to name a few. We are accepted by the Consumer Product Safety Commission (CPSC) as an accredited laboratory. We also conduct heavy metals analysis.

References:
www.cseindia.org
indiatoday.in

Lead & Human Health- A matter of contention

Lead, which is a heavy metal, is intermittently present in our environment. It is one of the significant ingredients in the industrial enterprises and consumer products. Nonetheless, if lead is handled improperly, it can be the most severe neurotoxins to humans.



If children, especially below the age of 6 years are exposed to it, becomes the most vulnerable to even low levels of lead. If lead becomes available, the body gets confused between toxic metals and the essential elements (like calcium) and starts using lead to make muscles, bones, brain connections, etc.

The emissions from burning gasoline and air pollution are the major sources of exposure. Apart from fuels, lead exposure occurs from canned food, cosmetics, paints, batteries & plastic recycling industry, etc. Cosmetics such as kajals, talcum powder, hair colours, lipsticks; contain high levels of lead. Ash dumps near Thermal Power Plants carry lead to the ground water. All the aforementioned sources of lead are across the board and contribute at a much higher level in comparison to Maggi noodles.

Though, the risk to this toxic metal has decreased in India to an extent since the mid of 1990s. In the year 1994, low level fuel was introduced in metro cities and on February 2, 2000 unleaded fuel was mandated nationwide. Bharat Standards of emission and fuel quality standards which further regulates the lead emissions has also been endorsed.

Lead exposure

About 510,000 U.S. children ages 1 to 5 have elevated blood lead levels, which can accumulate over months and years and cause serious health problems.

Effects on children

- Kids absorb up to 70 percent of lead, adults about 20 percent
- Often undetected; no obvious symptoms
- Can lead to learning disabilities, behavioral problems, malformed bones, slow growth
- Very high levels can cause seizures, coma, death

Sources

- Lead-based paint, contaminated dust in homes built before 1978
- Drinking water from lead pipes
- Contaminated food
- Soil (lead does not biodegrade, decay)
- "Toys"

What parents can do

- Have child screened if there is concern of lead exposure
- Frequently wash child's hands, toys, pacifiers
- Only use cold tap water for drinking, cooking
- Test paint, dust in home if it was built before 1978

As of now, there is no standard legislation regulating lead levels in children's product and the household paint. The Indian Bureau of Standards only recommends a limit of 1000 ppm for the paint industry but it has not enforced it. Lack of legislation and implementation of existing legislation has developed high levels of lead pollution in India.

References

ETHealthworld.com
www.Hu ngtonpost.in

Spectro Group of Companies



Major Activities

| Testing | Calibration | Training | Inspection | R&D | Automation | Reverse Engineering |
|---------|---------------------------------|----------|------------|-------------------------------|------------|---------------------|
| | Ü Metals & Alloys | | | Ü Building Materials | | |
| | Ü Non Destructive Testing | | | Ü Minerals & Chemicals | | |
| | Ü Rubber & Polymers | | | Ü Leather & Textiles | | |
| | Ü Food and Agro Products | | | Ü Water & Environment | | |
| | Ü Coal, Solid Fuels & Petroleum | | | Ü Paper & Packaging Materials | | |
| | Ü Electrical & Electronics | | | Ü Hazardous Substances | | |
| | Ü Pharmaceuticals & Drugs | | | Ü Clean Room Validation | | |

Our Joint Venture Labs

Spectro Testing & Research Center Pvt. Ltd. (Jaipur)

Spectro Research Lab Ventures (P) Ltd. (Kanpur)

Spectro Testing (P) Ltd. (Jammu)

Spectro SSA Labs (P) Ltd. (Mumbai)

Spectro Global Experts Pvt. Ltd. (Bhubaneswar)

Spectro Shyam Labs (P) Ltd. (Kolkata)

Project Sites

PATA (Uttar Pradesh)

Roorkee (Uttarakhand)

Durgapur (West Bengal)

Jaisalmer (Rajasthan)

Hyderabad (Telangana)

Patna (Bihar)



We will be pleased to receive your valuable queries, feedback and suggestions on our email ID: newsletter@spectrogroup.com

CIN : U74220DL1998PL C092698

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