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# Tech Talk

Monthly Newsletter by Spectro Group

## Director's Desk

We take this opportunity to thank you each one of you for making our Newsletter a success. We are pleased to share with you the new edition of 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 underline electrifying forthcoming activities and resources of our organization.



**Kuldeep Dhingra**  
Managing Director



**Sushant Gupta**  
Executive Director

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- Spectro Group of Companies

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

## Brief about Spectro

Spectro commenced to serve in the year 1995 and 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. Steadily building a reputation for reliability and fast turnaround, the organization grew rapidly and today we feel proud to have our presence all over the country.

## Medicines Stored In PET Bottles Are In Danger

As per a recent study, it has been concluded by the laboratory tests, ordered by the health ministry and endorsed by the country's top statutory authority on standards for medicines, the Drugs Technical Advisory Board (DTAB) that plastic bottles contaminate the medicines. PET (polyethylene terephthalate) bottles contaminate the medicines which are stored in these. Based on the results of the lab tests, the board has recommended banning the bottling of medicines in plastics and PET meant for vulnerable groups, like children and pregnant women.



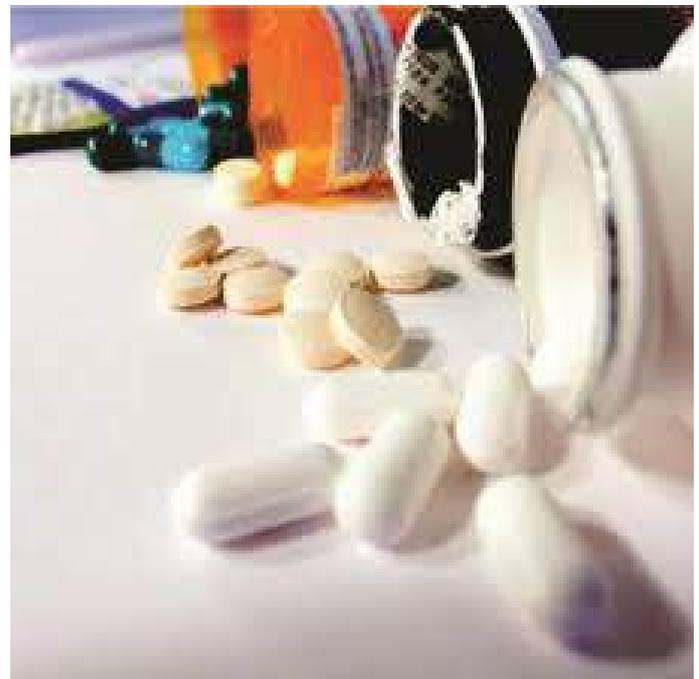
The study, undertaken on the instructions of the health ministry, was conducted by the government's All India Institute of Hygiene and Public Health (AIIPH&PH). It found that four heavy metals- lead, antimony, Di-(2-ethylhexyl) phthalate (known as DEHP) and chromium- had leached into the five liquid medicine formulations that were tested, the leaching occurred even at ambient room temperatures.



Doctors have found proof that Polyethylene Terephthalate (PET) bottles used for storing medicines pose health hazard to people, especially women. Also, medicines packed in PET bottles can have adverse effects on children, women in their reproductive age and the geriatric population. Dr Seema Singhal, assistant professor, Department of Obstetrics and Gynaecology, All India Institute of Medical Sciences (AIIMS), said, "PET bottles may have long-term medical consequences for women, especially in the reproductive age group and children."



She said: "The release of bisphenol A (BPA) and additives like di-ethylhexyl phthalate can blend with the contents and lead to health issues like impaired immune development, increased miscarriage rates, pre-term birth, and low birth weight. BPA acts as a faux-estrogen, and can cause chromosomal abnormalities, birth defects and developmental disabilities in uterus and childhood."



#### Reference

The Wire

India Today

Business Standard

## Detergent Bars- are they same?

Detergent bars that were used earlier were made from natural materials and they looked almost the same, a brownish cube. Now a days, detergents are a mixture of synthetic chemicals and additives cooked up in a huge chemical plant. Moreover, brown cubes have been converted into colourful bars and their efficiency has comparatively increased and their market has become bigger. In order to find out if manufacturers of detergent bars are complying with regulatory standards and which one performs better on parameters that a consumer may consider before buying, Talking about the performance, consumers should note that higher efficiency in cleaning may be at the cost of the environment. Ingredients like phosphate and sodium tripolyphosphate (STPP) are known to have unfavorable effects on the environment. Low-cost ingredients are also used to replace the phosphate in detergent bars, but even they may be harmful for the environment.

All types of soaps for household purpose were traditionally made of natural vegetable oils and edible fats. These raw materials are now increasingly scarce. Moreover, soaps made from natural elements had their limitations as they were not much effective when used with hard water. Hence, synthetic detergents or non-soapy detergents (NSD) were formulated with components like surface-active agents and complementary components like builders. In India, NSDs are produced mainly from sodium alkyl benzene sulphonate and there is a separate category of Indian Standards, IS: 9985:1981, for this.



It has been observed that due to technological advancement and continuous research and development, manufacturers are using different ingredients in their composition that includes ionic and un-ionic compounds and other builders and additives.

The most important ingredients in detergents are chemicals called surfactants. Water alone cannot clean clothes because it does not attach to molecules of grease and dirt. That's because water has something called surface tension. Water molecules tend to stick together in drops. To make water wash better, its surface tension needs to be reduced so it wets things more uniformly. And that's what a surfactant does. The surfactants in detergents are made of molecules that have two different ends. One end is strongly attracted to water; the other is attracted to dirt and grease. The surfactant molecules help water to spread over surfaces, get a hold of grease, break it up, and wash it away.



### References

By Valenti Organics  
Consumer Voice

# Spectro Group of Companies



Spectro Lab Equipments (P) Ltd. is prompted by a team of committed professionals who have years of experience and have not lost any opportunity to prove their ingeniousness. SLE is one of the prominent manufacturers of Environmental and Coal Laboratory Equipments and also deals with their sale and service setups. It also provides support in the field of Testing equipments and instruments

## Major Activities

Testing      Calibration      Training      Inspection      R&D      Automation      Reverse Engineering

- ⇒ Metals & Alloys
- ⇒ Non Destructive Testing
- ⇒ Rubber & Polymers
- ⇒ Food and Agro Products
- ⇒ Coal, Solid Fuels & Petroleum
- ⇒ Electrical & Electronics
- ⇒ Pharmaceuticals & Drugs
- ⇒ Building Materials
- ⇒ Minerals & Chemicals
- ⇒ Leather & Textiles
- ⇒ Water & Environment
- ⇒ Paper & Packaging Materials
- ⇒ Hazardous Substances
- ⇒ Clean Room Validation

## Our Joint Venture Labs

## Project Sites

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

Chennai (Tamil Nadu)

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

Roorkee (Uttarakhand)

Spectro Testing (P) Ltd. (Jammu)

Durgapur (West Bengal)

Spectro SSA Labs (P) Ltd. (Mumbai)

Jaisalmer (Rajasthan)

Spectro Global Lab Pvt. Ltd. (Bhubaneswar)

Patna (Bihar)

Spectro Shyam Labs (P) Ltd. (Kolkata)

Ranchi (Jharkhand)



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

**Girija**

Editor

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