LEAD IN PAINTS

• Lead is one of the 300-odd ingredients used to make paints; used as pigment to impart color.

• It makes the paint durable and corrosion resistant, and speeds drying of the paint.

• Lead chromate (or chrome yellow) and lead carbonate (or white lead) are widely used as pigment.
LEAD IN PAINTS: WHY CSE TESTED

• Lead causes serious damage to health

• Lead damages the central nervous system and the brain; impairs growth, damages the kidney, lowers sperm count

• Children are most susceptible to lead poisoning; can cause anemia, jaundice and hearing loss
LEAD IN PAINTS: THE STUDY

PHASE I:
CSE tested 25 samples of popular enamel paints for lead content.

- The brands were Apcolite (Asian Paints), Nerolac (Kansai Nerolac Paints), Luxol (Berger Paints India), Superlac (Shalimar Paints) and Dulux (ICI India). The colours were yellow, orange, green, black and white.

- The lead concentration varied from zero to 184,733 ppm, the highest amount being present in the deep orange paint of Superlac brand.

- Of the brands tested Dulux paints had lead below the 1000 ppm limit
LEAD IN PAINTS: THE CSE STUDY

Phase I:

• 72 per cent of the samples contained lead much higher than the BIS standard of 1000 ppm
• CSE wrote to companies asking for information about lead in paints. Response from companies that they were working to reduce lead in paints. Gave deadline
LEAD IN PAINTS: THE CSE STUDY

• Phase II: 
  *CSE decided to test the paints again -- 8 samples were tested*

• Asian Paints lead content in deep orange and black dropped to **29.24 and 28.71 ppm lead**, from the earlier **59,149 ppm and 17,720 ppm** respectively

• Nerolac too had reduced the lead levels in yellow and orange

• **Berger** and **Shalimar** exceeded their earlier lead content
LEAD IN PAINTS: STANDARDS

• The BIS has voluntary standards for 1000 ppm of lead in paints

• After studies on lead in paints- BIS drafted rules to scale down the lead limit for decorative paints to 90 ppm (90 mg/kg) (best global practice)

• **BIS rules are yet to be notified**

• DIPP formed a committee to make rules but not much has happened there
Phthalates in toys: 2008

• Phthalates are used as plasticisers – substances added to plastics to increase flexibility

• Some have severe health impacts. Need to be controlled and not allowed in children’s toys

• CSE tested 24 samples of major brands
We found:

• 46% samples had phthalates exceeding EU limit of 0.1 per cent by mass of plasticised material

• Many toys, which had phthalates – DINP, DEHP – were those used as teethers or toys that children would put in their mouth (like squeaky toys made by Funschool India)

• The majority of toys were made in China – has 70 per cent of the toy market of India, does not regulate phthalates
What has happened

• BIS standards did not include phthalates
• CSE study led government to consider options
• In April 20, 2011, BIS released draft regulations on standards on phthalates in toys
• The draft says that DEHP, DBP and BBP will be regulated to be less than or equal to 0.1% in all plastic toys and childcare products..
• Global best standard
Standard: awaiting

- Standard still draft
- Awaiting finalization: industry pressure to hold up draft
- But standard will be voluntary. Most manufacturers do no register for the ISI mark or follow voluntary standard
- Ministry of Commerce has to issue notification making phthalate standard mandatory
- Meanwhile. **Children are at risk.**
Hidden dangers: new evidence

- Chemicals and toxins – OC pesticides, phthalate, small particulates, etc are now classified as obesogens
- They make fat people fatter
- Fat cells store energy and release it when needed; fat cells are also endocrine organs – releasing hormones related to appetite and metabolism
- Now understood obesogens affect this mechanism; make people fatter, stop us from getting thinner
Chemical trespass

• Need to understand role of modern toxins in our homes, our bodies
• No regulation on chemicals being produced
• No registration, no process standard
• But chemical trespass into our bodies must be stopped
• One generation to another generation: chemicals become more toxic – comparative risk analysis needs to be basis of regulation
• Need studies, need regulations