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I. Introduction

Empire State Consumer Project, Inc. (ESCP), founded in 1971, is a registered 501c3 Not-for-Profit Organization dedicated to reducing the use of pesticides and other chemicals toxic to human and environmental health. We accomplish this by educating consumers and industry, conducting product testing and reporting, and by advocating for regulation where needed to protect the public interest.

One of our most important goals is the protection of children’s health and safety. Most parents trust products to be safe that are designed for use by this most vulnerable group of consumers. They also expect that products that should not reach the hands of children be adequately marked with warnings for their intended users. The purpose of our annual report is to highlight products that have been shown to be unsafe for children because children have been harmed or that contain ingredients that are proven to be unsafe for children. In some cases, products that are used by children are marked ‘Not a Toy’ and may fall outside of government regulations for toy safety.

The Consumer Product Safety Commission (CPSC) reports that in the three year period from 2008 through 2010, there were 333 deaths of children under 5 from nursery products, or an average of 111 annually. For calendar year 2012, there were 11 reports of toy-related deaths and 265,000 toy-related injuries treated in US hospital emergency departments.

Empire State Consumer Project works with Paradigm Environmental Services in Rochester, New York for its product testing. Paradigm is a full service environmental laboratory specializing in environmental chemistry, asbestos, lead-based paint and consumer product testing (http://www.paradigmenv.com/index.asp).

New information on the chemicals in this report is being discovered all the time and we encourage our readers to consult websites for the most up-to-date information on the health effects related to these chemicals. We encourage you to obtain this information from objective sources that have no financial interests in a specific product. It is also very important to make sure the information you obtain is current because many websites are out-of-date.

The Consumer Product Safety Commission website may be useful to you: www.cpsc.gov.

We urge our readers to exercise caution and consider good public health practices. Avoiding exposure to toxic chemicals whenever possible is prudent and protective.
II. Nursing Pillows

U-shaped nursing pillows have long been popular among breastfeeding mothers for their ability to keep the mother’s arms rested while feeding. Unfortunately, some parents leave babies sleeping on the pillows, sometimes causing suffocation and death of the infant. As always, babies should never be left unattended or sleeping with pillows or toys. Infants are not able to turn their bodies to avoid suffocation.

An excerpt from an article in Consumer Reports on child deaths related to nursing pillows:

According to the Journal News, Westchester County (N.Y.) officials are warning parents about the use of crescent-shaped infant and nursing pillows after the pillows were found in the cribs of three county children who died in 2006. While the cause of death in all three cases was determined by the Medical Examiner to be the result of Sudden Infant Death Syndrome (SIDS), a report by the county's Child Fatality Review Team said it was significant that each case involved the improper use of a crescent-shaped pillow in the infant’s sleeping environment.

Two of the deaths involved infants found propped up or resting in some fashion on crescent-shaped pillows. A third case involved the death of a child in a crib with a crescent-shaped pillow in close proximity to the child.

Crescent pillows are intended for nursing mothers and include the popular Boppy, which says on its website, “We do not recommend using any of the Boppy pillow products for babies while sleeping.”

Resources:

III. Crib Safety

Empire State Consumer Project feels that stores selling products that should not be used in cribs should not display these items in cribs in their stores or in advertising. The CPSC recommends against it. In 2000, seven major retailers agreed not to show unsafe crib practices in their stores, ads, and catalogs. Today, many of them and others still do.

- A crib should have a firm mattress that fits the crib tightly and a fitted sheet. A tight fit means no gaps or spaces. You should not be able to fit more than two fingers between the mattress and the crib side.

- Do not use crib rail bumpers, as they pose a suffocation hazard. In Maryland, it is illegal to sell crib bumpers.

- Always place your baby on her back to sleep for both naptime and nighttime. Never use a sleep positioner, as they are unnecessary and can be deadly. Babies have suffocated in sleep positioners.

- Proper assembly of cribs is paramount. Follow the instructions provided and make sure that every part is installed correctly. If you are not sure, call the manufacturer for assistance. When using a crib, regularly check to be sure all parts are secure. Make sure the crib has no loose or missing parts or slats. Broken hardware, or even a missing screw, can result in a detached side rail, allowing your baby to get caught between the crib mattress and side rail.

- Only repair a crib with parts provided by the manufacturer. Makeshift repairs can create new, deadly hazards.

- Set up play yards properly according to manufacturer’s directions. Only use the mattress pad provided with the play yard; do not add extra padding.

- Never place a crib, bassinet, or play yard near a window, as that creates a serious fall hazard and a risk of strangulation on window blind cords.

- Never place a corded baby monitor near a crib, as babies can strangle on cords.

- When buying a crib or other baby product, always fill out and return the product registration card so you can be notified directly if there is a recall or safety alert.

Adapted from materials from the Consumer Product Safety Commission, Keeping Babies Safe, and the American Academy of Pediatrics...

- To prevent suffocation, never place anything in the crib with a baby. Blankets, pillows, and toys should not be used in a crib. Dress baby in an infant sleeper for warmth.

- A crib should meet all current safety standards. More than 11 million cribs and numerous bassinets and play yards have been recalled since 2007. Check www.cpsc.gov to see if your crib has been recalled.
In August 2013, the Consumer Product Safety Commission issued new safety standards for play yards. These standards are different than those for cribs:


In September 2013, the CPSC approved new safety standards for bassinets and cradles:

IV. Heavy Metals

Lead

Lead is a toxic metal used in a variety of products and materials including paint, vinyl, mini-blinds, pipes, leaded crystal, dishware, ceramic coating, synthetic turfs and jewelry.

When lead is absorbed into the body it can cause serious damage to organs like the brain, kidneys, nerves and blood cells. Lead poisoning is especially harmful to children under the age of six. The US Consumer Product Safety Commission regulates lead in children’s products at 100 ppm (parts per million).

We purchased this bracelet from Arlene’s Costumes in Rochester, NY and had it tested for lead and cadmium. The bracelet contains 29.2 ppm of cadmium and 134,000 ppm of lead.

Arlene’s Costumes told us that they were not aware that Certificates of Compliance are required from their vendors, who import many goods. This product was imported by their vendor, California Costumes and was made in China. A Certificate of Compliance is a document required of manufacturers, importers, and private label sellers on all products manufactured since November 12, 2008. It states that the product meets all CPSC standards and rules. Although certificates are not proof that the products meet the CPSC standards, children’s products require third party testing for verification.

Resources:


CPSC Announces New, Lower Limit for Lead Content in Children’s Products

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission (CPSC) voted (3-2) that there was insufficient evidence to make a determination that manufacturers of children's products sold in the United States could not meet a total lead content limit of 100 parts per million (ppm) for a product or product category. The new total lead content limit, which is called for in the Consumer Product Safety Improvement Act (CPSIA), goes into effect on August 14, 2011 for manufacturers, importers, retailers and distributors of children’s products.

Through the CPSIA, Congress set tough new levels for lead content in products designed or primarily intended for children 12 and younger. Lead is a heavy metal that is toxic for children, and associated with lowered levels of learning, impaired hearing, brain damage and, at high levels, can be fatal.

Congress directed CPSC to phase in the reduced levels for lead content over a three year period, starting with 600 ppm on February 10, 2009. The level dropped to 300 ppm on August 14, 2009. Finally, Congress directed the total lead content limit be set at 100 ppm, unless the Commission determined it was not technologically feasible for a product or product category.

The Commission was not able to determine that 100 ppm total lead content is not technologically feasible, as staff found that materials containing less than 100 ppm total lead content are commercially available in the
marketplace for manufacturers. CPSC staff also found many products currently on the market, that have been tested by CPSC or other organizations, that are already in compliance with the new 100 ppm total lead content limit.

Starting on August 14, 2011, manufacturers, importers, retailers and distributors of children's products must comply with the new 100 ppm federal limit for total lead content. CPSC will not enforce the CPSIA's independent third party testing requirement for total lead content until December 31, 2011, due to a stay of enforcement that is already in place.

The stay of enforcement does not apply to children's metal jewelry, which currently must undergo independent third party testing.

The new 100 ppm lead content limit does not apply to inaccessible (internal) parts of children's products and certain component parts of children's electronic devices, like electronic connectors and plugs, including headphone plugs.

Lead content levels for children's products are different from the levels Congress set for lead in paint or surface coatings. The limit for lead in paint or surface coatings is .009 percent. The .009 percent level has been in place since August 14, 2009 and independent third party testing is required for all paints or surfaces coatings used on children's products.

**Cadmium**

Cadmium is a soft silver white metal found naturally in the earth’s crust. The common forms of cadmium found in the environment exist in combinations with other elements such as chloride, chlorine and sulfide. Cadmium used in this country is obtained as a by-product to make pigments, and found in metal plating, batteries, plastics, ceramic coatings and jewelry.

Exposure to cadmium can cause harmful health effects. Eating food or drinking water with high levels of cadmium can severely irritate or bother the stomach and cause vomiting and diarrhea.

Breathing high doses of cadmium can irritate and damage the lungs and cause death. Greatest concern is from exposure to lower doses of cadmium over a long period of time. It can cause kidney damage and kidney stones, affect the skeleton and cause lung damage.

The U.S. Department of Health and Human Services determined cadmium is a probable carcinogen. There is no mandatory standard for cadmium in children’s products at this time.
V. Artificial Turf

Empire State Consumer Project (ESCP) warns of new questions surrounding the safety of artificial turf. University of Washington assistant soccer coach, Amy Griffin reported to Seattle news KOMO that 13 Washington soccer players on her recruiting list had been diagnosed with rare cancers and 11 of those are goal keepers. Former professional goalie Ethan Zohn had a list too; combined they totaled 27 players with cancer, 22 of whom are goalies. This month, Amy Griffin’s list rose to 90 players with cancer.

The theory is that goal keepers spend more time playing closer to the ground, diving into the turf on their hands, knees, and faces and that they may be exposed more than other players to the toxic chemicals in the recycled tire crumb rubber from which the turf is made. In 2007, ESCP (formerly RAMP) conducted a screening analysis of artificial turf samples and found a large number of toxics, including the carcinogen arsenic.

The concentrations of some chemicals found in the analysis were compared to the New York State and New Jersey upper-limits of allowable concentrations in the soil at hazardous waste sites that have been remediated. In some cases, these concentrations reported above exceeded hazardous waste site limits. In addition, approaches to evaluating hazardous waste sites typically require that the mixture of chemicals present be considered, rather than each chemical being individually evaluated. When multiple chemicals have the potential to target the same systems in the body (e.g., the nervous system) or are capable of causing mutations, cancer, or birth defects, it is particularly important that protective strategies be developed that consider the total burden of chemicals at a location or in a product. Many of the chemicals identified in fill share numerous target organs, and some are capable of causing cancer and birth defects. That adds complexity to the evaluation of fill, but is relevant when considering the safety or hazards associated with synthetic turf installations or any other consumer product.

We have known for years that artificial turf contains cancer causing chemicals, but this news again brings to light the need for more research. In addition to containing carcinogens, turf fields pose a number of other health risks ESCP has been reporting on since the fields were first introduced in schools. Some studies show a higher incidence of knee injuries and sprains on turf vs. grass. Injuries including ‘turf burn’ and ‘turf toe’ are highlighted by 40 Women’s World Cup soccer players, including local Rochester NY player, Abby Wambach, who are protesting the use of artificial turf for the 2015 World Cup. With skin abrasions, additional research is needed to determine whether methicillin-resistant Staphylococcus aureus infections, MRSA are more likely with artificial turf than with grass. Heat on and above artificial turf fields has been measured at up to 200 degrees Fahrenheit, causing heat stroke and dehydration in school children as well as professional athletes.

Schools and towns are eager to have the fields installed because there is a perception that communities are providing a better experience for their children if they can afford turf for their schools and parks – perhaps based on an old notion that these fields are somehow improved over the grass fields many parents grew up with.

Although grass is best, until schools and towns can be convinced of its superiority, there are now turf infill products made of coconut fiber and cork, which are more natural options.
Resources:


www.si.com/planet-futbol/2014/08/05/womens-world-cup-artificial-turf-legal-counsel


CDC’s Toxicological Profiles for many chemicals: http://www.atsdr.cdc.gov/toxpro2.html


California’s list of chemicals known to cause cancer or reproductive damage: http://www.oehha.ca.gov/prop65/prop65_list/Newlist.html

California’s toxicity criteria database: http://www.oehha.ca.gov/risk/ChemicalDB/index.asp

Scorecard Chemical Profile
Search: http://www.scorecard.org/chemical-profiles/

VI. Adult-only Laxatives

Due to serious safety concerns raised in an FDA Citizen Petition filed by consumer group, Empire State Consumer Project (ESCP), this September, the US Food and Drug Administration (FDA) agreed to study the effects of polyethylene glycol 3350 (PEG 3350) laxative use in children. The group submitted the petition in 2012 on behalf of parents who say their children have been harmed by polyethylene glycol 3350 drug products. There is special concern about the safety of PEG 3350 laxatives like Miralax, which are not approved for use in children, and are not approved for more than seven days use. Many children are prescribed multiple daily adult doses by doctors off-label, often for months or years at a time. The ESCP petition calls for an investigation into the effects of PEG 3350 on children and a boxed warning on PEG 3350 products. The boxed warning was not granted, but the FDA has decided to update the labeling of prescription PEG 3350 bowel preparations with more stringent warnings and precautions for patients with certain health conditions.

The safety concerns reported in the FDA Citizen Petition are symptoms similar to those of ethylene glycol toxicity. The petition grant includes an agreement by FDA to study the potential for PEG 3350 to degrade into ethylene glycol (EG) and diethylene glycol (DEG), and to study the long term effects of PEG 3350 products on pediatric patients. Ethylene glycol and diethylene glycol are chemicals used to make antifreeze. Both are toxic to the central nervous system, liver, and kidneys when ingested. In recent history, DEG contaminated cough and acetaminophen syrups killed hundreds of adults and children. In 2007, the FDA issued a warning for consumers not to buy toothpaste from China, as some brands were made with DEG.

The FDA Adverse Event Reporting System (FAERS) shows over 7,000 adult and child adverse event reports that include at least one PEG 3350 product, including a number of deaths. The number of reports rose from 2,257 in 2012, when the FDA Citizen petition was filed. In 2009, the FDA Drug Safety Oversight Board acknowledged neuropsychiatric, metabolic, gastrointestinal, and kidney events in children who took PEG 3350 laxatives, but felt that “no action was required” at that time:

“The Drug Safety Oversight Board discussed reports of metabolic acidosis, metabolic acidosis with increased anion gap, and neuropsychiatric adverse events in children using polyethylene glycol (PEG) products. Metabolic acidosis is a disturbance in the body's acid-base balance and causes too much acid in the blood. In some situations, metabolic acidosis can be a mild, chronic condition; however, it may lead to shock or death in severe cases. Neuropsychiatric adverse events may include seizures, tremors, tics, headache, anxiety, lethargy, sedation, aggression, rages, obsessive-compulsive behaviors including repetitive chewing and sucking, paranoia and mood swings.” “It is unknown if prolonged duration in solution would change the chemical properties of PEG-3350, and what the actual content of ethylene glycol or diethylene glycol or other low molecular weight PEG would be under such conditions.”

In addition to the ethylene glycol and diethylene glycol children may be exposed to through the degradation of PEG 3350, the FDA has tested 8 lots of polyethylene glycol 3350 and found ethylene glycol and diethylene glycol contaminants in the product itself:

“To better understand the level of polyethylene glycol impurities in PEG, the FDA Chemistry and Manufacturing group evaluated PEG 3350. This analysis of eight lots of PEG 3350 confirmed the presence of small amounts of ethylene glycol and diethylene glycol in all lots tested. Based upon the recommended daily adult dose of 17 mg daily dose PEG 3350, the maximum daily exposure of ethylene glycol would be 0.005 mg/kg/day for a 60 kg patient, or 0.015 mg/kg/day for a 20 kg pediatric patient (approx 5 years of age). Other
low molecular weight PEGs were not included in this analysis. However, it is not known if any of these LMW species are absorbed and if so to what extent. Understanding the human absorption profile of LMW species is the first step needed in trying to understand the possible contribution of PEG 3350 use to the development of adverse events in children using this product chronically."

Empire State Consumer Project has since petitioned the FDA to issue a Drug Safety Communication regarding the finding of ethylene glycol and diethylene glycol in all lots of PEG 3350 it tested, so that parents of study participants and all parents can be made aware of the potential for PEG 3350 to contain ethylene glycol and diethylene glycol. This petition for a Drug Safety Communication was denied. The EPA recommends that children not be exposed to more than 20 mg/L or 20 parts per million (ppm) of ethylene glycol in drinking water per one day or 6 mg/L or 6 ppm per day over 10 days. The adult doses of PEG 3350 tested were found to contain 0.3 mg of ethylene glycol of daily exposure for a 44 lb. child. This exposure is in addition to any EG and DEG exposure that may be found to occur from PEG 3350 degradation of the laxative products. The health effects of long term exposure of children to PEG 3350 are not known, although risks from short term exposure to EG and DEG in humans are well documented.

Resources:

Empire State Consumer Project FDA Citizen Petition and FDA Response
http://www.regulations.gov/#!searchResults;rpp=25;po=0;s=FDA-2012-P-0566;fp=true;ns=true

NIH Grant to Study PEG 3350 and Test of 8 Lots

Empire State Consumer Project and Reply to FDA Petition Response
http://www.empirestateconsumerproject.blogspot.com
VII. Secondhand Products

Although buying secondhand is a great way to help the environment, many people are not aware that products purchased at resale shops and garage sales must meet the government’s current safety standards. Children’s clothing, toys, and baby products must meet regulations that guard against suffocation, strangulation, choking, and other hazards.

This hat was purchased at a clothing consignment shop. Since it was made, the Consumer Product Safety Commission has required that hats, hoods, and upper body wear no longer include tie strings. These have been replaced by Velcro or snap tabs that can open more easily if caught on something.

Although it is not required that resale products be tested, second hand shops and garage sales must not sell the following items. If a product is hazardous, or does not comply with standards, the product should be destroyed and not be sold or given away to others.

- Children’s metal jewelry that does not comply with the federal limit on lead of 100 parts per million.
- Products that have been recalled by the CPSC (unless the products have been repaired in accordance with the recall).
- Toys and other articles intended for use by children and any furniture with paint or other surface coatings containing lead content known to be* over the specified amount.
- Products intended primarily for children age 12 or younger with lead content known to be over the specified amount.
- Most cribs manufactured before June 2011 may not be resold.
- Durable infant and toddler products, such as play yards, infant walkers, bath seats, bed rails for toddlers, and others that are missing parts, appear wobbly or unstable, or contain known hazards described in the handbook linked below.
- Other products that violate the CPSC’s safety standards, bans, rules, or regulations, or that otherwise present a substantial product hazard.

*Again secondhand products do not require that the seller test them, so beware of children’s metal jewelry and children’s painted products especially.

Resources:

VIII. Magnets

This year, the Consumer Product Safety Commission recalled Buckyballs and Buckycubes and banned high powered magnet sets from being sold in the US. The CPSC estimates that 1,700 ingestions by young children and teenagers were treated in emergency rooms between January 1, 2009 and December 31, 2011.

Magnets and tiny super magnets made of the rare-earth mineral neodymium (15 times more powerful than regular magnets) are popular toys/toy parts that can cause intestinal blockage and even intestinal perforation. If a child swallows more than one powerful magnet or one such magnet and a metallic object, the objects can attract to each other inside the intestines and cause perforations and/or blockage, which can be fatal if not treated immediately. Some cases have required the removal of portions of the bowel. Magnets used by tweens and teens to mimic piercings of the tongue, lip, or cheek have resulted in incidents where the product is unintentionally inhaled and swallowed.

In 2006 and 2007, Magnetix Magnetic Building sets sold before March 31, 2006 were recalled when over 1,500 incidents of magnets separating from the building pieces were reported. One death and 27 intestinal injuries occurred. Originally, the hazard was thought to be a problem for children under 6 primarily, but at least ten injuries involved children between the ages of 6 and 11 years old.

Because magnetic resonance imaging (MRI) technology should not be used to detect magnets in the body, parents are urged to consider whether the child was exposed to magnets before imaging of the abdomen is done to diagnose intestinal symptoms, so that non-magnetic imaging can be used.

Resources:
http://www.cpsc.gov/cpscpub/prerel/prhtml07/07164.html

IX. E-cigarettes
Through October 2014, American Association of Poison Control Centers has received 3,353 e-cigarette device and liquid nicotine reported exposures through calls to the poison control centers…

“Slightly more than half of these reported exposures have occurred in young children under the age of six. However, this is consistent with National Poison Data System exposures to all substances combined. Some children and toddlers who come in contact with e-cigarette devices or liquid nicotine have become very ill; some even requiring ER visits with nausea and vomiting being the most significant symptoms. Adults should use care to protect their skin when handling the products, and they should be out of sight and out of the reach of children. Additionally, those using these products should dispose of them properly to prevent exposure to pets and children from the residue or liquid left in the container.”

X. Laundry Pods
Last year, the CPSC issued a warning to consumers of laundry detergent pods. Children who have ingested detergent from these products (which may look like candy) have required medical attention and hospitalization for loss of consciousness, excessive vomiting, drowsiness, throat swelling, and difficulty breathing. Eye contact has resulted in severe irritation and temporary vision loss.

This month, a study published in the journal Pediatrics found that 17,230 children younger than 6 years old swallowed, inhaled or suffered skin or eye injury from the products in 2012-2013. The study, conducted by researchers at Nationwide Children's Hospital in Columbus, Ohio, found 769 children in the U.S. were hospitalized and one child died after ingesting a laundry detergent pod. Thirty of the children went into comas and 12 suffered seizures.

Resources:

http://pediatrics.aappublications.org/content/early/2014/11/05/peds.2014-0057.abstract

XI. Teething Gels

This year, the FDA reviewed 22 case reports of serious adverse events, including deaths, in infants and young children 5 months to 3.5 years of age who were given oral viscous lidocaine 2 percent solution for tooth pain or who accidentally ingested the product.

In June the FDA issued a warning against using lidocaine containing products to treat teething pain. Lidocaine and benzocaine gels can cause serious harm, including death. Swallowing the products can cause seizures, serious brain injuries and heart problems.

Resources:

http://www.fda.gov/Drugs/DrugSafety/ucm402240.htm
