

SCHOOL HAZARD FACTS FOR FAMILIES

UNITE FOR A TOXIC-FREE SCHOOL

If families and school staff work together toxic-free schools are more likely and all will benefit. See the *Unite for Healthy Schools* factsheet for how to do this.

Schools contain many toxic substances. Listed below are some of the toxic substances found in almost every school.

DIESEL EXHAUST

Diesel exhaust is a mixture of smog-forming pollutants, soot particles and other toxic constituents and is brought into the school through the ventilation system, open windows and doors. These small particulates can penetrate deep into the lungs making asthma episodes more severe, causing bronchitis, lung cancer and many other respiratory illnesses. There is no known safe level of exposure to diesel exhaust for children. Reducing exposure to diesel particulates through retrofits to vehicles and the use of ultralow sulfur fuel will help prevent illnesses.

Families should encourage their school district to ban school bus idling and sign the NJ Department of Environmental Protection (NJDEP) "No Idling Pledge." This pledge includes turning off engines while loading and unloading students, using newest school buses for longest routes, maintaining buses to eliminate visible exhaust, completing school bus driver training on eliminating idling, and ordering and posting NJDEP "No Idling" signs around the school. Families can make sure that parents know not to idle cars, and to look for and ensure that the no idling signs are posted around the school.



ARTIFICIAL TURF

Many school districts are opting for artificial turf/grass for their playing fields instead of natural grass. A modern artificial field has a several-inch thick layer of "infill" that keeps the blades upright. The infill may include ground-up recycled tires (crumb rubber), ground-up soles of athletic shoes, silica sand, and/or new thermoplastic or rubber material, all of which pose safety and health hazards. Crumb rubber, for example, contains toxic metals including zinc, lead, arsenic, mercury, cadmium and chromium and latex and carcinogens such as benzene and related compounds. Artificial surfaces heat to 95 to 140 degrees fahrenheit, contributing to burns, dehydration and heat exhaustion. Droppings from dogs, geese and other animals do not decompose on artificial turf.

Families should be alert for any plans by the school district to convert grass playing fields to artificial turf and work with staff to see that fields and playgrounds remain grass, or are reconverted to grass as soon as possible.

POLYCHLORINATED BIPHENYLS (PCBS)

Polychlorinated biphenyls (PCBs), are man-made chemicals and were widely used in construction materials and electrical products prior to 1978. They still remain in fluorescent light fixtures and in caulk. PCBs can affect the immune, reproductive, nervous and endocrine systems and are potentially cancer-causing if they build up in the body over long periods of time. If caulk containing PCBs is deteriorating or disturbed, it may present a toxic hazard to staff and students. Not all caulk contains PCBs and it is not possible to distinguish between non-PCB caulk and PCB caulk without a laboratory test. If old windows are replaced, the caulk will be disturbed and PCBs may be released into the air. Families should be aware of any renovation projects that involve window replacement and demand the caulk be tested before any windows are removed. If the caulking contains PCBs, the work must be done using special methods so PCBs are not released into the air.

PCBs are also present in old fluorescent light fixture ballasts. As these light fixtures deteriorate they release PCBs and should be replaced with new fixtures that do not contain PCBs.

ASBESTOS

Asbestos can be found throughout many schools in products such as roofing shingles, floor and ceiling tiles, cement pipe and insulation for

boilers. Asbestos fibers are considered relatively safe when they are firmly bonded or compacted within other material, such as floor tile. However, when asbestos-containing materials are loose or crumbling because of aging, water damage, abrasion or by pulverizing during construction, microscopic fibers are released into the air. Asbestos can cause cancer when inhaled.

Please see the Healthy Schools Now Fact Sheet on Renovation and Construction for more information.

LEAD

The primary source of lead in schools is deteriorating paint. Paint can become a threat when it is damaged due to aging, abrasion, poor maintenance, water damage, renovation and construction. Renovation can release lead particles, especially if it involves breaking through and disturbing a lead painted wall or ceiling, or if layers of paint are physically removed by sanding before repainting. Mental and physical problems, nervous system and kidney damage, and anemia are among the many adverse health effects from exposure to lead.

Please see the Healthy Schools Now Fact Sheet on Renovation and Construction for more information.

Families should call the Healthy Schools Now Coalition phone number listed below for direct help with concerns about toxic substances in their school and any other health and safety organizing issues.

This factsheet is one of a series prepared for the Healthy Schools Now Coalition by the New Jersey Work Environment Council, 7 Dunmore Ave., First Floor East, Ewing, NJ 08618 (609) 882-6100. Website at: <http://www.njwec.org/healthyschoolsnow.cfm>. Funded in part by the Princeton Area Community Foundation and the Schumann Fund for New Jersey.

Healthy Schools Now is a coalition of parents, educators, students and public school advocates dedicated to ensuring that all New Jersey children and school employees learn and work in safe, modern school buildings.

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