

# Why Is It Important to Use Environmentally Preferable Products?

- A single janitorial worker uses, on average, between 194–234 lbs. of chemicals annually, approximately 25% of which are hazardous substances
- Janitorial workers experience one of the highest rates of occupational asthma
- 6 out of 100 janitors are injured each year
  - 20% are serious burns to the eyes or skin
  - 12% are a result of chemical fumes



# Children and Toxins

- Children are at greater risk than adults when exposed to toxins because
  - They are exposed at higher levels
    - Eat more food, breathe more air, drink more water
    - Play closer to the ground, hand-to-mouth activity
  - They metabolize and eliminate toxins more slowly than adults
  - Their rapidly developing systems are more sensitive

# Children and Toxins

- Childhood exposures to industrial chemicals in the environment can\*
  - Cause cancer
  - Damage the developing brain
  - Lead to
    - autism
    - attention deficit disorder (ADD)
    - learning disabilities
    - mental retardation

\* In Harm's Way: Toxic Threats to Child Development, Greater Boston Physicians for Social Responsibility, 2000

# Toxins in Schools

- 20% of the US population occupy elementary and secondary schools
- In 1999, the Department of Education rated the IAQ in 1 of almost every 5 public schools as unsatisfactory\*
- Learning, developmental and behavioral disabilities in children affect an estimated 10% of children



\*EPA, "Indoor Air Quality Tools for School Program:

Benefits of Improving Air Quality in the School Environment," Feb. 2003

# Asthma In New England

- New England has one of the highest rates of asthma as a region\*
- Residents who have been diagnosed in their lifetimes\*
  - 14% of children
  - 15% of adults
- Current rates in the NE states\*
  - CT – 8.7% of children, 9.7% adults
  - NH – 8% of children, 10.3% of adults
  - ME – 10.7% of children, 9.6% of adults
  - VT – 8.1% of children, 8.5% of adults

\* NE Asthma Action Plan – Asthma Regional Council

# Children and Asthma

- 1 out of every 13 school-age children has asthma
- Childhood deaths due to asthma have tripled in the past 15 years
- 1 in 20 children has been hospitalized overnight for asthma
- Asthma is the primary cause of missed school days, over 1 million per year
- Asthma costs society \$16 billion per year in medical and indirect costs

# Disinfectants & Sanitizers

Higher

Risk Continuum

## Chlorine / Sodium Hypochlorite

- Very effective antimicrobial
- Corrosive to eyes and skin
- Damages floor finishes, carpets, clothing, etc.
- Respiratory irritant
- Environmental concerns from production, contaminants, byproducts
- Mixing can create poisonous gas

## Phenols

- Effective against TB – HBV assumed
- Corrosive to eyes and skin
- Damage floor finishes and other surfaces
- Strong pungent odor – respiratory irritant
- Environmental concerns. Possible estrogen mimic.

## Quats

- Typically not proven effective against spores
- Less toxic than Phenols – eye, skin and surface corrosivity
- Toxic to aquatic life

## Peroxide

- EPA Sanitizer
- Superior health & environmental profile compared to phenols and quats

Lower

Source: CDCNY-Apic-Albany-2006– Lynn Schulster