Score Report
CAMPUS / DISTRICT GREEN CERTIFICATION

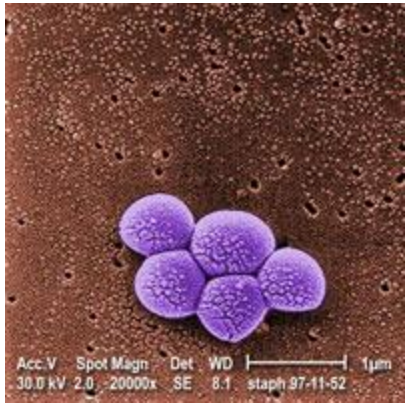
SCORE REPORT
Principles of Disinfecting –

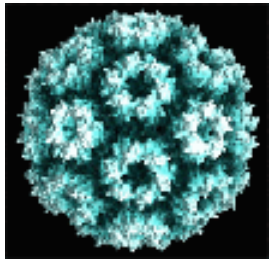
The Cleaning Professional's Guide to Cleaning for Human Health

AmSan®

What are Bloodborne Pathogens?

- **Bloodborne pathogens (germs)** are **bacteria**, **viruses** and **fungi** micro-organisms that are carried in blood and can cause disease in people.





Common Types of Bloodborne Pathogens (Germs)

- Bacteria
  - Staphylococcus, Salmonella, E-Coli
- Viruses
  - H1N1 Influenza A, HIV, Hepatitis, Herpes
- Fungi
  - Stachyboctryus

H1N1 Influenza A (Swine Flu)

- H1N1 is a new virus first detected in people in 2009.
- H1N1 is spreading from person-to-person much the same way that regular influenza viruses spread.
- H1N1 can be spread indirectly and people may become infected by touching something with the flu virus on it and then touching their mouths or noses.
- The Center for Disease Control (CDC) and the World Health Organization (WHO) have issued a world wide pandemic warning.

H1N1 Influenza A (Swine Flu)

CDC expects that more cases, more hospitalizations, and more deaths from this outbreak will occur over the coming days and months.

- Influenza is always serious – each year in the United States, seasonal influenza results, on average, in an estimated 36,000 deaths and more than 200,000 hospitalizations from flu-related causes.

- This outbreak certainly poses the potential to be at least as serious as seasonal flu, if not more so, especially given the fact that there currently is no vaccine against this virus.

- Because this is a new virus, most people will not have immunity to it, and illness may be more severe and widespread as a result. A vaccine should be available in the fall of this year.

Hepatitis B (HBV)

- 1 to 1.25 million Americans are chronically infected
- Symptoms include: jaundice, fatigue, abdominal pain, loss of appetite, intermittent nausea, vomiting (symptoms can occur 1-9 months after exposure)
- May lead to chronic liver disease, liver cancer and death
- HBV can survive for at least one week in dried blood
- Vaccination available since 1982

Staphylococcus (STAPH)

- Staph are bacteria commonly carried on the skin or in the nose of approximately 25%-30% of the human population and are the most common cause of skin infections in the U.S.
- Most staph skin infections are minor (i.e. pimples) and can be easily treated with antibiotics.
- Staph bacteria can also cause more serious infections, such as blood stream infections and pneumonia, which require more aggressive treatment.
- Some staph bacteria are resistant to antibiotics. MRSA is a type of staph that is resistant to a certain class of antibiotics

Methicillin-Resistant Staphylococcus Aureus (MRSA)

- Most people with MRSA on their skin or in their nose are unaware they are colonized, and never develop a MRSA infection.
- MRSA is transmitted most frequently by skin-to-skin wounds.
- Staph & MRSA infections in schools can be prevented in staff and students follow basic hygiene measures.

How Microbes (Germs) Spread

- The most common modes germs can spread or transmit by are:
  - Air
  - Dust
  - Bodily fluids
  - Food & Water food
  - Non-living objects

Potentially Infectious Bodily Fluids

- Blood
- Saliva
- Vomit
- Urine
- Semen or vaginal secretions

Control of Germs

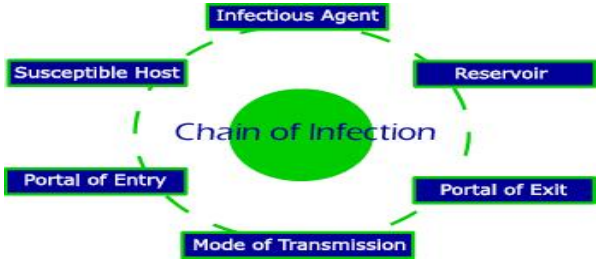
- Cleaning
  - Removal of unwanted soil or contaminants
- Sanitizing
  - Removal of majority of targeted microbes from an object
- Disinfecting
  - Total eliminating of most pathogenic organisms from an object

Direct vs. Indirect Transmission

- Direct
  - Person to person
    - Contact with another person's blood or bodily fluid that may contain blood
    - Mucous membranes: eyes, mouth, nose
    - Non-intact skin
- Indirect
  - Object to person
    - Contact with surface contaminated by infected person or host

Breaking the Chain of Infection

- Major Control Strategies
  - Proper hand washing
  - Universal Precautions
  - Appropriate and prudent use of cleaning & disinfecting agents
  - Managed cleaning procedures & on going training of cleaning professionals



Proper Hand Washing

- Wash your hands often with soap and warm water especially after coughing or sneezing for 15 to 20 seconds.

- Alcohol-based hand sanitizers or gel sanitizers are also effective when soap and water are not easily accessible.

Personal Protective Equipment (PPE)

- Anything that is used to protect a person from exposure:
  - Latex, vinyl or nitrite gloves
  - Air masks
  - Goggles
  - Aprons

Hand Washing After Cleanup of Targeted Germs

- Wash hands immediately after removing gloves.

- A hand sanitizer can be used but wash with soap and water as soon as possible.

Green Cleaning - Understanding the Role of Disinfectants & Sanitizers

- Disinfectants are classified under the Federal Insecticide, Fungicide and Rodenticide Act as “pesticides”. The EPA prohibits manufacturers from making claims that disinfectants & sanitizers are “green” or “environmentally sensitive”. Nonetheless, disinfectants & sanitizers play an important role in all green cleaning policies.

Limiting the Use of Disinfectants & Sanitizers

- Limit use of disinfectants to areas where people are likely to come into contact with contaminated surfaces (e.g. restroom fixtures, doorknobs, tables, other high-touch surfaces)

- Limit use of sanitizers only where there is a desire to reduce microbes to a safe level and where the use of stronger toxic disinfectant product in not indicated (e.g. food prep and services areas, gym equipment, custodial closets, etc) and circumstance prescribed by public health codes

Common Types of EPA Registered Microbe Killing Agents Linked to Application

- Quaternary Ammonium Compounds
  - "Quats" are the most commonly utilized class of disinfectants and carry a cationic (positive) charge that results in the total elimination of most pathogenic organisms when applied properly.
- Hydrogen Peroxide
  - For years a commonly utilized class of sanitizer; recent success in addressing this historically unstable chemical has provided an opportunity to produce disinfectant level products.
- Alcohols
  - Used exclusively as active ingredient in hand sanitizers

EPP Policy & Criteria for Selecting Disinfectants & Sanitizers

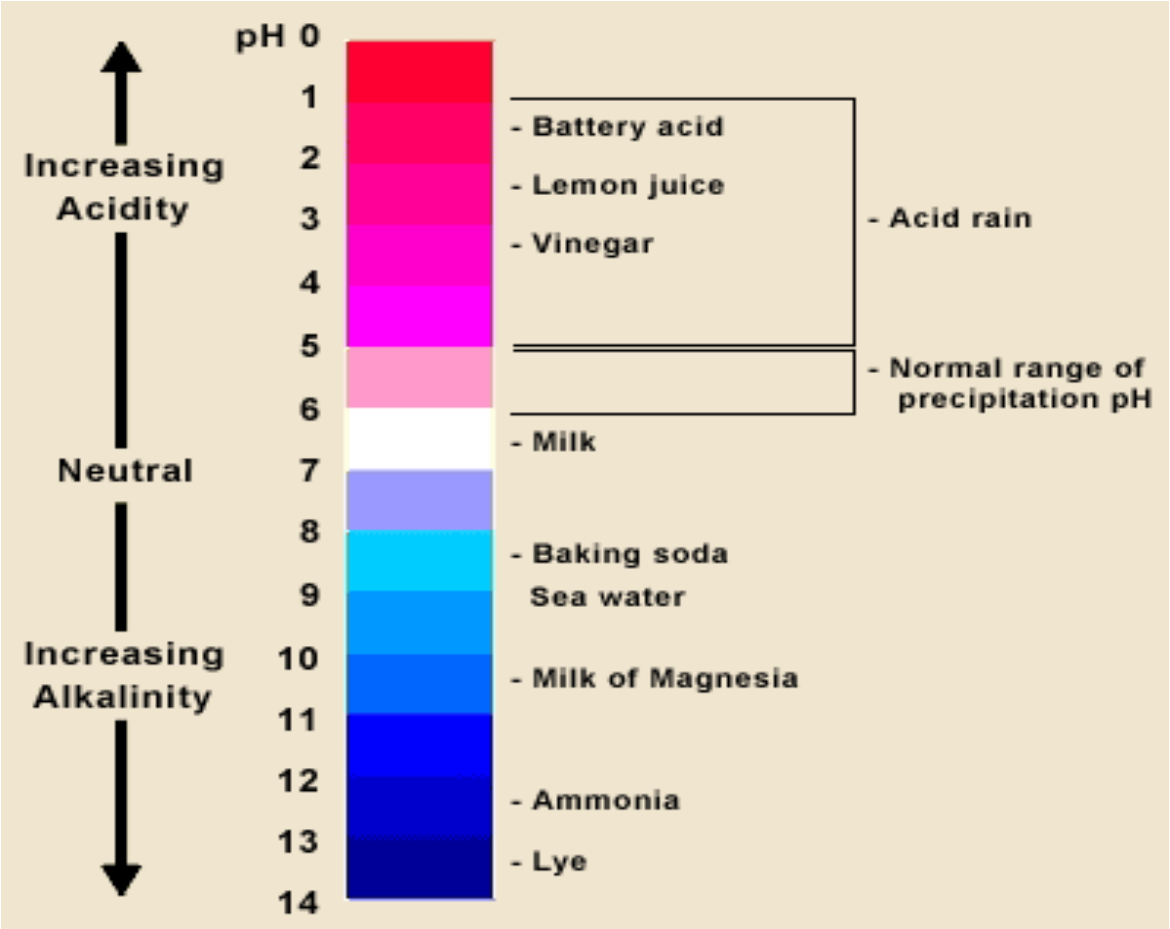
- EPA Registered kill claim linked to disinfecting or sanitizing application*
- Product pH between 2.5-12, with preference to products closest to neutral pH (7)
- Limited or no fragrance
- Low VOC's
- Not formulated using chlorine, butyl, or phenol compounds

**Note: Read and follow all instructions on label including dwell time*

Understanding the pH Scale

- The PH [(potential of) H(ydrogen] scale measures how acidic or base (alkaline) a solution is just as the Fahrenheit scale is used to measure temperature.
- The range of pH scale is from 0 to 14 from very acidic to very alkaline. A pH of 7 is neutral. A pH less than 7 is acidic and greater than 7 is alkaline.
- Each whole pH value below 7 is ten times more acidic than the next lower number. For example, a pH of 4 is ten times more acidic than a pH of 5 and a hundred times more acidic than a pH of 6.
- Each whole pH value above 7 is ten times more alkaline than the next higher number. An example would be, a pH of 10 is 10 times more alkaline than a pH of 9.

The pH Scale


pH 0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Increasing Acidity
Neutral
Increasing Alkalinity
- Battery acid
- Lemon juice
- Vinegar
- Acid rain
- Normal range of precipitation pH
- Milk
- Baking soda
Sea water
- Milk of Magnesia
- Ammonia
- Lye

Green Cleaning – Dilution Control of Disinfectants

- Use a chemical measuring and dilution control system (preferably closed system) that limits worker exposure to chemical concentrates while facilitating the proper dilution of chemical.

Equipment Management Strategies

- Manual restroom equipment is not used to clean any other areas of the building.
- Manual restroom equipment must be clearly marked for restroom use only (i.e. color coded and/or “restroom use only” identified) and includes: mops, brushes, brooms and other non-automated.
- Powered equipment used in restrooms must be properly cleaned/sanitized after restroom use and before it is used to clean other areas.

RESTROOM USE ONLY

Role of the Cleaning Professional

- Addressing the spread of germs in schools is essential to the health of our youth, our schools, and our nation.
  (Center For Disease Control 2007)

- Cleaning professionals are entrusted to control the spread of germs inside buildings. Your knowledge and understanding about interactions between man and germs and disinfectants can protect us all from the potential hazards of germs and disinfectants.
  (Jim Sheffer, Director of Sustainable Building Care 2009)