

U.S. National Poultry Research Center's Safety & Health Newsletter

We are working to keep you better informed and protected!

Volume 5, November 2015

On The Horizon...

NOV. 26

Thanksgiving
Federal Holiday

DEC. 10

RRC Safety Committee Meeting
2 PM, Room 207A

DEC. 25

Christmas
Federal Holiday

JAN. 1

New Year's Day
Federal Holiday

JAN. 18

Birthday of
Martin Luther King, Jr.
Federal Holiday



In this issue:

- Disinfectants – Is Yours Adequate?
- Employee Assistance Program – A Program You May Be Overlooking

Disinfectants – Is Yours Adequate?

Disinfectants are characterized into 3 activity levels according to the *Biosafety in Microbiological and Biomedical Laboratories* (BMBL) 5th Edition.

1. **High-Level Disinfection** – This procedure kills vegetative microorganisms and inactivates viruses, but not necessarily high numbers of bacterial spores. Such disinfectants are capable of sterilization when the contact time is relatively long (e.g., 6 to 10 hours). As high-level disinfectants, they are used for relatively short periods of time (e.g., 10 to 30 minutes.)
2. **Intermediate-Level Disinfection** – This procedure kills vegetative microorganisms, including *Mycobacterium tuberculosis*, all fungi, and inactivates most viruses. Chemical germicides used in this procedure often correspond to Environmental Protection Agency (EPA) approved “hospital disinfectants” that are also “tuberculocidal.” They are used commonly in laboratories for disinfection of laboratory benches and as part of detergent germicides used for housekeeping purposes.
3. **Low-Level Disinfection** – This procedure kills most vegetative bacteria except *M. tuberculosis*, some fungi, and inactivates some viruses. The EPA approves chemical germicides used in this procedure in the US as “general housekeeping purposes or spot decontamination of environmental surfaces in health care settings.”

Key Factors to Remember Concerning Disinfectants:

- Make sure you are using the correct disinfectant for the agent/application (see chart).
- Ensure that disinfectant solutions are being made at correct intervals. For example, the shelf-life of 10% bleach is 1 month, though UV may degrade the solution before the one month period. This may be a concern especially if your disinfectant is stored near a window. Chlorine, especially as bleach, is highly alkaline and can be corrosive to metal. Use on metal surfaces (Like those found in a Biosafety Cabinet) over time can result pitting, which can harbor bacteria and other harmful microorganisms, leading to possible product contamination. A wipe down with 70% ethanol or sterile water after using a bleach solution can reduce corrosion on metal surfaces. Bleach is not recommended as an antiseptic, but may be used as a general-purpose disinfectant and for soaking contaminated metal-free materials. Chlorine gas is highly toxic. Bleach must therefore be stored and used in well ventilated areas only. **Also, bleach must not be mixed with acids to prevent the rapid release of chlorine gas.**

WARNING!!!

Please, take the time to watch the below safety video if you plan on using a Turkey Fryer this Thanksgiving! Be aware and be safe!

<http://www.safteng.net/index.php/free-section/safety-info-posts/holiday-safety/4094-hazards-of-deep-frying-your-turkey-ul>

Visit Our Safety Website
www.ars.usda.gov/SAA/RRC/Safety



Key Factors to Remember Concerning Disinfectants (Cont.):

- Aqueous alcohol solutions are not ideal for surface decontamination because of the evaporative nature of the solution. These products are better when used as soaks for instruments. Alcohols are volatile and flammable and must not be used near open flames. Bottles with alcohol-containing solutions must be clearly labeled to avoid accidental autoclaving.
- Safety Data Sheets (SDSs) must be maintained for disinfectants used in the laboratory and they should be listed on your chemical inventories.
- All disinfectant bottles must be properly labeled with, at a minimum, the concentration and name of the chemical (70% ethanol vs 70% ETOH) and an appropriate hazard warning. The hazard warning may be in the form of words, pictures, symbols or a combination there of, which provide at least general information regarding the hazards of the chemical.

Property	Alcohols	Aldehydes	Chlorine and Chloride Compounds	Hydrogen Peroxide	Hydrogen Peroxide/Peracetic Acid	Phenolics	Quaternary Ammonium Compounds
Bactericidal	Good	Good	Good	Good	Good	Good	Good
Fungicidal	Good	Good	Good	Good	Good	Good	Good
Virucidal	Fair against non-enveloped viruses	Good	Good	Good	Good	Good	Fair
Tuberculocidal	Good	Good	Good	Good	Good	Good	Not unless mixed with alcohol
Sporicidal	No	Good	Good	Good	Good	No	No
Fast Acting	No	No	Yes	Yes	Yes	No	No
Harmful Residues	No	Yes	Yes	No	No	Yes	Yes
Safety Concerns	Flammable	Hazardous	Caustic and strong oxidizer	Generally safe in low concentrations	Generally safe in low concentrations	Some phenolic compounds are carcinogenic	Generally safe in low concentrations

Sources: BMBL 5th Ed. Centers for Disease Control and Prevention, 2009.

Disinfectant Chart: <http://www.cemag.us/articles/2014/12/developing-effective-disinfectant-program>

In The Spot light!

Are You Reporting Incidents & Close-Calls Like You Should?

Recently, during our plumbing replacement activities, a small quantity of Mercury was found in one of the pipes. The Mercury could be from a less than efficient lab procedure or a broken thermometer; we cannot be sure, but what we do know is that nothing was ever reported! This should be a concern to everyone who works at our facility because little issues often turn into big problems if they are not addressed.

At the USNPRC we are not in the business of punishing individuals when accidents or close-calls occur. Our goal is constant improvement! When you report an accident, incident or close-call the safety team conducts an investigation to determine what happened, why it may have happened and what is possibly needed to prevent a recurrence. Typical conclusions are often a change in procedure, substitution of materials, or retraining of personnel. The only time disciplinary action might be recommended is if an accident or incident was a result of outright negligence.

The safety team is not here to “get you” if something happens, we are here to help you avoid a recurrence by assisting you with the help you need to better protect your health and the health of all those work at or visit our facility. When you report incidents and close-calls you empower us to further enhance the safety of your work environment!

Employee Assistance Program

We all encounter personal problems from time to time that can affect our lives at home and at work. It is important to know what avenues are available for help. Federal Occupational Health (FOH) manages one of the largest Employee Assistance Program (EAP) in the country.

The EAP provided by FOH is a comprehensive program that helps employees resolve personal problems that may adversely impact their work performance, conduct, health, and well-being. FOH’s EAP addresses problems in the quickest, least restrictive, and most convenient manner while minimizing cost and protecting client confidentiality. Among the services they offer are:

- Assessment, counseling and referral services that include: Family/Relationship issues, workplace concerns, alcohol & drug problems, personal and emotional difficulties, health and behavioral issues.
- Financial services that include: Family budgeting, the basics of financial planning, savings and investment strategies, and retirement guidance.
- Legal services
- Advance Directives: Legal documents, such as the living will, durable power of attorney and health care proxy, which allow people to convey their decisions about end-of-life care ahead of time.
- “Continuous Quality Improvement” reviews
- Critical Incident Stress Management
- Presentations and Orientations
- Program promotion

For more information visit the link below to watch the Employee Orientation video.

<http://www.foh.hhs.gov/Public/EAPvideo/default.html>

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