



Dear Client/Friend,

Industrial Health & Safety's July 2009 Spotlight on Safety has been released . The purpose of this newsletter is to provide friends and clients a greater understanding of the dynamic world of occupational safety and health, and to keep them acquainted with the various changes in policies and laws that will affect their facilities.

July 2009 Edition

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OSHA-Combustible Dust Standard Considered

The Occupational Safety and Health Administration (OSHA) is considering rulemaking to develop a combustible dust standard for general industry. The U.S. Chemical Safety and Hazard Investigation Board (CSB) completed a study of combustible dust hazards in late 2006 which identified 281 combustible dust incidents between 1980 and 2005 that killed 119 workers and injured 718. OSHA already has a number of standards addressing the issue that include Emergency Action Plans, Ventilation, Spray Finishing, and Permit Required Confined Space. The Agency as of yet, however, does not have a comprehensive standard that addresses combustible dust hazards. The Agency has

published a Safety and Health Information Bulletin, Combustible Dust in Industry: Preventing and Mitigating the Effects of Fire and Explosions, and has implemented a Combustible Dust National Emphasis Program (NEP). OSHA will also use information gathered from the NEP as the agency considers future rulemaking.

SARA 313 Reports due July 1st

The Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), Title III, Section 313, also known as the Superfund Amendment and Reauthorization Act (SARA), requires annual reports be filed by owners and operators of facilities with ten or more full time employees equivalent to a total of 20,000 work hours per year and they must either manufacture or process, or otherwise use these chemicals in excess of their threshold limits. The owners/operators must report the quantity of SARA 313 chemicals used, released, and transferred at each facility. SARA 313 requires the EPA and State Regulatory Agencies to annually collect data on releases and transfers of certain toxic chemicals from industrial facilities, and make the data available to the public through a public database called the Toxics Release Inventory, or TRI.

Chinese Drywall

The Consumer Product Safety Commission (CPSC) has developed a "Drywall Information Center" to promulgate information related to Chinese Drywall. This center outlines CPSC's drywall investigation activities, provides answers to frequently asked questions, and offers guidance for identifying and dealing Chinese drywall that may be in your home.

The CPSC Drywall Information Center located at <http://www.cpsc.gov/info/drywall/>

Chrysotile Asbestos Fact Sheet

Special interest groups ranging from chrysotile asbestos producer nations to major industry sectors are lobbying to have the exposure risk to chrysotile asbestos devalued compared to other asbestos varieties. The Asbestos Disease Awareness Organization (ADAO) and the Environmental Information association (EIA) have released a "Chrysotile Asbestos Fact Sheet" to provide clear and concise information on the dangers of chrysotile. The Chrysotile Asbestos Fact Sheet is located at <http://www.eia-usa.org/wp-content/post-files/chrysotile-fact-sheet.pdf>

The Facts about UV and SPF

Many occupations move the workplace into the sun come the summer months and knowing how to protect one's self is of utmost importance. On the market today are countless brands of sunscreens and sun protectants that are claiming higher and higher SPF's. But what exactly is SPF and how will it best protect you from the sun's harmful rays?

Most of us are exposed to large amounts of UVA throughout our lifetime. UVA rays account for up to 95 percent of the UV radiation reaching the Earth's surface. Although they are less intense than UVB, UVA rays are 30 to 50 times more prevalent. They are present with relatively equal intensity during all daylight hours throughout the year, and can penetrate clouds and glass. They also can penetrate into the deepest layer of the skin, the dermis. By penetrating to the dermis, UVA is a major contributor to skin aging and has been found to effect keratinocytes of the epidermis contributing to skin cancer. UVB, the chief cause of skin reddening and sunburn, tends to damage the skin's more superficial epidermal layers. It plays a key role in the development of skin cancer and a contributory role in tanning and photo aging. Its intensity varies by season, location, and time of day.

A sunscreen's SPF or Sun Protection Factor measures how much a sunscreen shield's the skin from UVB (the sun's shorter wave radiation) which can cause sunburn. The SPF rating is calculated by comparing the amount of time needed to produce sunburn on protected skin to the amount of time needed to cause sunburn on unprotected skin.

SPF ranges today from 2 to now 100. The practical significance of high SPF is very small. SPF 100 blocks 99% of UVB rays, while SPF 50 blocks 98%. SPF 30 deflects 96.7%. If not applied correctly, SPF will not work to its full potential.

The recommended amount of sunscreen that is to be applied for optimal protection is an ounce (common equivalent to a shot glass) over the whole body. It has long been assumed that applying half the recommended amount of sunscreen provided half the SPF protection. However, in 2007 a small study was performed by the British Journal of Dermatology that found if only half the amount is applied than the protection is equal to the square root of the SPF (i.e. half ounce of SPF 70 will provide an SPF of 8.4 as opposed to 35.) It is recommended that a sunscreen of at least SPF 15 with UVA-fighting ingredients like Avobenzone or Mexoryl SX be applied.

Important UV Safety Tips

- Apply the recommended ounce of sunscreen to the skin 15 minutes prior to sun exposure
- Re-apply sunscreen every two hours especially if sweating excessively or in contact with water
- Make sure your sunscreen contains UVA blocking ingredient such as Avobenzone or Mexoryl SX
- Try wearing a wide brimmed hat and tight woven and loose fitting clothes to cover exposed skin that are breathable to block the sun. Also wear darker colors as opposed to light colors that reflect the rays.
- Stay away from tanning beds
- Try to seek shade outdoors between 10am-4pm
- Wear sunglasses with UV protection

UV Exposure in the Workplace

UV radiation sources can not only be found outside but can be found in the workplace as well. Sources can be found in the laboratory and in the shop. Biosafety cabinets, certain types of hand-held light sources, transilluminators, cross linkers, welding equipment, and some laboratory instruments such as spectrophotometer can be a source of UVA, UVB, and UVC radiation.

Safety guidelines for the outdoors can be applied to the workplace as well. Long pants and long sleeves that are breathable should be worn when out in the sun or when exposure to UV radiation is likely. Sunscreen should be applied with a protection factor of 15+. Eye wear that blocks UV rays should be worn and sun and UV exposure should be minimized if possible. Access to rooms with open source transilluminators should be controlled and posted with a warning sign indicating face and other skin protection is needed to enter when a transilluminator is in use. The protection required for such situations is standard laboratory apparel including a fully buttoned lab coat, gloves, long pants, and closed toe shoes. While working with UV radiation sources, lab workers must be careful to prevent gaps in clothing that will expose the skin such as around the neck and wrists. In addition to the standard lab attire, a polycarbonate face shield labeled for UV protection (as opposed to just glasses/ goggles) should be worn to protect the eyes and face. It is not uncommon for lab workers to receive facial burns in the areas not covered by the goggles or glasses. Those working in shops should also be provided with proper eye wear and face masks. Coats and proper shop outfits should be worn at all times. Another often overlooked thought is to read the labels of common medications that one might be taking to see if it increases an individual's photosensitivity and susceptibility to burns.

Heat Illness

Working in outdoor conditions in the summer can leave workers at risk for heat related illness. Proper hydration methods, clothing choices, and education on recognizing the signs and symptoms of heat stroke can be life saving.

Heat-related illnesses and their symptoms include:

- Heatstroke - a life-threatening illness in which body temperature may rise above 106° F in minutes; symptoms include dry skin, rapid, strong pulse and dizziness

- Heat exhaustion - an illness that can precede heatstroke; symptoms include heavy sweating, rapid breathing and a fast, weak pulse
- Heat cramps - muscle pains or spasms that happen during heavy exercise
- Heat rash - skin irritation from excessive sweating

Proper Hydration:

- One easy rule if you work outdoors is 1/2 (.5) liter of water every 1/2 hour.
- Try drinks containing electrolytes to help with the absorption of fluids and to help replace what was lost through sweating
- Don't drink too quickly! Drink the fluids at a slower pace to avoid stomach upset

Keep plenty of water handy along with foods high in water content

Proper Hand Washing

With the threat of swine flu pandemic, proper hand washing is a practical and effective safeguard both in and out of the work place.

When washing hands with soap and water:

- Wet your hands with clean running water and apply soap. Use warm water if it is available.
- Rub hands together to make lather and scrub all surfaces, including underneath the fingernails and up to the wrists.
- Continue rubbing hands for 20 seconds. Need a timer? Imagine singing "Happy Birthday" twice through to a friend!
- Rinse hands well under running water
- Dry your hands using a paper towel or air dryer. If possible, use your paper towel to turn off the faucet and open the door to leave the restroom.

Remember: If soap and water are not available, use alcohol-based gel to clean hands.

When using an alcohol-based hand sanitizer:

- Apply product to the palm of one hand
- Rub hands together
- Rub the product over all surfaces of hands and fingers until hands are dry.

Sources:

www.osha.gov

www.epa.gov

www.nytimes.com

www.forensicmag.com

www.medlineplus.gov

www.nlm.nih.gov

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