

In Touch EHS Newsletter May 2020

OCCUPATIONAL SKIN DISORDERS - THE INVISIBLE THREAT LURKING UNDER GLOVES

WE PROVIDE A NUMBER OF DIFFERENT SERVICES TO ASSIST OUR CLIENTS THAT INCLUDE:

- EHS Risk Assessments
- Occupational Hygiene Surveys
- Ergonomics Surveys
- EHS Management
- System development and implementation
- Environmental Monitoring
- Identification of EHS Legal Requirements and Compliance Audits
- Construction EHS Services
- Construction H&S Files
- Internal Auditor Training
- General EHS Training







Department of Employment and Labour Approved Inspection Authority (OH0049-CI-09)

Newsletter compiled by Lee Rands

SAFET<mark>ECH</mark>

Many professions require personal protective equipment (PPE), such as gloves, to be worn in order to prevent workers from coming into contact with hazardous chemicals, extreme temperatures and harmful germs. However, workers often remove protective gloves at the end of the day only to find their skin was not protected from one of the biggest workplace threats: **Occupational Skin Disorders (OSDs)**. From dry, red and irritated skin, to deep cuts which are vulnerable to infection, workers with unhealthy hands can harm a business in numerous ways i.e. decreased productivity and safety violations.



SAFETY

Gloves may protect employees from harmful substances, but if worn for too long the skin turns wrinkly, dry and soft. Wearing them for extended periods also causes moisture to build up, increasing the risk of fungal infections. Broken skin can lead to other skin infections like Streptococcus pyogenes and S. aureus, causing red, painful, swollen skin with ulceration, oozing or pustules.

Many industrial hand cleansers used to remove tar, oil, grease and wax contain petroleum distillates and other hydrocarbon solvents which are harmful to the skin and cause dryness, irritation or cracked skin. When the products meant to help cause harm, employees become discouraged to use them, furthering hand hygiene issues.

For best results, workers should always ensure that their gloves fit correctly. In addition, finding a skin care program that is effective, reliable, and convenient for both employees and the employer is essential for preventing OSDs and improving worker health.





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RECOGNISING AND MITIGATING STATIC ELECTRICITY HAZARDS

Static electricity is sometimes little more than a nuisance that causes clothing to unattractively cling to all the wrong places. But it can have more detrimental effects.

Objects are made of atoms containing protons, electrons and neutrons. Protons and electrons usually balance each other out in an object, making it electrically neutral. But when different objects are rubbed together, the resulting friction can cause an imbalance in the number of protons or electrons on the surface, which causes static electricity. It will either remain on the surface until it is safely discharged or until it can jump to another object, as a spark.



Although it is mostly associated with someone walking across a surface and touching another person or a metal object, static electricity can also be generated by materials in motion. An example of this would be when liquids move through pipelines or hoses or as they are filtered, stirred, poured or pumped. Similar to static cling in clothing, the result is sometimes nothing more than a nuisance. However, when flammable liquids are being moved, static electricity can cause fires and explosions if sufficient concentrations of flammable vapours are present.

In addition to friction, another factor which plays a role in static electricity hazards, is humidity. The lower the humidity, the higher the risk of harmful levels of electricity being built up on surfaces. The fluctuation between seasons, or between humid and arid conditions, can lead to a false sense of security, especially if static electricity is not a hazard for long periods of time. However, it is important to recognise potential sources of static electricity and guard against them at all times, not just when the humidity drops.

Identifying Hazards

Sometimes, safety hazards are easy to spot because they can be seen. However, because static electricity is invisible, sources may initially be harder to identify. Here are some examples:

1. Liquids

Refer to the company's chemical inventory (as long as it is up to date), taking special note of all liquids that are flammable, such as petroleum-based solvents and fuels. When these fluids are in motion, their hazard potential increases more than when they are being stored in undisturbed, closed containers. Identify areas where each flammable liquid is pumped, mixed, filtered, sprayed, poured or transferred, as well as areas where flammable vapours may be released from a process.

2. Combustible Dusts

Combustible dusts are another hazard to consider, and not only at grain handling facilities. Like flammable vapours, static electricity can produce a spark with enough energy to ignite combustible dusts in the air or on surfaces.

3. Static Generating Activities / Processes

Identify each static-generating activity and process e.g. conveyor belts, fan blades, pulleys, sanding and grinding operations or receiving and assembly activities. People, machinery and vehicles may also be additional sources.

4. Combining Sources or Processes

The combination of a liquid, gas or dust with an activity or process can create the potential for static electricity to be unsafely discharged. In addition to the obvious manufacturing, assembly and distribution areas, bulk chemical and waste storage areas are not to be neglected.

Like gravity, static electricity is unavoidable but must not be overlooked or disregarded. Recognising it as a hazard and proactively mitigating the risks will help to prevent dangerous fires and explosions.



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