

Ensuring Critical Skin Health in the Workplace

STOKO® TECH-ALERT

Protect overall health by observing proper hand hygiene and skin care

The average human body is covered by 3,000 square inches of skin, making it the largest of our organs. As it performs many functions that preserve our health and well being, proper care of this large and important organ is vital. That need increases when the body is exposed to chemicals, physical irritants, mechanical stress and natural environmental hazards.

According to the National Institute for Occupational Safety & Health (NIOSH), one of every four workers is exposed to some form of skin irritant on the job. Whether they work in maintenance, in food service or on the factory floor, there is a good chance that they are dealing with some type of skin hazard. If not addressed, those hazards can cause a range of problems, from simply drying out the skin to more advanced conditions that may prove to be painful and even costly, such as dermatitis.

To many workers, having cracked or dry skin is simply considered part of the job. But it doesn't have to be, and in many cases, it shouldn't be. Cracking in the skin can be a serious safety concern, particularly when it enables harmful substances to easily penetrate the skin's outer layer. Workers should know about the potential hazards of the substances they work with and how those substances can affect their skin. It is vital to educate workers about the importance of maintaining healthy skin and to show them how proper skin care can prevent visits to the doctor and lost work time. Education on the safe and effective removal of potentially harmful substances from the hands, both during and after the workday, is also critical.

When gloves are not an option . . .

The most effective way to prevent skin irritation is to implement a three-step program that begins before the skin comes into contact with the substances to be encountered in the workplace. When gloves are not an option, a before-work cream can be used to help maintain the integrity of the outer skin layer. Proper selection of the before-work cream is extremely important, as is selection of an after-work skin conditioner to return moisture and oil to the skin, aiding in repair of the skin barrier.

But the most essential challenge is to choose a hand cleaner most appropriate to the everyday conditions of a particular work environment – one that will prevent outright damage to the skin. This selection is critically important to skin health.

For starters, the skin cleanser selected should be appropriate for the hazard being removed. For example, light-to-medium dirt is best removed with a liquid cleanser. Paints and resins should be removed with a more targeted product containing low-toxicity solvent content. Heavy dirt and grease, most associated with mechanics, can be removed with a cleanser that is either low-solvent or 100% solvent-free.

What to Avoid

Common parts cleaners should not be chosen as skin cleaners. Avoid paint thinners, abrasive powders, and solvent- or d'limonene-based hand cleaners (the so called "orange" hand soaps). The NIOSH Criteria Document on Organic Solvents reports that certain chemicals such as xylene, which is found in common paint thinner, appear in the bloodstream within 15

minutes of contact with skin. Borax and pumice-based abrasive hand cleaners strip away the skin's natural barrier, the stratum corneum, thus increasing its susceptibility to rashes and dermatitis. Petroleum-based solvents may cause a defatting action on the skin. In addition, hand cleaners that contain **orange** d-limonene **solvent** may cause allergic reactions and dry skin conditions.

Industrial hygienists and safety professionals who seek to improve worker health and workplace safety by providing the information offered in this article; training materials; the appropriate dispensing systems; and hazard-specific programs encompassing before-work skin defense, skin cleansers and after-work conditioners will find that proper skin care delivers benefits we can all see and feel. Addressing this critical aspect of workplace safety can result in fewer injuries and less lost work time while contributing to a healthier, more productive workforce. By using skin-compatible products in the correct manner, workers who suffer from skin irritation problems can see immediate, positive results. And in lowering cases of dermatitis in one's facility, an effective skin care program goes a long way toward reducing risk and improving a company's performance.



About the Authors

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