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The pain of cleaning—how to protect workers against the chemical threat

Whilst industrial cleaning is an essential part of general day-to-day operations, the reality is that the vast majority of workplace chemicals used also present a significant worker hazard and are one of the biggest health and safety challenges today.

Thinners, greases, oil, degreasers, lubricants, cleaning fluids and solvents are typical examples of the types of chemicals in daily use.

According to hand protection experts Marigold Industrial Ltd, where workers will be working directly with chemicals or be likely to come into contact with them – particularly when carrying out cleaning tasks - it is essential that the right type of protection is identified for the substances that workers will be encountering.

For failure to do so could not only result in worker injury or skin disease, but in this ever-increasing culture of litigation, end up in an unwanted - yet all too easily prevented - compensation claim.

"Unless it is protected properly, skin that is exposed to chemicals can become irritated, burned or ulcerated. Whether they are strong chemicals, such as degreasers or subtler ones, such as mild cleaning fluids, all chemicals – including water - will break down the skin's natural defence – it's just a matter of time before it breaks through if not properly protected.

"Sometimes that damage occurs quickly where people are working with stronger chemicals. More often, and this is where most skin injuries take place, damage occurs over a longer period of time as people perceive that the substance they are working with poses little or no chemical threat, is not particularly 'hazardous' or not obviously dangerous," said John Thorne of Marigold Industrial Ltd.



"You wouldn't ever consider dipping your hand into a vat of chemicals, yet hundreds of thousands of people in factories and businesses of all shapes and sizes, work with commonly used substances such as cleaning fluids, oils and greases every day, all of which are chemicals that strip the skin of its natural protective oils," added John.

Protecting the hands of workers remains one of the biggest challenges for those with responsibility for managing health and safety have today – especially when it comes to chemical protection as the selection proves is not always a straightforward one.

"Sourcing detailed information on issues such as the provision of the right glove materials to protect hands against common workplace chemicals can be challenging, and unless the information is easy to source and understand, there is an increased likelihood that gloves that are inappropriate to the substances being handled will be provided in the hope that 'a glove must act as a barrier'," said John.

"Glove materials perform differently when they come into contact with substances – offering varying levels of protection. A glove that provides excellent protection against one type of chemical may provide very little protection against another as it has different chemical compounds that are able to break down the glove material much more easily – so just because a glove is classed as offering chemical protection – it will be protection against a certain types or types of chemical," he added.

According to Marigold® Industrial, the ideal scenario would be to remove any contact between worker and chemical, but the realities of the workplace and the tasks undertaken mean this is not always possible. So the challenge is to ensure that where skin exposure to chemicals is concerned, the right type and level of protection is provided.

The company says the first and most important step for those with responsibility for health and safety is to know the chemicals that staff are working with and how they are working with them.

Once the chemical or chemicals being worked with have been identified, Marigold Industrial says safety managers must consider the work being undertaken by staff and the type of contact they have with the chemical to determine which glove material will provide the right level of protection.

"If the individual concerned is working with a chemical that is occasionally splashing the glove then one type of glove material may provide the right level of protection. If the same chemical is being used by another worker, but they are having to fully dip their hand into the chemical or will have a much more exposed contact time with it, then a different material, that has higher level protection may be required," said John.

According to Marigold Industrial, when determining which glove material will provide the right levels of protection, end users should not be reluctant to seek help and advice from leading glove manufacturers who will have invested a great deal of time in creating educational and information tools such as Chemical Permeation Charts.

"Chemical protection has to be based on accurate and authoritative data. Without this, the glove selection process is potentially and seriously flawed, which is why information tools such as our Chemical Permeation Charts are essential.

"The new charts effectively spells out clearly and simply not only how long you can safely use gloves with a particular chemical but which gloves provide the highest levels of protection, both for a disposable and non-disposable glove ranges," said John.

"Statistics show that dermatitis is consistently one of the main causes of workplace injury yet it is one of the most easily preventable if only a little time is taken in understanding the chemicals being used and identifying the materials that provide the right protection.

To help this process, Marigold Industrial Ltd's chemical permeation chart adopts a number rating from 0 to 6 to highlight specific glove permeation performance against 100 of the most common workplace chemicals. A glove with a score of 6 provides permeation protection of over 8 hours whilst a glove with a score of 0 provides protection of less than 10 minutes and therefore, maybe inappropriate for use with a particular chemical. Users can also cross-reference official chemical names with their common alternative names.

"By listing over 100 of the top industrial chemicals and the performance of our chemical protective glove ranges against them, highlighting which ones offer the highest and lowest levels of protection against each chemical, health and safety managers can base their glove selection process of accurate data and not guesswork," said John.

Conclusion

For anyone involved in industrial cleaning, the chemicals used present a real danger. Only by investing time, and using all the information available can the right hand protection solution be provided.

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