#### **ZDHC Adding PFAS Chemicals to Naughty List**



ZDHC announced new harmful chemical substances will be added to its Manufacturing Restricted Substances List (MRSL) in Version 3.0, including all PFAS (per- and polyfluoroalkyl substances) treatments used for textiles, leather and footwear, as the industry is moving toward cleaner production.

According to the U.S. Environmental Protection Agency (EPA) PFAS are widely used, long-lasting chemicals, components of which break down very slowly over time. Because of their widespread use and their persistence in the environment, many PFAS are found in the blood of people and animals all over the world and are present at low levels in a variety of food products and in the environment.

The EPA said scientific studies have shown that exposure to some PFAS in the environment may be linked to harmful health effects in humans and animals. There are thousands of PFAS chemicals and they are found in many different consumer, commercial and industrial products.

"This makes it challenging to study and assess the potential human health and environmental risks," EPA said on its website. "Scientists at EPA, in other federal agencies, and in academia and industry are continuing to conduct and review the growing body of research about PFAS. However, health effects associated with exposure to PFAS are difficult to specify for many reasons."

The agency said current peer-reviewed scientific studies have shown that exposure to certain levels of PFAS may lead to reproductive effects, such as decreased fertility or increased high blood pressure in pregnant women; developmental effects or delays in children, including low birth weight, accelerated puberty, bone variations or behavioral changes; increased risk of some cancers, including kidney and testicular cancers; prostate, reduced ability of the body's immune system to fight infections, including reduced vaccine response: interference with the body's natural hormones and increased cholesterol levels and/or risk of obesity.

The updated ZDHC MRSL V3.0 will be published Nov. 1, with a transition period of 12 months for effective implementation by all stakeholders. The updated ZDHC MRSL V3.0 will now align with Bluesign's planned removal of

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all existing Bluesign Approved PFAS containing formulations from the Bluesign Finder to restrict PFAS under REACH for all non-essential uses, including in consumer products.

"ZDHC MRSL has clearly evolved as the gold standard for cleaner input chemicals in the global textile supply chain. ZDHC MRSL Version 3.0 remains contemporary with the inclusion of newer chemicals of concern and reducing the permissible limits for impurities," Ullhas M. Nimkar, president of the Society of Dyers and Colourists and a member of the ZDHC MRSL Council. "This has been possible as the chemicals, commonly known as 'forever chemicals' have been moved from the candidate list into the main list. This is a significant change which will be better for the environment."

The independent MRSL Advisory Council (MAC) composed of industry, NGO, and academic experts used a science-based process for updating the ZDHC MRSL. This ensures an objective evaluation of chemical substances. The MAC made the final decisions regarding the substances added to the list and their limit values.

"The new ZDHC MRSL Version 3.0 sets a clear and unified signal from the apparel and footwear sector of the chemistries that need to be avoided across this and other manufacturing sectors, as well as where innovation is needed,"

Joel Tickner, professor of public health at UMass Lowell and executive director of the Green Chemistry & Commerce Council, said. "The restriction on all PFAS for textile, leather and footwear finishing is consistent with growing scientific and policy concerns about the impacts of the class of PFAS chemicals. We look forward to working with ZDHC in growing the commercialization, adoption, scale of safer, more sustainable chemistries and materials to address the toxicity, biodiversity and climate impacts of our current generation of chemicals."

The ZDHC MRSL bans certain harmful chemical substances from intentional use in manufacturing facilities that process textile materials, synthetic leather, leather, and trim parts in textiles and footwear. It offers the industry a harmonized list of banned chemical substances and enables the ZDHC Gateway Chemical Module, the industry's largest list of safer alternative chemical formulations meeting the ZDHC MRSL requirement.

By using MRSL conformant chemical formulations found on the ZDHC Gateway, suppliers can assure their customers that they adhere to the requirements of the ZDHC MRSL, speeding up the industry's journey on its course toward a better environmental footprint.

The ZDHC MRSL Version 3.0 follows two previous updates of the ZDHC MRSL that achieved industrywide alignment through a gap

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analysis of previously existing brand-specific MRSLs. Changes include a restriction on all PFA substances, a limit for aniline in dyestuffs and the inclusion of a number of organic solvents.

According to Phil Patterson, chair of the MRSL Advisory Council who led the review process, "the ZDHC Roadmap to Zero Program continues to evolve."

"This enables us to take a tough but pragmatic approach to previously challenging topics such as solvents and chemicals that are recognized as being harmful but necessary for critical end uses, such as medical textiles or items for first responders," Patterson added.

#### Link

https://sourcingjournal.com/topics/rawmaterials/zdhc-pfas-chemicals-manufacturingrestricted-substances-list-textiles-footwear-373208/

Provided by Sourcing Journal

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#### 'Craziest' Shein Warehouse Demands Uncovered



One worker who shelves and picks orders for Shein complained of scraped feet and ruined shoes after one week of toiling at its warehouse. Others claimed that policies requiring them to alternate between excessively long day and night shifts every two weeks have scrambled their sleep patterns and overall sense of wellbeing. Still more described the piece-rate system that determines their wages as ambiguous, opaque and nowhere near the sums they were promised by recruiters.

As the fast-fashion Goliath which is best known for its low-priced, ultra-trendy clothing and footwear, prepares to expand its fulfillment footprint in the United States, a study about its logistics operations in its home country of China is raising further questions about working conditions behind the scenes.

R, an independent researcher who asked that his real name not be used, said he was inspired to investigate Shein's warehouses after participating in Swiss watchdog group Public Eye's November report about excessive overtime and dangerous conditions at a number

of the e-tailer's manufacturing sites in the city of Guangzhou, several of which functioned out of small, informal and unregulated workshops with barred windows, blocked stairways and no emergency exits.

"I figured that the logistics part of this whole business model was interesting, as well," R, who previously worked at a labor organization in southern China, told Sourcing Journal. Earlier this year, he pulled in a few of his colleagues to help look into the matter.

But the probe immediately hit a snag: Covid-19, which had triggered strict curbs in the Guangdong province. Another complication was that most of Shein's warehouses are located not in Guangzhou proper but in neighboring Foshan and Zhaoqing.

"They are not the kind of places that normal people would usually go," R said. "You...won't get there unless you actually have a job there." Visiting the sites and interviewing workers in person would have risked their personal safety, he added.

R quickly realized, however, that there was plenty they could find out remotely. Job ads and WeChat social media posts by recruiters and employees, both past and present, provided a

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wealth of information. They were also able to speak with former and current workers through Douyin, a.k.a. TikTok in China, though any findings will still need to be verified through future in-depth interviews, R said.

Almost immediately, the researchers were surprised by how much workers were walking. The sheer distances—70,000 to 80,000 steps a day, even during night shifts, according to one Douyin user—were a common complaint, plus a leading reason for what appeared to be a high turnover rate for positions that included receiving, sorting, shelving, picking dispatching products. Most positions did not have education or past work requirements, R said. To be considered for the job, applicants only had to be between 19 and 40 years old, able to recognize all 26 letters of the English alphabet and perform rudimentary computer tasks.

"Quite a few workers or ex-workers complained of broken shoes after one to two weeks of working there," R said. "That sheds some light on how hard the work is. If the shoes can't take it, you can imagine the feet can't take it as well."

Shein's warehouses operate on a two-shift basis that allows them to run 24 hours a day. Workers swap shifts every 15 days, according to employment postings. A fulfillment employee's day can range from 10 to 14 hours, depending on seasonal demand and the volume of items that need to be processed.

It isn't uncommon for a day shift to start at 8 a.m. and finish at 8 p.m, or a night shift to begin at 7 p.m. and end at 9 in the morning, the study found. While job ads note that a one-hour meal break is provided, researchers' conversations with workers reveal that the length of this respite can vary by facility.

Rest days are seasonal, too. Workers usually get between four and six days off each month, though the timing is neither fixed nor regular and mostly hinges on shift scheduling, according to recruiters. This can result in more than 10 days of consecutive work, as one employee's online attendance record showed, which is "clearly not in line" with Chinese regulations that limit workweeks to 44 hours and overtime to 36 hours per month, R said.

It was the shift switching many workers found hardest, however, with disordered sleep and the resulting decline in cognitive performance a frequent grievance.

"I don't think this gets the attention it deserves both inside China, as well as in the international media, because [turning] your whole life's schedule upside down every two weeks really puts a lot of pressure and strain [on] your body," he said. "I do think that the two-shift system is one of the craziest things that I can see among the workers."

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Recruiters, R said, promise that the hard work employees are required to put in will be rewarded by "relatively high" wages. Job listings claim, for instance, that it is "possible to earn up to 9,000 yuan or even more than 10,000 yuan a month," or roughly \$1,259 to \$1,399, which would indeed be "considerably higher" than the median income in most parts of Guangzhou.

Social media posts on Douyin and WeChat, however, have accused recruiters of misleading job seekers, insisting that only the highest-performing workers can achieve such rarified levels through the predominantly piece-rate system, which assigns an unknown value to every box or package processed through barcode scans. Interviews with former and current employees revealed, however, that the average worker garners between 6,000 yuan (\$839) and 8,000 yuan (\$1,119) a month "at best" during the busiest seasons.

R said that any mistakes workers make can incur penalties of between 20 yuan (\$2.80) to 50 yuan (\$6.99), the equivalent of one to two hours' pay, which "adds stress to the already stressful working environment." He added that it's "common" to find posts and comments from former employees who left their jobs within a few weeks of being hired because they "failed the Shein challenge." But even underachieving workers who linger are threatened with dismissal if they don't improve their productivity.

Temporary workers, which the warehouses take on en masse, especially during peak seasons, are even worse off, R said, since benefits and holiday pay are not included in their terms of employment at the warehouses he and his colleagues looked at. This, he added, is another violation of national laws.

Shein doesn't own its warehouses in China. All of the fulfillment centers the study examined were operated by third-party providers—some of them multinational names—such as GLP, Prologis and Vailog. Both employees and recruiters were fully cognizant that these were Shein-hired warehouses, however, with all online postings stating that they were looking for "Shein warehouse workers." (The abovementioned companies did not respond to a request for comment.)

"I'm not exactly sure about how much Shein knows about it, but I believe they do have a part in the budget setting for the logistics parts," R said. "if you're paying that low then...More importantly, so much of the wage is composed of basically piece wages, so you can imagine [workers] have to work at a very high intensity to chase a relatively higher salary."

Workers also tend to sign contracts with the recruitment agencies rather than the warehouses or with Shein itself, further muddying the employee-employer relationship

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and resulting in "ambiguous labor responsibilities" regarding social insurance contributions, compensation for work-related injuries and illnesses or severance pay, he added.

"I'm expecting [labor violations] to appear in different forms in the future," R said.

A Shein spokesperson said that the e-tailer complies with "relevant" laws and regulations within its operations.

"We also require our suppliers to abide by a code of conduct that includes standards for health, safety and labor practices," the spokesperson told Sourcing Journal. "Shein regularly partners with internationally recognized third-party agencies to conduct audits of our business practices and those of our suppliers. We remediate problems that are discovered. Shein will continue to work hard to ensure the continuous improvement of its entire supply chain."

Shein's distribution center in Indiana and planned warehouses in California and the East Coast are or will be company operated and "subject to the same strict code of conduct as all other facilities within our supply chain," the representative said.

Still, R said he's concerned that as the e-tailer grows, so too will exploitation. Even on the manufacturing front, he's seeing Shein suppliers drift into smaller towns in inner provinces such as Hunan and Jiangxi to save on rent and—potentially—skirt the stricter safety regulations found in larger cities.

#### Link

https://sourcingjournal.com/topics/labor/sheinwarehouse-fulfillment-china-workers-overtimewages-foshan-wechat-douyin-375663/

**Provided by Sourcing Journal** 

No.380 Sep, 2022



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# ASTM to develop testing standards for PFASs in consumer products



International standards organisation ASTM has set up a subcommittee to develop standards for determining the presence and levels of PFASs in consumer products.

Per- and polyfluoroalkyl substances (PFASs) "are intentionally added or inadvertently present" in a significant number of products, co-chair of the subcommittee, Rock Vitale, said. The ASTM's new standards would "provide guidance on how to prepare and analyse a wide variety of consumer product samples for PFAS".

The standards will help consumers, manufacturers and legislative and regulatory bodies understand the presence of PFASs in consumer products, the ASTM said.

The new subcommittee will operate under the ASTM's consumer products committee. Its work will focus on PFAS compounds most relevant to human and environmental health. The organisation is also calling on "chemical engineers, analytical chemists and advocacy group technical personnel" to participate in the development of the standards by joining the subcommittee.

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#### [ PFAS action ]

There have been multiple actions taken globally to tackle the prevalence of PFASs in consumer products in recent years. At EU level, a universal PFAS restriction proposal from the Netherlands, Germany, Denmark, Sweden and Norway is expected early next year, with entry into force anticipated for 2025.

Many businesses have also sought to phase out the persistent group of chemicals. For example, major fast food chains including KFC, Burger King, McDonald's and Starbucks are planning to eliminate PFASs from their packaging over the next one to four years.

The ASTM does not enforce the standards it develops, but many organisations and regulatory agencies incorporate the standards into their own requirements.

#### Link

https://chemicalwatch.com/564232/astm-to-develop-testing-standards-for-pfass-in-consumer-products

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