

April 2021
Issue 115

Army Industrial Hygiene News and Regulatory Summary

Hazardous Substances

A Chemical in Cleaning Products May Increase Our Risks of Parkinson's Disease and Cancer

Special Interest Articles:

- [Theatrical Fog](#)
- [Worker Well-Being](#)
- [Cardio metabolic Risk](#)
- [USAMRICD](#)
- [Mandatory Vaccination](#)

Researchers warn that the growing number of Parkinson's disease cases may be linked to a chemical found in some household cleaning products such as paint stripper, spot remover, and carpet cleaner. The number of Americans with Parkinson's has gone up 35% in the past decade, and could double in the next 25 years, the Guardian reported. Evidence suggests that the chemical trichloroethylene could be at least partly to blame.

Trichloroethylene (abbreviated as TCE) is used as an industrial degreaser and solvent to remove stains and clean a variety of materials, including clothing, rugs, and metal equipment. It can also be found in some adhesives, like arts and craft sprays, furniture cleaners, and car cleaning products, which can be risky if people inhale the fumes or get it on their skin, according to the EPA.



Research has found that exposure to trichloroethylene is a risk factor for developing Parkinson's years or even decades later, based on data from people who worked in environments where the chemical is used.

Read more:

<https://www.yahoo.com/news/chemical-cleaning-products-may-increase-193157689.html?bingParse>

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Occupational Exposure to Glass Wool Fibers: An Update



In the decade since the last published comprehensive report of occupational exposures in the glass wool insulation industry, many process and regulatory changes have occurred in the glass wool manufacturing sector. This paper assesses whether any significant changes in worker exposures to glass wool fibers have resulted from these process and regulatory changes. The analysis compares worker exposures to glass wool overall and across different product and job categories in the

manufacturing sector prior to and after 2007, the data cutoff period for the last comprehensive update of occupational exposures in this industry. The exposure data were downloaded from the North American Insulation Manufacturers Association's synthetic vitreous fiber (SVF) exposure database, which has been continually updated with all new available SVF exposure data for the past two decades. This analysis finds no major changes in worker exposures in the glass wool manufacturing industry over the past decade, with exposures remaining well below the 1 f/cc voluntary permissible exposure limit.

Read more:

<https://pubmed.ncbi.nlm.nih.gov/33861940/>

Research by University of Minnesota Medical School Students Suggests Protocol Change for Tear Gas Deployment



A new study by five doctoral students in neuroscience at the University of Minnesota Medical School calls attention to a lack of regulation and unknown long-term health effects of tear gas. Based on their research, the group recommends changing the protocols around the use of tear gas as a crowd control measure at both the local and national level.

"Following the murder of George Floyd and the protests in our city, we felt compelled to dig into the police force used during those protests. We are trained to look at data and draw conclusions," said Jennifer Brown, a graduate student in the U of M Medical School's Graduate Program in Neuroscience and lead author of the study. "Investigating the use of tear gas on crowds was something we felt we could contribute to this social justice movement."

Read more:

https://www.eurekalert.org/pub_releases/2021-04/uomm-rbu042621.php

Scientists Adapt Solar Energy Technology to Detect Chemical Warfare Agents & Pesticides

In a colourful solution to a dangerous problem, Australian scientists are adapting a component from cutting-edge solar cells to design a rapid, light-based detection system for deadly toxins.

While use of chemical warfare agents like sulfur mustard - better known as mustard gas - is banned internationally, we do rely on other strictly-controlled chemicals for agriculture, industry and throughout our daily lives, including fumigants like methyl iodide, which is used to control insects and fungi. The wrong amounts or incorrect use



of these fumigants can be harmful to people and degrade the ozone layer

Read more:

https://www.eurekalert.org/pub_releases/2021-03/aco-sas030321.php

Household Aerosols Now Release More Harmful Smog Chemicals than All UK Vehicles



Aerosol products used in the home now emit more harmful volatile organic compound (VOC) air pollution than all the vehicles in the UK, new research shows.

A new study by the University of York and the National Centre for Atmospheric

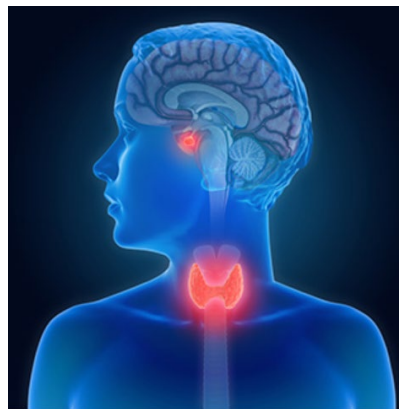
Science reveals that the picture is damaging globally with the world's population now using huge numbers of disposable aerosols—more than 25 billion cans per year.

This is estimated to lead to the release of more than 1.3 million tons of VOC air pollution each year, and could rise to 2.2 million tons by 2050.

Read more: <https://phys.org/news/2021-04-household-aerosols-smog-chemicals-uk.html>

Systematic Review: Exposure to Endocrine-Disruptors Could Elevate Breast Cancer Risk

Exposure to certain endocrine-disrupting chemicals could elevate the risk of breast cancer, according to a new comprehensive systematic review of epidemiological research. However, for many chemicals, evidence is inconsistent or still limited. The review was carried out by researchers at the universities of Hong Kong and Eastern Finland and published in *Critical Reviews in Food Science and Nutrition*.



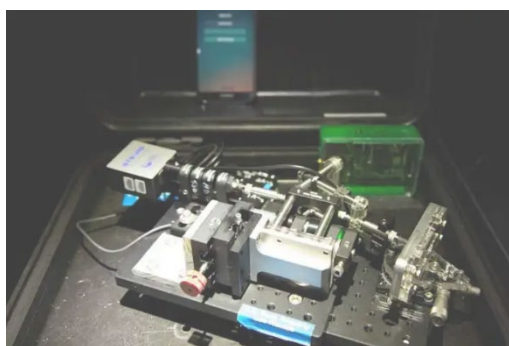
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Endocrine-disrupting chemicals (EDCs) can interfere with the body's hormonal system, also called the endocrine system, and are widely present in the environment. They originate from a variety of sources, including pesticides, plasticizers and other industrial and pharmaceutical chemicals, as well as natural sources. Humans are often exposed to EDCs through food, but other

possible exposure routes include drinking water, skin contact and air.

Read more: <https://www.news-medical.net/news/20210420/Systematic-review-Exposure-to-endocrine-disruptors-could-elevate-breast-cancer-risk.aspx>

New Biosensor Designed to Detect Toxins and More



A

EnGineered Analytic Sensor with aUtomated Sampling (PEGASUS) is a miniaturized waveguide-based optical sensor that can detect toxins, bacterial signatures, viral signatures, biotreats, white powders and more, from samples such as blood, water, CSF, food, and animal samples.

device from Los Alamos National Laboratory researchers is not quite the Star Trek "tricorder" medical scanner, but it's a step in the right direction. The Portable

Read more: <https://phys.org/news/2021-04-biosensor-toxins.html>

Radiation

IAEA Releases New Safety Report for Veterinarians Using Radiation

Animals, whether domesticated or wild, bring unique challenges to the field of radiation protection. Naturally, animals don't tend to cooperate, and veterinary professionals need special techniques to assure clear medical imaging or effective treatment. Large species like horses, cows, lions and elephants require scaled-up equipment that use higher doses of



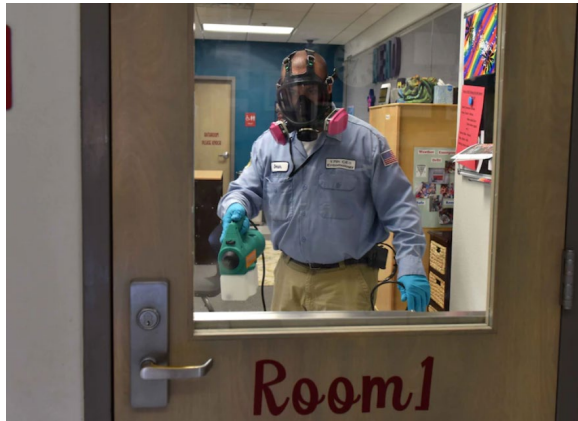
radiation in conventional X ray procedures and computed tomography (CT) to achieve good imaging results. The newly released IAEA report No. 104 Radiation Protection and Safety in Veterinary Medicine from the Safety Report Series, provides advice for professionals in veterinary uses of radiation to help them safely carry out their work.

Read more:

<https://www.iaea.org/newscenter/news/iaea-releases-new-safety-report-for-veterinarians-using-radiation>

Ventilation

Theatrical Fog Formula Approved As Antimicrobial Air Treatment



As more is known about COVID-19, preventive measures continue to emerge and compete. The engineering firm NV5, which provides third-party verification on WELL v2 projects for the Green Business Certification Institute, has been recommending to its clients Safe Traces, a solution that uses DNA-based sprays and sensors to verify engineering and HVAC controls for airborne contaminants. Its veriDART control

verification uses “aerosol mobility indicators” to identify hotspots, assess ventilation and filtration, and inform remediations.

On January 15, the U.S. Environmental Protection Agency (EPA) announced approval of an emergency exemption request for the use of Grignard Pure, which claims to be the first-ever antimicrobial air treatment solution. Georgia and Tennessee were the first states granted exemptions to use Grignard Pure in certain indoor spaces. Another 17 states have expressed interest, according to Etienne Grignard, co-founder and CEO of Grignard Company in Rahway, N.J., whom BD+C interviewed in February.

Read more:

<https://www.bdcnetwork.com/theatrical-fog-formula-approved-antimicrobial-air-treatment>

PPE

CDC Tightens Its N95 Guidances

The Centers for Disease Control and Prevention (CDC) has updated its guidance documents aimed primarily at healthcare industry employers in regard to N95 masks, ending changes it had made during the period when the masks were in short supply last year.

Last year, the CDC worked with the National Institute for Occupational Safety and Health (NIOSH) to allow usage of some kinds of masks exceeding the manufacturer-designated shelf life in times of increased demand and decreased supply, so long as appropriate storage practices were followed.



Read more:

<https://www.ehstoday.com/standards/article/21161425/cdc-tightens-its-n95-guidances>

Noise

APP OF THE DAY: 'Heardthat' Cuts through the Noise, Helps With Hearing Loss



I've seen a lot of apps in the past few years browsing the app stores for super fun "App of the Day" features. I haven't seen many apps as impressive as "HeardThat," a brand

new app for iOS and Android that helps people hear conversations in a noisy environment.

I first heard about "HeardThat" at CES 2020 in Las Vegas. Matt Potma had a small exhibit space demonstrating the app. I usually walk past the countless number of "app exhibits" because many never actually become available or if they do become

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available they're outdated before ever getting into the app stores. "HeardThat" is an incredible technology. Potma pitched it like this: "HeardThat is an app to help people hear through noisy situations like here at CES."

Read more:

<https://www.wrcbtv.com/story/43702822/app-of-the-day-heardthat-cuts-through-the-noise-helps-with-hearing-loss>

Preventive Medicine

Study Reports Links between Blood Types and Disease Risks

People with certain blood types are more likely to have blood clots or bleeding conditions, kidney stones, or pregnancy-induced hypertension, suggests a study published today in *eLife*.

The study confirms previously identified connections between certain blood types and the risk of blood clots and bleeding, and makes a new connection between kidney stones and having type B blood as compared to O. The discoveries may lead to new insights on how a person's blood type may predispose them to developing a certain disease.

| Blood group | Antigen(s) present on the red blood cells | Antibodies present in the serum | Genotype(s) |
|-------------|---|---------------------------------|-------------|
| A | A antigen | Anti-B | AA or AO |
| B | B antigen | Anti-A | BB or BO |
| AB | A antigen and B antigen | None | AB |
| O | None | Anti-A and Anti-B | OO |

Read more:

https://www.eurekalert.org/pub_releases/2021-04/e-sr1042721.php

NIOSH Questionnaire Aimed at Gauging, Enhancing Worker Well-Being



NIOSH has created a questionnaire intended to help employers assess and improve worker well-being by collecting employee observations of various aspects

of their physical and mental health on and off the job.

The NIOSH Worker Well-Being Questionnaire, or WellBQ, includes 68 questions shaped by the worker well-being framework developed by the agency, in conjunction with the nonprofit research institute RAND Corp. The free, anonymous questionnaire is estimated to take 15

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minutes to complete and covers topics such as work evaluation and experience; workplace policies and culture; workplace physical environment and safety climate; health status; and home, community and society.

Read more:

<https://www.safetyandhealthmagazine.com/articles/21126-niosh-questionnaire-aimed-at-gauging-enhancing-worker-well-being>

Review Finds Increased MRSA Risk From Dog Ownership

A review and meta-analysis of previously published studies has identified dog ownership as a risk factor for methicillin-resistant *Staphylococcus aureus* (MRSA) colonization, German researchers reported last week in the *Journal of Antimicrobial Chemotherapy*.



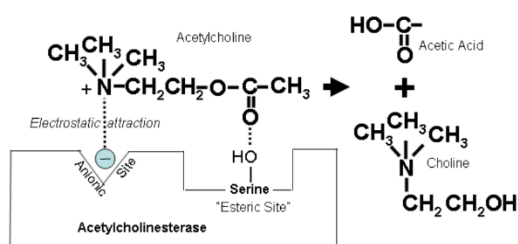
To get a better understanding of the risk for multidrug-resistant organism (MDROs) colonization posed by pet ownership, the researchers conducted three separate reviews and meta-analyses of literature on pet ownership and MRSA, third-generation cephalosporin-resistant Enterobacterales (3GCRE) and carbapenem-resistant Enterobacterales (CRE), and vancomycin-resistant Enterococcus (VRE). The primary

outcome was the relative risk of carrying an MDRO in humans with pet contact (including dogs, cats, rodents, birds, and reptiles) compared with those without pet contact.

Read more:

<https://www.cidrap.umn.edu/news-perspective/2021/04/news-scan-apr-19-2021> (scroll down)

Profiling the Tox21 Chemical Collection for Acetylcholinesterase Inhibition



Background:

Inhibition of acetylcholinesterase (AChE), a biomarker of organophosphorous and carbamate exposure in environmental and occupational human health, has been commonly used to identify potential safety liabilities. So far, many environmental chemicals, including drug candidates, food additives, and industrial chemicals, have not

been thoroughly evaluated for their inhibitory effects on AChE activity. AChE inhibitors can have therapeutic applications (e.g., tacrine and donepezil) or neurotoxic consequences (e.g., insecticides and nerve agents).

Objectives:

The objective of the current study was to identify environmental chemicals that inhibit AChE activity using *in vitro* and *in silico* models.

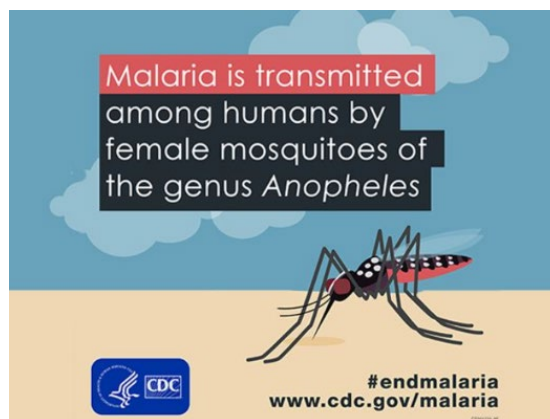
Read more:

<https://ehp.niehs.nih.gov/doi/10.1289/EHP6993>

Highly Effective Malaria Vaccine Could Be a Game-Changer, Early Trial Suggests

A malaria vaccine developed by the University of Oxford proved to be 77% effective in early clinical trials, suggesting it could be a possible breakthrough in the fight against the one of the world's deadliest infectious disease.

Malaria is caused by the *Plasmodium* parasite transmitted to people through the bite of *Anopheles* mosquitoes. In 2019, there were 229 million cases of malaria worldwide and 409,000 deaths, according to The World Health Organization's (WHO) World malaria report. About 94% of all of these cases and deaths occurred in Africa and 67% of the deaths were among children under the age of 5.



Read more:

<https://www.livescience.com/oxford-malaria-vaccine-promising-results.html>

Environmental Health

Nearly All Fine Particulate Air Pollution Sources Disproportionately Affect People of Color in the US



working for
environmental
justice
www.epa.gov/environmentaljustice

Nearly all types of fine particulate air pollution (PM2.5) emission sources disproportionately affect people of color in the U.S., according to a new study conducted with data from 2014. In contrast, Whites experienced lower than average

PM2.5 exposure in 2014 and were only disproportionately affected by one sector - coal electric generation. The authors note that people of color at every income level experienced disproportionately high

exposure to PM2.5, suggesting these disparities are not simply tied to economic differences. While it has been known that U.S racial-ethnic minorities experience disproportionately high PM2.5 exposure, the relative contributions of different types of PM2.5 emission sources to this disparity have remained unknown. To investigate, Christopher Tessum and colleagues used an air quality model to estimate emissions from 5,434 PM2.5 source types listed in the 2014 EPA National Emissions Inventory.

Read more:

https://www.eurekalert.org/pub_releases/2021-04/aaft-naf042621.php

Early Life Exposure to Chemical Group PFAS Increases Cardiometabolic Risk through Adolescence

Early exposure to compounds known as Per- and Polyfluoroalkyl Substances — also referred to as PFAS — can lead to cardiometabolic defects later in life, according to a study led by University researchers. The study was one of four nominated as papers of the month by the National Institute of Environmental Health Science last month.



PFAS are a group of man-made chemicals that are “found in a wide range of consumer products that people use daily” such as non-stick kitchenware and have been linked to adverse health effects, according to the Environmental Protection Agency. The chemical structure of PFAS makes them very resistant to breakdown, so although the manufacturing of some of these chemicals has been phased out, they

can still be found in food, water and the bodies of living organisms.

Read more:

<https://www.browndailyherald.com/2021/04/06/early-life-exposure-chemical-group-pfas-increases-cardiometabolic-risk-adolescence/>

Scientists Weaponize Bacteria to Fight Microplastics in the Environment



Researchers have developed a new technique to trap and recover microplastics from the environment by using microbes. Microplastics are tiny plastic particles less than 5 millimeters long that originate from a variety of sources, including debris from large plastic items that have been broken down over time into smaller pieces.

Read more: <https://thehill.com/changing-america/sustainability/environment/550804-scientists-weaponize-bacteria-to-fight>

Gut Fungi: Unexpected Source of Novel Chemicals

Anaerobic fungi, which die in the presence of oxygen, dwell in herbivore guts and help them digest their last leafy meal. In their evolutionary history, these fungi branched off early from aerobic fungi, which can breathe oxygen—just like we do. Oxygen is a rich source of energy, and because anaerobic fungi can't harness it, scientists long held that these fungi don't have the



energy to make complex compounds called natural products. Yet, combing through the genomes of four anaerobic fungal species has revealed, for the first time, that this group is unexpectedly powerful: they can whip up dozens of complex natural products, including new ones.

Read more: <https://phys.org/news/2021-04-gut-fungi-unexpected-source-chemicals.tml>

Ergonomics

RR1152 - An Ergonomics Study of the Minimum Space Requirement for Removal of Asbestos Insulating Board (AIB) Ceiling Tiles



AIB ceiling tile

Working in confined spaces with height restrictions can introduce a risk of developing musculoskeletal disorders such as pain and disorders of the back and neck. This report describes research to estimate the acceptable minimum workspace height

for the removal of Asbestos Insulating Board (AIB) tiles from suspended ceilings using a scaffolding platform installed below the ceiling. HSE regulatory inspectors had inconsistent information from industry stakeholders about the basis of the heights in use. Furthermore, there is little relevant information in the scientific literature. A laboratory-based study, with non-industry volunteers, examined postural and other ergonomic effects for nine workplace heights for the tasks typical of AIB removal.

Read more: <https://www.hse.gov.uk/research/rrhtm/rr1152.htm>

Safety

Are Adverse Reactions to Vaccines Recordable? OSHA Updates COVID-19 FAQ List

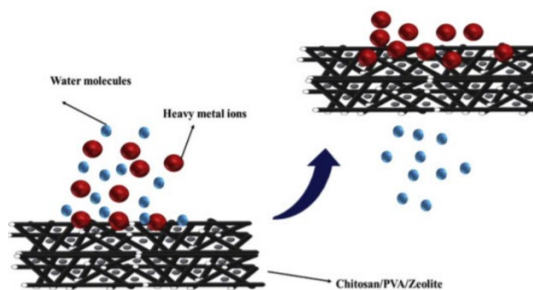
OSHA is requiring the recording of adverse reactions to COVID-19 vaccines only when vaccination is required by the employer, the agency says in an addition to its series of frequently asked questions on protecting workers from exposure to the coronavirus. Establishments are required to record an adverse reaction to a vaccine only if the illness is work-related, a new case and meets at least one of OSHA's general recording criteria in 1904.7. Those criteria include days away from work, restricted work or medical treatment beyond first aid. If a vaccine is required as a condition of employment, any adverse reaction is considered work-related.



Read more:

<https://www.safetyandhealthmagazine.com/articles/21159-are-adverse-reactions-to-vaccines-recordable-oshu-updates-covid-19-faq-list>

New Material Could Better Protect Soldiers, Athletes and Motorists



Soldiers, athletes, and motorists could lead safer lives thanks to a new process that could lead to more efficient and re-useable protection from shock and impact,

explosion, and vibration, according to a new study.

Pressurized insertion of aqueous solutions into water-repellent nanoporous materials, such as zeolites and metal-organic frameworks, could help to create high-performance energy absorbing systems.

Read more: <https://phys.org/news/2021-04-material-soldiers-athletes-motorists.html>

Study Finds Higher Risk of Overdose in Patients Treated With Opioids to Reduce Dental Pain

When they go to the dentist to get a tooth pulled or another procedure, patients might not think that the prescription they receive to ease their pain could put them or their family at risk of an opioid overdose. But a new study from the University of Michigan shows that overdose rates were two and a half times higher among patients who filled a prescription for an opioid medication after a dental procedure, compared with those who didn't fill such a prescription.



Read more: <https://www.news-medical.net/news/20210429/Study-finds-higher-risk-of-overdose-in-patients-treated-with-opioids-to-reduce-dental-pain.aspx>

Overdose rates were also higher among the family members of such patients - possibly from misuse of the leftover pills.

CDC Revises COVID-19 Guidance on Cleaning and Disinfecting

| Good Idea | Be Careful | Don't Do It |
|--|---|---|
| <p>Follow CDC, State, and Local Public Health Guidelines</p> <p>According to the Centers for Disease Control and Prevention (CDC), COVID-19 is mainly spread through the air. The risk of getting the virus by touching a contaminated surface is thought to be low.</p> | <p>Be Careful Using Disinfectants Around People with Asthma</p> <p>Disinfectants can trigger an asthma attack. If you have asthma, you may need to take extra precautions like avoiding areas where people are cleaning and disinfecting or making sure the space is well ventilated.</p> | <p>Don't Ask Children or Students to Apply Disinfectants</p> <p>Disinfectants are powerful tools for controlling the spread of disease, and they can harm kids' health if used or stored incorrectly. Children and students should not apply disinfectants, and they should be kept out of children's reach.</p> |
| <p>Clean Surfaces with Soap and Water</p> <p>Normal routine cleaning with soap and water lowers the risk of spreading COVID-19 by removing germs and dirt from surfaces. In most situations, cleaning is enough to reduce risk.</p> | <p>Be Careful with Fogging, Fumigating, and Wide-Area or Electrostatic Spraying</p> <p>Make sure your product's label includes directions for the application method. Follow all directions, including precautions. If a product isn't labeled for these application methods, using it that way might be risky or ineffective.</p> | <p>Don't Ignore the Label Directions</p> <p>If you don't follow the label directions, disinfectant products may be ineffective or unsafe. Do not apply disinfectants to skin, pets or food. Do not dilute disinfectants or mix them with other chemicals unless the label tells you to. Don't think that twice the amount will do twice the job.</p> |
| <p>Use EPA-Registered Disinfectants According to Label Directions</p> <p>Disinfectants further lower the risk of spreading COVID-19 by using chemicals to kill germs. Use disinfectants on high-touch surfaces when you know or suspect someone around you is sick with COVID-19.</p> | <p>Be Careful With UV Lights or Ozone Generators</p> <p>UV lights or ozone generators may be risky or ineffective. EPA cannot verify if or when it is appropriate to use these devices. Check out the guidance at: www.epa.gov/uv19</p> | <p>Don't Use Unregistered Disinfectants</p> <p>If a product says that it kills SARS-CoV-2 (COVID-19), but it doesn't have an EPA registration number, it may not be safe or effective. Federal law requires disinfectants to be registered with EPA.</p> |

For CDC public health guidelines, visit: www.cdc.gov/2019ncov
For information on disinfectants, visit: www.epa.gov/2019ncov April 2021

Prompted by available data and studies that show the risk of contracting COVID-19 via contact with surfaces is low, the Centers for Disease Control and Prevention is relaxing its exposure-prevention guidance on cleaning and disinfecting. Cleaning and disinfecting has been a key element of CDC guidance during the pandemic. Now, in a science brief issued April 5 and based on available epidemiological data and studies of environmental transmission factors, the agency says, "Surface transmission is not the main route by which SARS-CoV-2 (the coronavirus that causes COVID-19) spreads." Instead, the highest risk of

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transmission is via exposure to respiratory droplets carrying the virus.

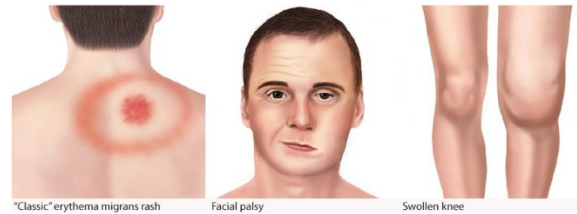
[m/articles/21160-cdc-revises-covid-19-guidance-on-cleaning-and-disinfecting](https://www.cdc.gov/media/releases/2020/s1105-covid-19-guidance-on-cleaning-and-disinfecting.html)

Read more:

[https://www.safetyandhealthmagazine.co](https://www.safetyandhealthmagazine.com)

New Test for Lyme Disease Can Reliably Distinguish Between Early- And Late-Stage Patients

For those who live in an area blighted by ticks, the threat of Lyme disease can cast a shadow over the joy of spring and summer. These blood-sucking arachnids can transmit bacteria into the bloodstream of their unsuspecting host, causing the disease. Early treatment is essential, but current tests are not usually sensitive enough to detect the disease in early-stage patients. A recent study in open-access journal *Frontiers in Microbiology* reveals a new test for Lyme disease, which is the first to reliably distinguish between early- and late-stage patients. The test detects a genetic



sequence left by a virus that resides in Lyme-causing bacteria, and can detect just one bacterial cell in a small blood sample.

Read more:

<https://www.news-medical.net/news/20210407/New-test-for-Lyme-disease-can-reliably-distinguish-between-early-and-late-stage-patients.aspx>

A New Standard for Managing Psychosocial Risk



The stress of adhering to pandemic restrictions and requirements, and the effect of personal changes such as home schooling and bereavement, has been immense. This impact of the pandemic has left many organisations feeling confused or under-supported on how best to manage

employee wellbeing, both now and in the future.

Additional guidance from a new global standard looks set to be introduced this June. Quality standard ISO 45003 incorporates managing psychosocial risk; the factors that impact employees 'psychological response' to their work and workplace conditions, as well as relationships with co-workers and colleagues.

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Read more:

<https://www.personneltoday.com/hr/a->

[new-standard-for-managing-psychosocial-risk/](#)

Emergency Preparedness

Winter Storm Uri Spotlights Gaps in Military Base Preparedness

One month after Texas's power grid failed in the face of Winter Storm Uri, which unleashed deadly cold, ice and snow across several states, the U.S. military is still trying to address its effects and plan for the next natural disaster.

Uri hit the Army hard, damaging nearly 700 facilities and more than 1,300 privatized military homes at four installations in Texas, Oklahoma, Kansas and Louisiana. The service has since repaired all critical infrastructure and completed more than half of all needed fixes caused by the storm,



an Army official told House lawmakers Friday.

Read more:

<https://www.armytimes.com/news/pentagon-congress/2021/03/27/winter-storm-uri-spotlights-gaps-in-military-base-preparedness/>

Deployment Health

USAMRICD Develops ChemDX Field Diagnostic System to Detect Chemical Exposure



Drawing from the technology used by diabetics to monitor their glucose levels, Dr. Shane Kasten at the U.S. Army Medical Research and Development Command's U.S. Army Medical Research Institute of Chemical Defense developed an ultra-portable, easy-to-use device to provide early warning of suspected exposure to a chemical warfare nerve agent. The ChemDx Test System is designed to inform both

medical and leadership decisions as to the timely use of medical countermeasures, thereby enhancing survivability with respect to medical treatment of chemical casualties on the battlefield and lowering the burden on the medical response. A utility patent for the device was issued on February 9.

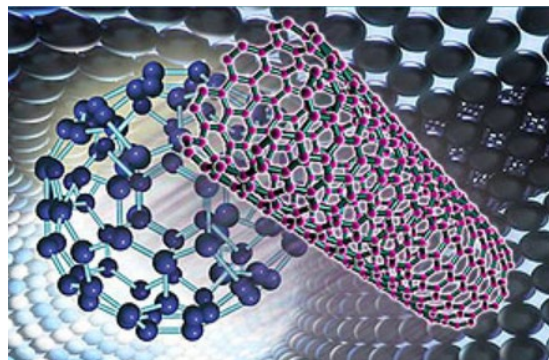
Read more:

https://mrhc.amedd.army.mil/index.cfm/media/articles/2021/USAMRICD_develops_chemDx_field_diagnostic_system_to_detect_chemical_exposure

Nanotechnology

NIA Publishes Position Paper on Changing Regulatory Landscape and Language for the Nanoscale

The Nanotechnology Industries Association (NIA) has published a March 2021 position paper, *A changing regulatory landscape and language for the nanoscale*, that examines the transition from “nanomaterial” to “nanoforms” to reflect better the differences in nanomaterial properties both in relation to bulk counterparts and to nanoforms of the same substance. In the paper, NIA describes a transition phase where the language of nanoforms is used more widely and examples of nanoform sets can be increasingly demonstrated in the public domain, while there is still a “significant” learning curve for both industry and the European Chemicals Agency (ECHA). NIA recommends that all stakeholders reassess the language they use where relevant, “particularly when discussing hazard, and where non-specific terminology may be misleading and result



in confusion and mistrust in the safety of substances at the nanoscale.” NIA calls “for the use of the term ‘nanoform’ as a way of referring to specific nanomaterials within a given class.

Read more:

<https://www.natlawreview.com/article/nia-publishes-position-paper-changing-regulatory-landscape-and-language-nanoscale>

Regulatory Research & Industrial Hygiene Professional News

DOL

**DOL, Using New Power for 1st Time, Orders Construction Company to
Stop All Projects for Violations of Work Rules**



Newark-based Cunha Construction has been issued a companywide stop-work order by the New Jersey Department of Labor & Workforce

Development due to repeated and ongoing violations of state wage and hour laws.

According to the DOL, this is the first time it has used its authority to pause all work by a single entity rather than doing so on a per-

project basis. The DOL said the order will remain in effect until the contractor complies with state wage and hour laws and all outstanding back wages and penalties have been paid.

Read more: <https://www.roi-nj.com/2021/05/03/law/dol-using-new-power-for-1st-time-orders-construction-company-to-stop-all-projects-for-violations-of-work-rules/>

FDA

**FDA Commits to Advancing Two Tobacco Product Standards to Reduce
Disease, Death from Smoking**

Today, the U.S. Food and Drug Administration announced it is committing to advancing two tobacco product standards to significantly reduce disease and death from using combusted tobacco products, the leading cause of preventable death in the U.S. The FDA is working toward issuing proposed product standards within the next year to ban menthol as a



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characterizing flavor in cigarettes and ban all characterizing flavors (including menthol) in cigars; the authority to adopt product standards is one of the most powerful tobacco regulatory tools Congress gave the agency.

Read more: <https://www.news-medical.net/news/20210429/FDA-commits-to-advancing-two-tobacco-product-standards-to-reduce-disease-death-from-smoking.aspx>

NIOSH

CDC Plans Upgrade for Personal Protective Technologies Facility

National Personal Protective Technology Laboratory (NPPTL)



NIOSH's National Personal Protective Technology Laboratory is set to undergo a \$14 million renovation and expansion, the Centers for Disease Control and Prevention

and research and development of new personal protective equipment technologies.

CDC is slated to start developing design plans in the fall, with construction at the Pittsburgh facility scheduled to begin the next summer. The project is expected to be completed in late 2023.

announced March 29.

The project is intended to support the lab's Human Performance and Physiology Branch, its respirator certification program,

Read more:

<https://www.safetyandhealthmagazine.com/articles/21142-cdc-plans-upgrade-for-personal-protective-technologies-facility>

OSHA

OSHA Moves Closer to Issuing Emergency Temporary Standard on COVID-19

OSHA on April 26 submitted for review to the White House Office of Information and Regulatory Affairs a draft of an emergency temporary standard related to COVID-19 –

one of the final steps before the ETS can be published in the *Federal Register*.

OIRA reviews typically last at least a couple of weeks, but the timeline for this ETS is unclear. OSHA hasn't issued an ETS since

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November 1983, and that one (related to asbestos) was invalidated by the U.S Court of Appeals for the 5th Circuit about four months later.

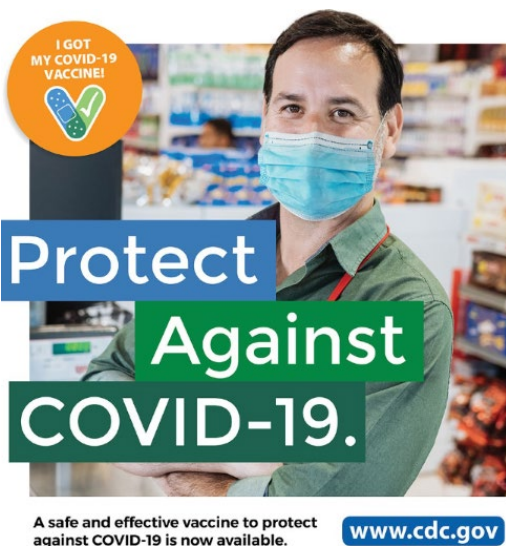
Read more:

<https://www.safetyandhealthmagazine.com/articles/21162-osha-moves-closer-to-issuing-emergency-temporary-standard-on-covid-19>



CAL/OSHA adopts new emergency, temporary COVID-19 regulations

OSHA Releases Guidance for Employers Considering Vaccine Requirements



On April 20, 2021, the Occupational Safety and Health Administration (OSHA) released three new FAQs for employers who recommend or require employees to

receive COVID-19 vaccines. OSHA is responsible for enforcing workplace safety standards across the US.

McDermott previously reported that employers can require employees to be vaccinated as a condition of employment, though employers should consider several factors before making the decision to require employee vaccinations. The new OSHA guidance highlights additional considerations when requiring employee vaccinations.

Read more:

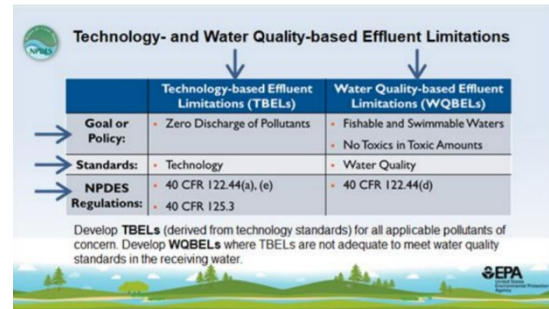
<https://www.natlawreview.com/article/osh-a-releases-guidance-employers-considering-vaccine-requirements>

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EPA

EPA Considering Revised Effluent Limitations Guideline Relating to PFAS

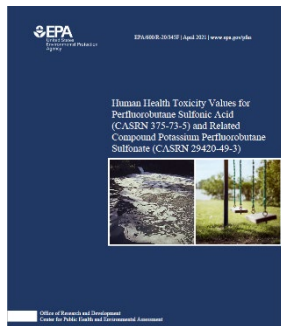
Recently, the U.S. Environmental Protection Agency (EPA) took a preliminary step toward requiring limits on some National Pollutant Discharge Elimination System (NPDES) discharges of per- and polyfluoroalkyl substances (PFAS) into surface water. On March 17, EPA issued an advance notice of proposed rulemaking pursuant to the Clean Water Act (CWA), which seeks public comment on data EPA has collected about certain PFAS discharges to surface water and requests additional information about businesses that make or use these substances (the ANPRM). The public has until May 17, 2021, to submit comments.



Read more:

<https://www.natlawreview.com/article/epa-considering-revised-effluent-limitations-guideline-relating-to-pfas>

EPA Releases Updated PFBS Toxicity Assessment



The U.S. Environmental Protection Agency (EPA) announced on April 8, 2021, that it is releasing an updated toxicity assessment for perfluorobutane

sulfonic acid (PFBS), which is a member of the group of per- and polyfluoroalkyl

substances (PFAS). EPA states that this PFBS assessment is part of its commitment to restore scientific integrity to all of the Agency's actions and increase the amount of research and information available to the public on PFAS.

Read more:

<https://www.natlawreview.com/article/epa-releases-updated-pfbs-toxicity-assessment>

APHC

Training

DEFENSE COLLABORATION SERVICES HAS UPGRADED (HTML5)

ARMY IH WEBINAR DAY HAS A NEW LINK

- [HTTPS://CONFERENCE.APPS.MIL/WEBCONF/ARMYIHWEBINARDAY](https://conference.apps.mil/webconf/armyihwebinarday)
- CHROME OR FIREFOX REQUIRED TO JOIN
- WEB CONF PIN REMAINS THE SAME 170750506
- WEB CONF DIAL IN REMAINS THE SAME 410-874-6300 OR DSN: 312-874-6300
- AUDIO/MIC FUNCTIONALITY WITHIN MEETING (NO CALL IN REQUIRED)
- ADDED FUNCTIONALITY (BETTER SHARE SCREEN, RECORDING, MORE MODERN FEATURES, POLLING, PRESENTER TOOLS, SWIFT CHAT, WEBCAM, ETC.)

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2021 QUARTERLY ARMY IH WEBINAR DAY

[HTTPS://CONFERENCE.APPS.MIL/WEBCONF/ARMYIHWEBINARDAY](https://conference.apps.mil/webconf/armyihwebinarday)

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|-----------------|----------------|--|----------------|
| 12/2/2020 | Monster | Building Downdraft Tables in DOEHS-IH | Steven |
| 12/2/2020 | Leader | Measuring Downdraft Ventilation | Belden |
| 12/2/2020 | SME | Downdraft Ventilation Q/A | Belden |
| 12/2/2020 | SME | DOEHS-IH Report Standardization | Delk |
| 12/2/2020 | Leader | Compressed Air use with Heavy Metals | Hueth |
| 3/3/2021 | Leader | Vehicle Maintenance Shop Design Reviews | Parks |
| 3/3/2021 | Monster | Building Vehicle Exhaust in DOEHS-IH | Steven |
| 3/3/2021 | Leader | Measuring Vehicle Exhaust | Parks |
| 3/3/2021 | SME | Vehicle Exhaust Q/A | Parks |
| 3/3/2021 | SME | Vehicle Exhaust Ototoxins Q/A | Merkley |
| 6/2/2021 | Monster | Building Drive-in/Drive-through Paint Booths in DOEHS-IH | Steven |
| 6/2/2021 | Leader | Measuring Drive-in/Drive-through Paint Booths | Belden |
| 6/2/2021 | SME | Drive-in/Drive-through Paint Booth Q/A | Belden |
| 6/2/2021 | SME | Letterkenny Paint booth incident/accident | Wisniewski |
| 9/1/2021 | Monster | Building Dilution Ventilation in DOEHS-IH | Steven |
| 9/1/2021 | Leader | Measuring Dilution Ventilation | Parks |
| 9/1/2021 | SME | Dilution Ventilation Q/A | Parks |
| 9/1/2021 | SME | Sampling Qualifiers | Secrest |

Army Industrial Hygiene News and Regulatory Summary

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Professional Development and Career Programs

For Army Industrial Hygienists and Industrial Hygiene Technicians, Professional Development is through the Army Safety and Occupational Health (SOH) Career Program, known as Career Program 12 (CP-12).

Career Programs were established to ensure there is an adequate base of qualified and trained professional, technical, and administrative personnel to meet the Army's current and future needs.

Planned training and development are essential elements to building a successful career.

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