



WELL v2

Concept summary

MATERIALS



MATERIALS



MATERIALS

ISSUE

The health and environmental impacts of most chemicals in circulation, despite their ubiquity, are unknown.

Many of the chemicals that were ubiquitously used in the past have been found to be toxic, persistent and prone to bioaccumulation.





MATERIALS

IMPACT

The WELL Materials concept aims to increase literacy on materials by assessing and avoiding hazardous chemicals in materials used in building construction, furnishing and operation, in order to minimize impacts to human and environmental health.



MATERIALS

Reduce human exposure, whether direct or through environmental contamination, to chemicals that may impact health during the construction, remodeling, furnishing and operation of buildings.

- X01 Material Restrictions*
- X02 Interior Hazardous Materials Management*
- X03 CCA and Lead Management*
- X04 Site Remediation
- X05 Enhanced Material Restrictions
- X06 VOC Restrictions
- X07 Materials Transparency
- X08 Materials Optimization
- X09 Waste Management
- X10 Pest Management and Pesticide Use
- X11 Cleaning Products and Protocols
- X12 β Contact Reduction



X01 MATERIALS RESTRICTIONS

To avoid materials that contain chemicals known to be hazardous in newly installed building materials.

1. Restrict Asbestos
2. Restrict Mercury
3. Restrict Lead



X02 INTERIOR HAZARDOUS MATERIALS MANAGEMENT

Manage risks of human exposure to hazardous materials ubiquitously used in past construction practices.

1. Manage Asbestos Hazards
2. Manage Lead Paint Hazards
3. Manage Polychlorinated Biphenyl (PCB) Hazards

ADDITIONAL CHEMICALS

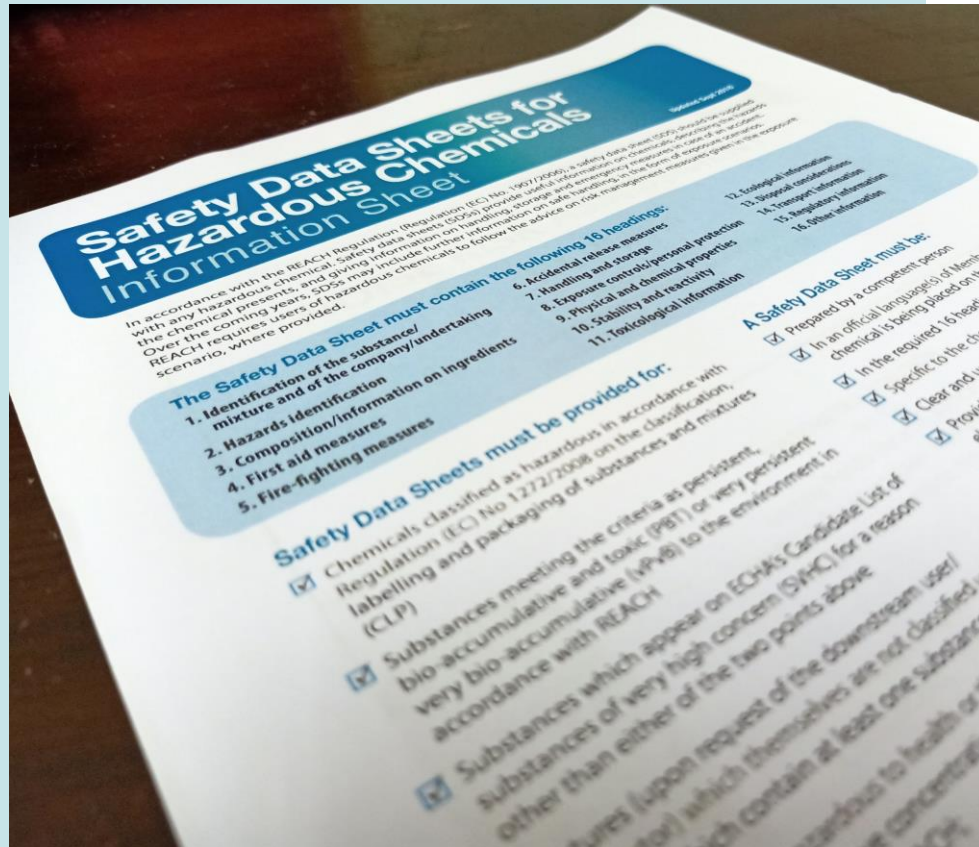


X03 CCA AND LEAD
MANAGEMENT

X06 VOC
RESTRICTIONS

X05 ENHANCED
MATERIAL RESTRICTIONS

X07 MATERIALS TRANSPARENCY



Promote material transparency across building material and product supply chain.

1. Select Products with Disclosed Ingredients
2. Select Products with Enhanced Ingredient Disclosure
3. Select Products with Third-Party Verified Ingredients

X07

MATERIALS TRANSPARENCY

ISSUE

The global supply chain for material production is multi-tiered and complex, and technical and chemical knowledge throughout the supply chain varies greatly. As a result, there is a lack of robust data and knowledge about different chemicals used in construction and furnishing and their effects on human health.³

SOLUTIONS

- Disclosure tools to help differentiate safer ingredients and products
- Promote awareness of and education on material ingredient content through product labeling



X09 WASTE
MANAGEMENT

X10 PEST MANAGEMENT
AND PESTICIDE USE

X11 CLEANING
PROTOCOLS AND
PRODUCTS

X12 β CONTACT
REDUCTION



WE ARE WELL

wellcertified.com



WELL IN PRACTICE

MATERIALS

INTERFACE HQ and SHOWROOM – SYDNEY, AUSTRALIA

Interface Australia HQ and showroom in Sydney



Image credit: Luc Renond





aureo



IMAGE: 25 King Street Brisbane – WELL Certified at the Platinum level, 2020

REFERENCES:

1. U. S. Environmental Protection Agency. Contaminated Land. Report on the Environment (ROE) Web site. <https://www.epa.gov/report-environment>. Published 2017. Accessed February 5th, 2020.
2. Wilson Michael P, Schwarzman Megan R. Toward a New U.S. Chemicals Policy: Rebuilding the Foundation to Advance New Science, Green Chemistry, and Environmental Health. *Environmental Health Perspectives*. 2009;117(8):1202-1209.
3. Suzuki N, Nakaoka H, Nakayama Y, et al. Changes in the concentration of volatile organic compounds and aldehydes in newly constructed houses over time. *International Journal of Environmental Science and Technology*. 2020;17(1):333-342.
4. Boone SA, Gerba CP. Significance of Fomites in the Spread of Respiratory and Enteric Viral Disease. *Applied and Environmental Microbiology*. 2007;73(6):1687.
5. Garza JL, Cavallari JM, Wakai S, et al. Traditional and environmentally preferable cleaning product exposure and health symptoms in custodians. *American Journal of Industrial Medicine*. 2015;58(9):988-995.
6. Wu F, Takaro Tim K. Childhood Asthma and Environmental Interventions. *Environmental Health Perspectives*. 2007;115(6):971-975.
7. Gorman T, Dropkin J, Kamen J, et al. Controlling Health Hazards to Hospital Workers: A Reference Guide. *NEW SOLUTIONS: A Journal of Environmental and Occupational Health Policy*. 2014;23(1_suppl):1-169.
8. Chu DK, Akl EA, Duda S, et al. Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. *The Lancet*. 2020;395(10242):1973-1987.
9. Kutter JS, Spronken MI, Fraaij PL, Fouchier RAM, Herfst S. Transmission routes of respiratory viruses among humans. *Current Opinion in Virology*. 2018;28:142-151.
10. Yan J, Grantham M, Pantelic J, et al. Infectious virus in exhaled breath of symptomatic seasonal influenza cases from a college community. *Proceedings of the National Academy of Sciences*. 2018;115(5):1081.
11. Yang W, Elankumaran S, Marr LC. Relationship between Humidity and Influenza A Viability in Droplets and Implications for Influenza's Seasonality. *PLOS ONE*. 2012;7(10):e46789.
12. Engineering NAo, National Academies of Sciences E, Medicine. *Microbiomes of the Built Environment: A Research Agenda for Indoor Microbiology, Human Health, and Buildings*. Washington, DC: The National Academies Press; 2017.
13. Dai D, Prussin AJ, Marr LC, Vikesland PJ, Edwards MA, Pruden A. Factors Shaping the Human Exposome in the Built Environment: Opportunities for Engineering Control. *Environmental Science & Technology*. 2017;51(14):7759-7774.
14. Beek J, de Graaf M, Al-Hello H, et al. Molecular surveillance of norovirus, 2005–16: an epidemiological analysis of data collected from the NoroNet network. *The Lancet Infectious Diseases*. 2018;18(5):545-553.

INTERNATIONAL WELL BUILDING INSTITUTE, IWBI, WELL BUILDING STANDARD, WELL COMMUNITY STANDARD, WELL CERTIFIED, WELL PORTFOLIO, WELL PORTFOLIO SCORE, WELL AP, THE WELL CONFERENCE, WELL HEALTH-SAFETY RATING, WELL PERFORMANCE, WELL EP, WELL ENTERPRISE, WELL™, and others and their related logos are trademarks or certification marks of the International WELL Building Institute pbc in the United States and other countries.

Although the information contained in this presentation is believed to be reliable and accurate, all materials set forth within are provided without warranties of any kind, either express or implied, including but not limited to warranties of the accuracy or completeness of information or the suitability of the information for any particular purpose. IWBI's WELL offerings and resources related thereto are intended to educate and assist organizations, building stakeholders, real estate owners, tenants, occupants; and neither this presentation and nor any related materials should be considered, or used as a substitute for, quality control, safety analysis, legal compliance, financial or investment advice, comprehensive urban planning, medical advice, diagnosis or treatment.