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ABOUT UNILEVER

EVERYDAY, 2.5 BILLION PEOPLE USE UNILEVER PRODUCTS

By combining our multinational expertise with our deep roots in diverse local cultures, we’re continuing to provide a range of products to suit a wealth of consumers.

Science, technology and product development are central to our plans to keep providing consumers with great brands that improve their lives while having a positive impact on the environment and society.

85% OF THE PEOPLE WHO USE UNILEVER PRODUCTS ARE IN DEVELOPING AND EMERGING MARKETS

EVERY DAY AROUND 90 MILLION HOUSEHOLDS BUY A UNILEVER PRODUCT

WE OPERATE IN >190 COUNTRIES

3 DIVISIONS

FOODS & REFRESHMENT

PERSONAL CARE

HOME CARE

Unilever Safety & Environmental Assurance Centre
Unilever has a dedicated Safety and Environmental Assurance Centre (SEAC) staffed by around 200 people, including scientists recognised externally as leaders in their areas of expertise.

The core purpose of the SEAC team is to assess the safety and environmental sustainability of Unilever’s products so that they are safe for the people who use them and better for the environment.
Unilever invests in a novel long-term research programme to apply modelling and informatics approaches for non-animal safety assessments.

Environmental Safety Laboratory scientists in Bangalore, India, become part of the global SEAC organisation.

SEAC’s Safety Science in the 21st Century website (TT21C.org) goes live, enabling Unilever’s safety research to be shared with the global scientific community.

SEAC celebrates its 25th anniversary with a scientific symposium attended by more than 60 leading scientific partners from across the world.

In the last 10 years SEAC scientists have published more than 550 articles in peer-reviewed journals, some articles have been cited over 200 times in literature.
SEAC - SCIENTISTS

LEADING SAFETY & ENVIRONMENTAL SCIENCES CAPABILITY

SEAC is led by world-class scientists who use leading edge scientific approaches to assess the safety and sustainability of our products. They draw on their broad-technical expertise, complemented by an understanding of product formulations and knowledge of how consumers use our products.

SEAC CAPABILITY
Chemistry, Environmental Safety, Environmental Sustainability, Exposure Science, Informatics, Life-Cycle Impact Assessment, Microbiology, Modelling, Occupational Safety, Process Safety Risk Assessment, Toxicology

FUTURE TALENT
Working with Universities to support the development of future scientists

68% DEGREES OR HIGHER
27% PhDs
3 HONORARY PROFESSORS
20 NATIONALITIES
15 LANGUAGES
>550 PUBLICATIONS SINCE 2005
SEAC - APPLYING SCIENCE

HOW WE BUILD SAFETY AND ENVIRONMENTAL SUSTAINABILITY INTO EVERY PRODUCT INNOVATION

From the initial bright idea for a new product, to making it, to selling it, right through to when the product is disposed of, our scientists are there every step of the way to guide and work with teams across Unilever on safety and environmental sustainability.

We use internationally recognised safety and sustainability approaches that take into account the product’s active technology, its other ingredients, and how it will be used.
SEAC - ADVANCING SCIENCE

NEXT GENERATION RISK AND IMPACT ASSESSMENTS

Our research moves us away from traditional methods and models to applying computational science and new tools, e.g. combining exposure science, modelling and informatics approaches for more detailed and systems-based safety risk and environmental impact assessments.
SEAC - SHARING SCIENCE

ASSURING SAFETY AND SUSTAINABILITY THROUGH SCIENTIFIC EXCELLENCE AND COLLABORATION

As well as conducting our own pioneering scientific research, we also work closely with leading scientific authorities around the world including regulators, government scientists and academic experts. This collaboration ensures we are always using the most up-to-date scientific advances within our safety and environmental sustainability assessments.
OUR APPROACH TO SAFETY SCIENCE

THE SCIENCE-BASED APPROACHES WE USE TO KEEP CONSUMERS AND WORKERS SAFE

EXPOSURE
Unilever’s safety risk assessments are exposure-driven. This means we apply our understanding of exposure to the overall risk assessment, which involves understanding how frequently, in what quantity and how regularly a product is used. This information, along with awareness of the level of each ingredient in the product, allows us to calculate how much of each ingredient a consumer will come into contact with. We also include the possibility of foreseeable unintended use of the product; for example, using shower gel to wash hair.

HAZARD
We look for scientific evidence of any potential health hazards associated with an ingredient. Almost everything causes harm if the level of exposure is high enough. For example: cyanide is a hazardous chemical and it can be released when apple pips are eaten. However, you would need to eat well over 100 apple pips in one go to cause yourself any harm.

RISK
Our risk assessments then make sure that the levels of exposure to all ingredients in our products are safe.
Unilever is committed to ending animal testing wherever we operate. Our long track record in advancing non-animal science means we routinely use a wide range of alternative approaches. SEAC scientists continue to play a leading role in developing further new non-animal approaches for assessing product safety.

We are working with more than 40 other partners across the world to develop new non-animal tools and risk assessment approaches. In doing so, we use cutting-edge research, including computer modelling, exposure science and mechanistic chemistry. We regularly publish and present our research advances and make them available through a unique website, www.TT21C.org.

Learn more about our alternatives to animal testing programme [https://www.unilever.com/sustainable-living/what-matters-to-you/developing-alternative-approaches-to-animal-testing.html].
OUR APPROACH TO SAFETY SCIENCE

THE SCIENCE-BASED APPROACHES WE USE TO PROTECT THE ENVIRONMENT

We use safety risk assessments to determine the risk of any adverse environmental effects arising from the use and disposal of our products. Our safety risk assessments are exposure-driven: that is, since many of our products ultimately go ‘down the drain’ after use, we assess what happens to each of the ingredients once they are disposed of, often after wastewater treatment, and any potential effects. We take into account factors that could influence the amount of ingredient that enters the environment, such as water use in the home, and the connection to and type of wastewater treatment.
OUR APPROACH TO ENVIRONMENTAL SUSTAINABILITY SCIENCE

THE EVOLUTION OF OUR LIFE CYCLE APPROACH

1980s
We started using life cycle assessments for key products, tailoring existing approaches to our business, and developing impact assessment methodology.

1990s
We expanded this capability to explore and publish an Overall Business Impact Assessment that considered economic and environmental impacts.

2000s
We continued to develop our approaches and assessments through the development of our Brand Imprint Tool. This assessed the social, economic and environmental impacts of our brands and was the framework for the environmental pillar of the Unilever Sustainable Living Plan (USLP).

2010s
SEAC scientists are focusing on pioneering methodologies that can inform activities designed to tackle climate change, eliminate deforestation, reduce the impacts of agriculture, preserve natural capital and deliver water, sanitation and hygiene solutions.
OUR APPROACH TO ENVIRONMENTAL SUSTAINABILITY SCIENCE

SCIENCE TO HELP MINIMISE OUR ENVIRONMENTAL FOOTPRINT

Our scientists look for opportunities to minimise the potential environmental impacts of Unilever products and activities.

We focus on predictive science, helping to anticipate the potential future impacts of today’s decisions in relation to product innovation and sourcing of ingredients and raw materials.

We recognise that the Earth’s capacity to provide resources and assimilate waste is limited. For this reason we are exploring ways to integrate these so-called ‘Planetary Boundaries’ into our assessment methodologies.
ADDITIONAL RESOURCES

LEARN MORE ABOUT UNILEVER SEAC

SAFETY AND ENVIRONMENTAL SCIENCES PAGES ON UNILEVER.COM

SAFETY SCIENCE IN THE 21ST CENTURY – TT21C.ORG

SEAC VIDEOS

Unilever Safety & Environmental Assurance Centre