

## DO YOU USE PFAS IN YOUR BUSINESS? THE PFAS GUIDE WILL HELP YOU FIND OUT



Anna Lennquist, Jonatan Kleimark, ZeroPM webinar, 14 September 2023

#### CATALYSING THE MARKET TRANSITION AWAY FROM PM SUBSTANCES



- Task 4.1. Dialogue with industry
- Task 4.2 PFAS guide for downstream chemical using companies
- Task 4.3 Highlighting PM substance alternatives from chemical manufacturers on the ChemSec Marketplace
- Task 4.4 Adding new PM substances to the SIN List





#### TODAY

- ChemSec the essentials
- PFAS the essentials
- What does the market need to transition?
- The PFAS Guide
  - Check your Tech Guide to PFAS in electronics
- How Marketplace and SIN List complements the guide
- Other PFAS resources from ChemSec









- Environmental NGO aiming to reduce the use of hazardous substances
- Cooperates with different stakeholders to drive the change to safer chemicals
- Receives funding from the Swedish Government and various charity funds

#### WHAT WE DO AT CHEMSEC

- Drive the political discussion on hazardous chemicals
- Challenge companies to improve their chemicals management
- Develop online tools to help companies switch to safer chemicals
- Inform investors about risks and opportunities in the chemical industry





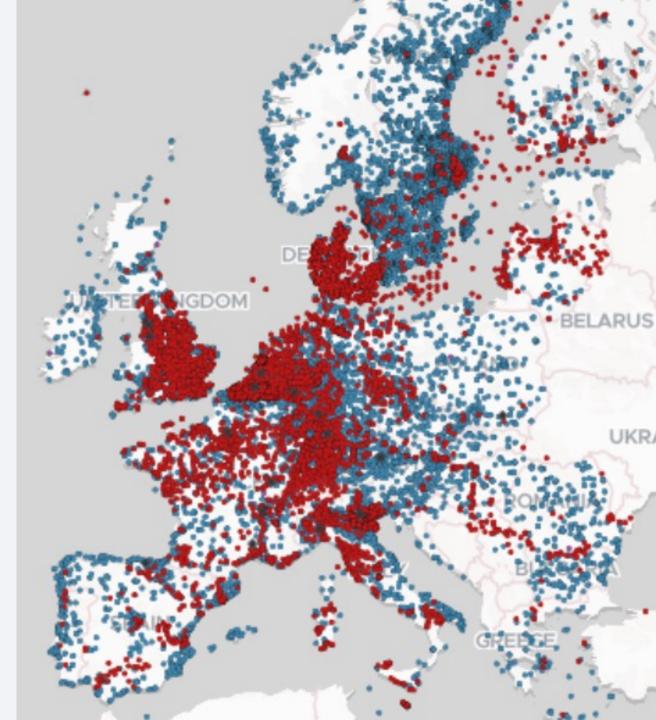
#### **CHEMSEC BUSINESS GROUP**





#### PFAS: REASONS FOR CONCERN

- Widespread use
- Persistency
  - Common property for PFAS
  - Increased levels over time
- Contamination of water, soil, blood
  - 17 000 sites in Europe
  - High concentrations in teenagers





## **PFAS: SOCIAL COSTS**

- PFAS production
  - Revenue: €26 billion
  - Profit: €4 billion
- Huge costs for society
  - €16 trillion
- Unbalanced scale!



Vanguard Group (2.7%) Amundi (1.7%) Norway's Oil Fund (1.7%)

DUBONGYUE

Vanguard Group (1.7%) Dimensional Fund Adv. (1.7%) HuAn Fund Management (1.7%) Temasek Holdings (3.5%) Norway's Oil Fund (3.1%) Vanguard Group (2.7%)

#### Honeywell

Vanguard Group (8.8%) State Street (4.8%) BlackRock (4.4%)

Massachusetts Financial Serv. (5%) Amundi (3.3%) Fidelity M&R (3%)

Vanguard Group (12.3%)

BlackRock (11.4%)

Fidelity M&R (6.6%)

Merck

Nomura (6%) Nikko (2.9%) Daiwa (2.9%)

S SOLVAY

Vanguard Group (1.8%) Janus Henderson (1.6%) Norway's Oil Fund (1.2%)



#### TRANSITIONING THE MARKET IS KEY TO SOLVE THE PFAS CRISIS

Science is clear: PFAS use and production must be limited Regulation is the most efficient measure ...but market changes can be quicker, and global

...and regulatory process rely on market maturity

Derogations from PFAS restriction are based on alternatives

## WHAT IS NEEDED

- Awareness among companies:
- about the problem
- about where and why PFAS is used
- Knowledge:
- functional substitution of PFAS
- availability of alternatives
- Regulation to follow as expected





#### PFAS: CHEMSEC INITIATIVES

- News and and webinars
- PFAS guide
- SIN List
- Marketplace
- PFAS movement
- ChemScore
- Investors initiative





## ChemSec TOOLS FOR PFAS PHASEOUT











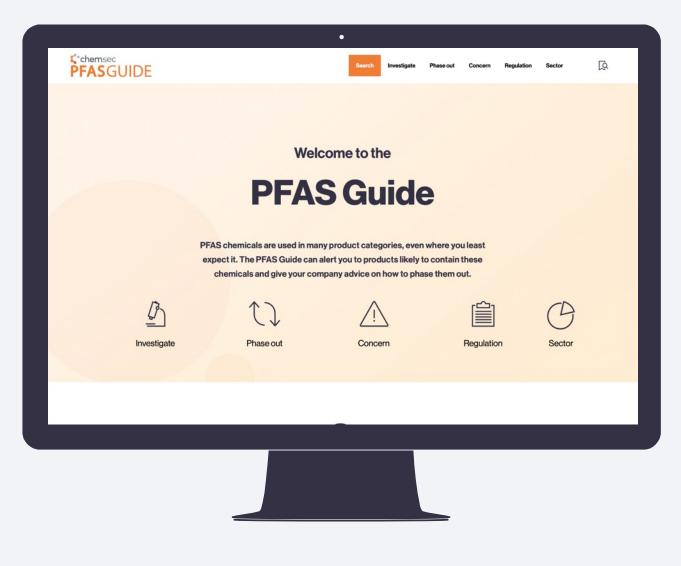
# UNDERSTANDING IF, WHERE AND WHY YOU HAVE PFAS IS A CHALLENGE TO COMPANIES



#### **PFAS GUIDE**

Aims to support companies in understanding if, where and why PFAS is used in their organisation

Thereby facilitating the first step in PFAS phase-outs







This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101036756.

## THE PFAS GUIDE USER

Anyone that has been given the task to "look into PFAS"

- Sustainability manager
- Purchasing manager
- Regulatory affairs manager
- Small-business owner
- Consultant

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## **INFORMATION PART**

- Typical PFAS uses, supply chain communication and chemical analysis
- Substitution as a phase-out method. Find, evaluate and compare alternatives
- What are the problems with PFAS? PFAS and human health
- Regulation in the EU and the US
- Links to sector-specific reports



<u>(</u>)

#### Investigate

This chapter will teach you about typical "red flags" indicating that PFAS could be in a product. You will also find suggestions on how to communicate about PFAS in the supply chain and what to do if you do not get the answers you need from your suppliers, or want to verify them.

#### Phase out

To phase out PFAS you need to find a way to achieve the same functionality without them. The most straightforward approach is to simply replace one chemical with a safer one. But this can be tricky. Other ways include changing materials, technologies or production processes.



#### Concern

PFAS continue to be used on a broad scale despite their adverse health effects, linking them to issues such as cancers and infertility. Since theses "forever chemicals" do not degrade, they are now found all over the planet in our environment and in the blood of every single human being.

#### Regulation

It has taken some time, but regulation is now finally stepping up to address this vast and problematic family of chemicals. A comprehensive PFAS ban is expected in the European Union within the coming years and a range of regulatory actions are in the pipeline in other regions as well.



Many industries use PFAS in some way or another for a variety of functions and purposes. These uses can be hard to find at a first glance. In this part of the guide, we publish reports with information on PFAS use and substitution with relevance for specific industry sectors.



#### Are there PFAS chemicals in your product?

Sector (?)		Use / Product (?)	
Select sector	× ×	Select use / product	~
Material Function			
Textile	× <b>v</b>	Select function	<b>v</b>
Cier al filters <b>Dessible PFAS hotspots</b> Based on your selection			
oparel Textile finishing - dyeing with sulphur dyes Curtains and blinds (Sailing) boat equipment - textiles for maritime applications Golf gloves oustic insulation textiles Consumer apparel and accessories - breathable membranes Technical textiles			
ical textiles - carvas, awnings, tarps, tents, sails, rope noistery cleaner Impregnation spray for textil	etc Personal protection equip		e textiles Textile finishing - dyeing and bleaching
coverings - tablecloths, beddings etc Textile finishing - dye transfer			
		및 Download Excel	C-D Sharelink [Q Remembersearch
Sector	Use/Product	Function	Material
Textile, apparel and upholstery	Professional apparel	Water and oil repellence	Textile
Textile, apparel and upholstery	Textile finishing - dyeing with sulphur dyes	Anti-foaming agent	Textile
Textile, apparel and upholstery	Curtains and blinds	Water and oil repellence	Textile
Textile, apparel and upholstery	(Sailing) boat equipment - textiles	Water and oil repellence	Textile

for maritime applications

Use

Professional a

Non-woven ac Outdoor techr Carpet and up

Textile-based

Read more

30 results

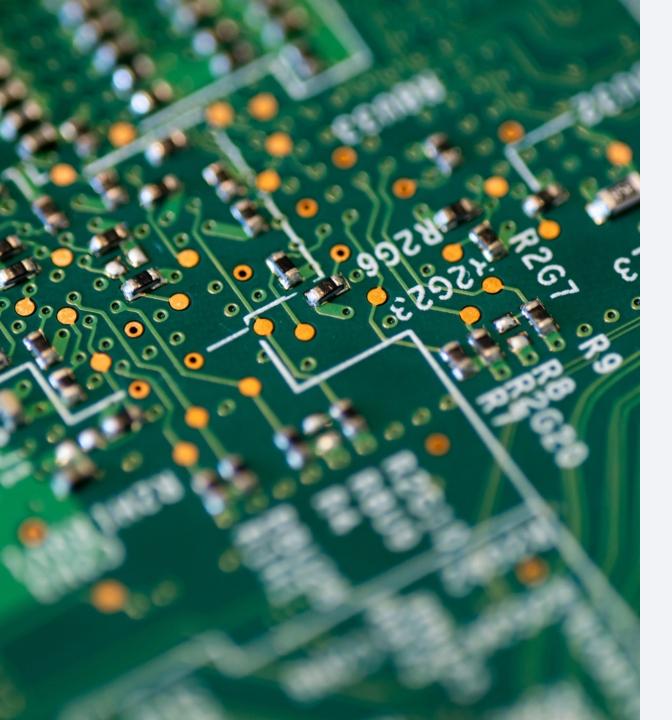
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#### **DATABASE PART**

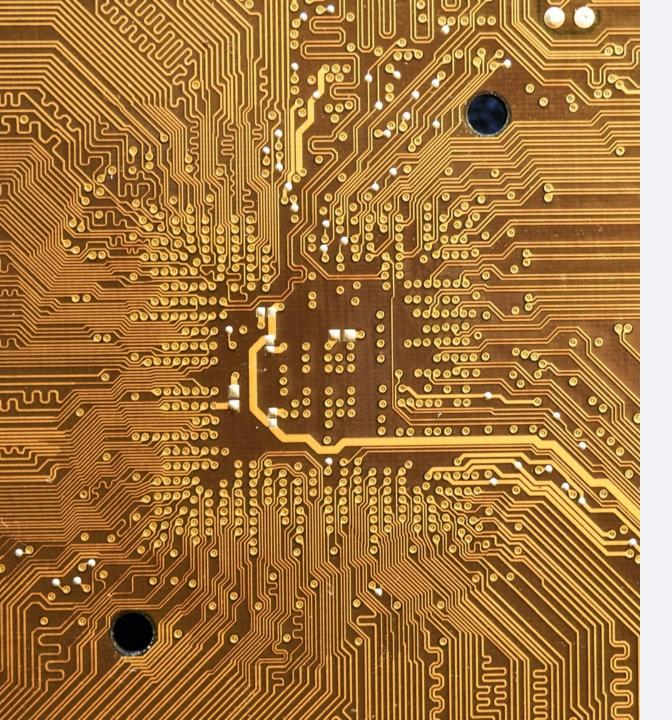
- Incorporates information from scientific publications, reports and information from individual companies
- Links to the SIN List and Marketplace
- Links to reports on alternatives
- Let it be a growing source of information!
- pfasguide@chemsec.org



### **PFAS & ELECTRONICS**

- Large use of PFAS
  - 4,400 tonnes/year in EU
- Electronics widely used in many other sectors of consumer products
- Large projected growth of industry use of PFAS

Important to understand scope and challenge

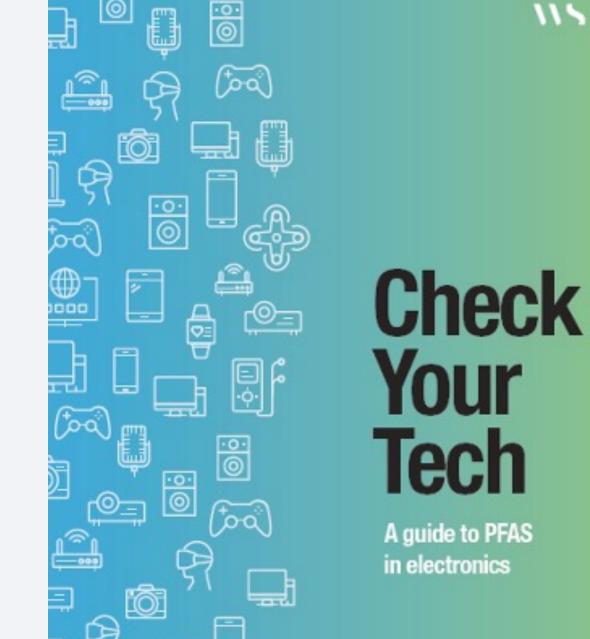


## **AIMS FOR THE REPORT**

- Overview of uses and functions of PFAS within the electronics sector
- Hands-on guide for people with direct responsibility within electronics industry
- Easy-to-access guidance to facilitate the knowledge-building
- Understanding of potential alternatives
- Commissoned by WSP

## **CHECK YOUR TECH**

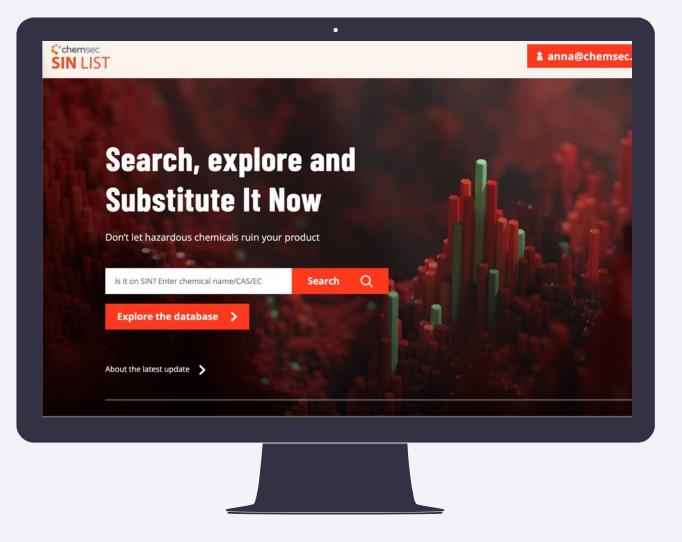
- Desktop research and expert interviews
- Investigates the use of PFAS in electronics around three themes: electronic devices, the manufacturing process and semiconductors
- Summarize 77 identified uses, functions and potential alternatives
- Used by eg HP in supply chain communication
- PDF report + excel sheet
- And info of course also included in the PFAS Guide database





## **THE SIN LIST**

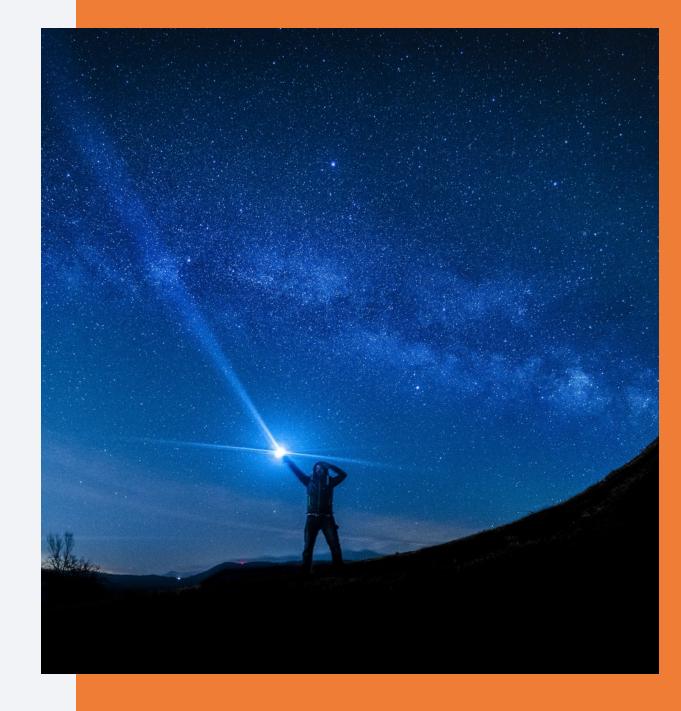
- ChemSec project since 2008
- Lists SVHCs ahead of regulation
- Used by companies, policymakers, financial investors, NGOs
- 40 000 users in 150 countries
- Main updates in 2011 (EDCs), 2014 (EDCs+PBTs), 2019 (PBTs and PMTs) and 2023 (PFAS)





#### NARROWING DOWN THE PFAS UNIVERSE

- OECD 2017: 4,730 substances
- PFAS restriction 10,000 substances
- PubChem Tree: More than 6 million
- SIN List: 416 PFAS (370 new)
- Which substances are most likely used in processes and products?
- Focus on substances registered in the EU and US and manually checking for uses



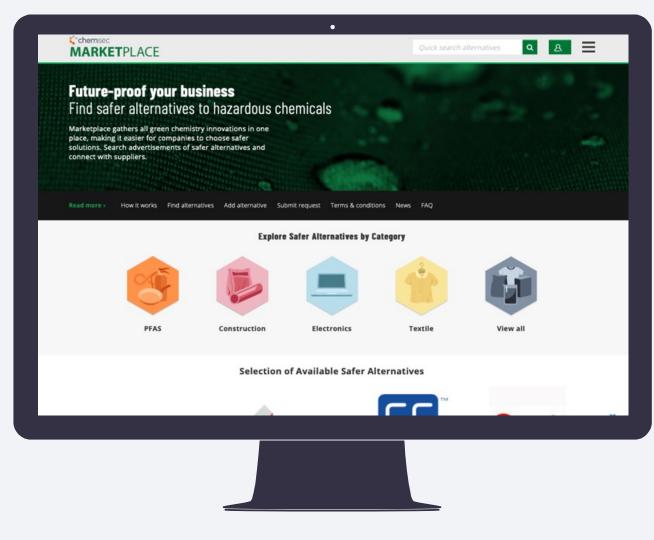


#### CHEMSEC MARKETPLACE

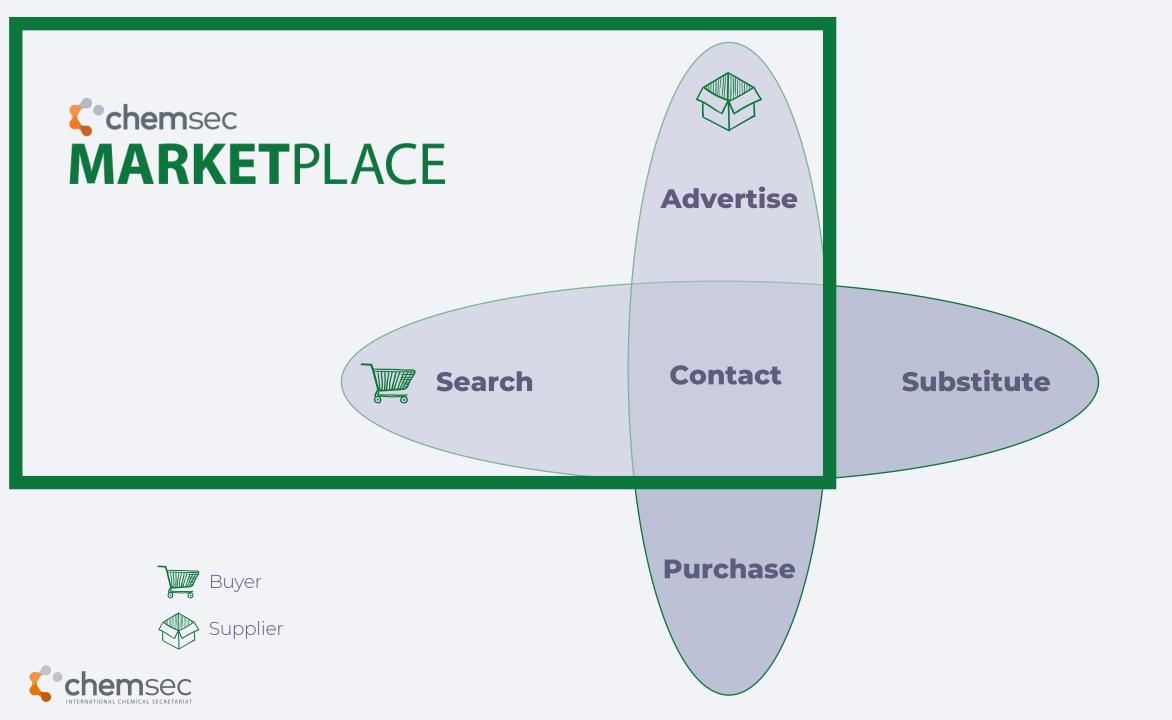
ChemSec Marketplace is a B2B platform to connect providers of safer alternatives with potential buyers

#### Marketplace welcomes:

- Drop-in substitutes
- Technological solutions
- New processes and materials

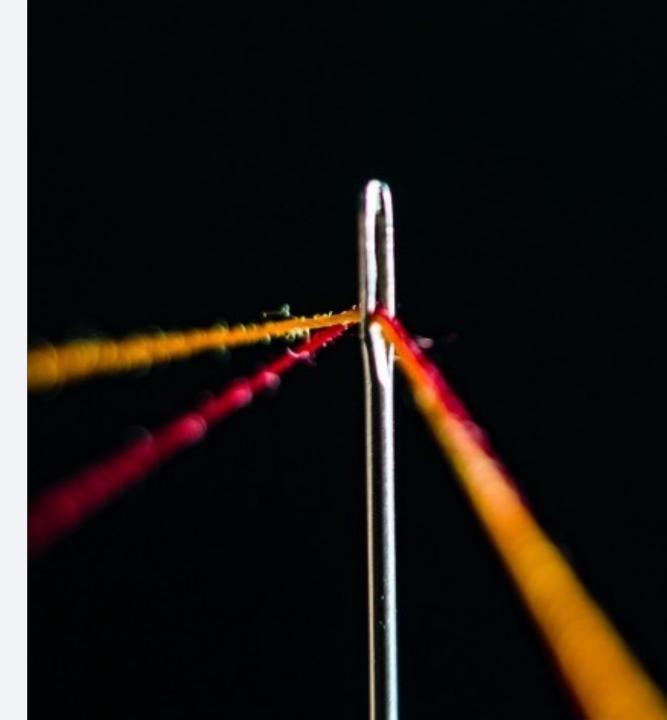






#### MARKETPLACE CRITERIA

- No substances on the REACH Candidate list
- No substances on the SIN List
- No substances with CMR properties
- No substances fulfilling the PBT/vPvB or PMT/vPvM criteria
- No EDCs





#### PFAS ALTERNATIVES ON MARKETPLACE

About 100 alternatives and growing

Mainly alternatives for:

- Durable water repellence for textiles
- Fire fighting foams
- Food contact materials
- ...and a few more

Help us find more alternatives!





## ChemSec TOOLS FOR PFAS PHASEOUT





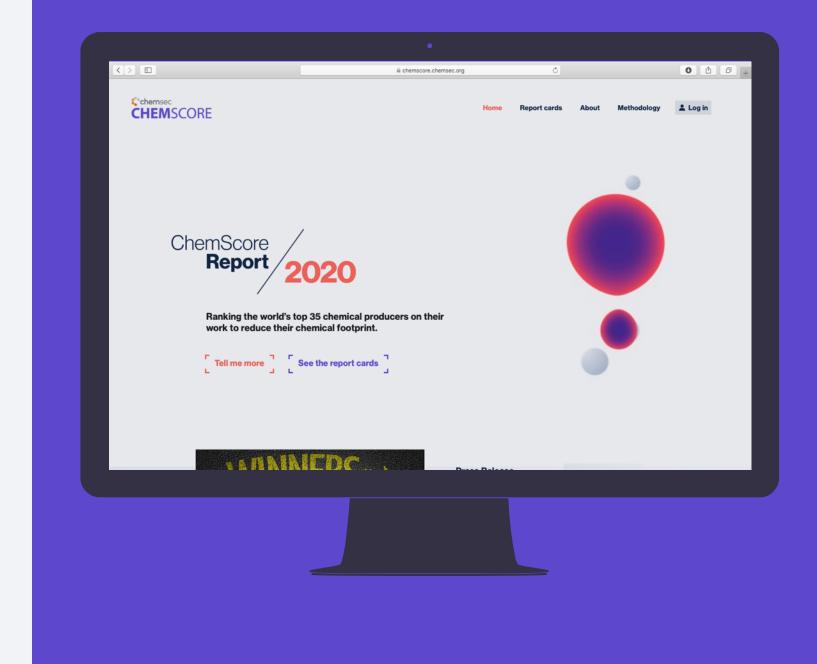




# Chemsec CHEMSCORE

ChemScore ranks the world's largest chemical producers on their efforts to reduce their chemical footprints.

PFAS production in focus.







# NO TO PFAS CHEMSEC'S CORPORATE PFAS MOVEMENT

NO to

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#### THE PFAS MOVEMENT HAS 100+ MEMBERS

By joining the movement, it means that your company:

- Recognizes that PFAS is a major health and environmental problem
- Supports a group ban on all non-essential PFAS uses
- Have the ambition to phase out all non-essential PFAS uses in products and supply chains, alternatively already have phased it out or never used it



#### **PFAS MOVEMENT MEMBERS**







# THANKS FOR LISTENING!

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#### STAY IN TOUCH WITH CHEMSEC

- Website: <u>chemsec.org</u>
- PFAS Guide: <u>pfas.chemsec.org</u>
- How to reply to the public consultation:
  - <u>https://chemsec.org/all-you-need-to-know-about-the-pfas-restriction-consultation/</u>
- LinkedIn: <u>ChemSec</u>
- Twitter: <u>@chemsec</u>
- Instagram: <u>@\_chemsec</u>



