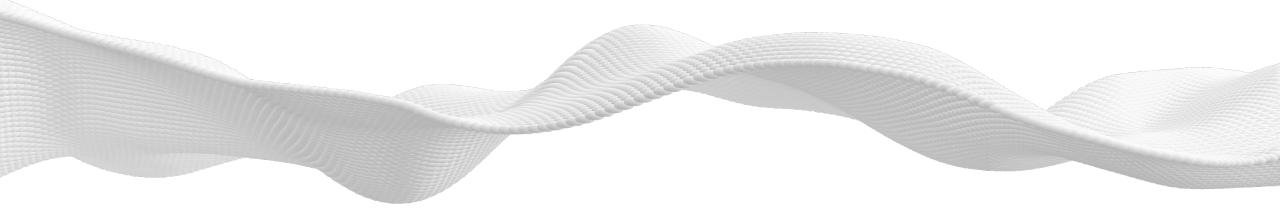
Navigating PFAS Regulations: Understanding Impacts & Obligations





Navigating PFAS Regulations

A Black Diamond

Liliana Frost

Compliance Manager



Liliana has over 7 years of experience in regulatory compliance & quality management. A Chemical Engineer by training, she specializes in global regulations. Liliana leads Black Diamond's PFAS compliance efforts, overseeing data management, materials testing, and sustainability initiatives.

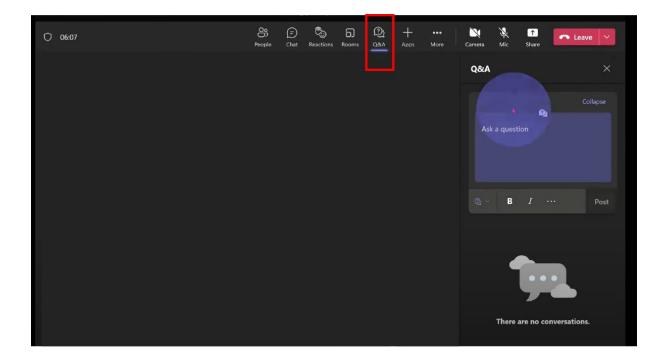
Texbase Joe Walkuski Founder & CEO



Joe Walkuski has extensive experience in the industry as the CEO and founder of Texbase. He brings a profound understanding of the regulatory challenges the industry is facing. Joe has extensive experience in textile innovation, software development, and regulatory compliance.

Put your questions in the Teams Q&A

- During the webinar, feel free to submit your questions using the Q&A panel.
- We'll address as many questions as time allows. If we run out of time we'll follow up with you after the webinar.



What are PFAS?

- PFAS, short for per- and polyfluoroalkyl substances, are chemicals valued for their stain resistance, water repellency, and durability. These qualities make them popular in items like clothing, shoes, rain gear, swimwear, hiking gear, and athletic apparel.
- PFAS are man-made, synthetic organic compounds used for water repellency in textiles, per- or polyfluorinated chemicals, which contain fluorine and are most often referred to by their acronyms: PFCs, PFOAs or PFAS.
- PFCs, PFAS, PFOS, and PFOAs are acronyms used interchangeably in the apparel industry. Despite minor molecular differences, they serve similar functions.

Source: https://echa.europa.eu/-/next-steps-for-pfas-restriction-proposal





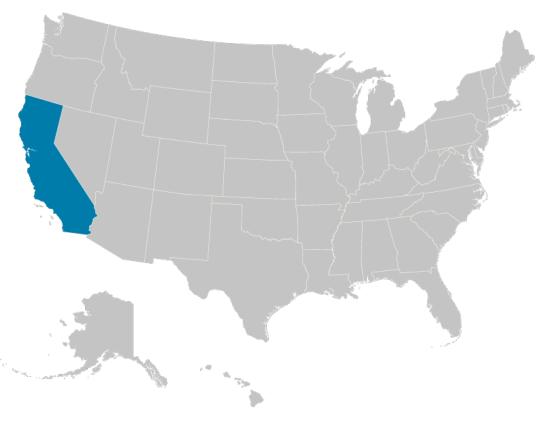


Overview: EPAS Toxic Substance Control Act (TSCA) Section 8(a)(7)

• What is TSCA Section 8(a)(7)?

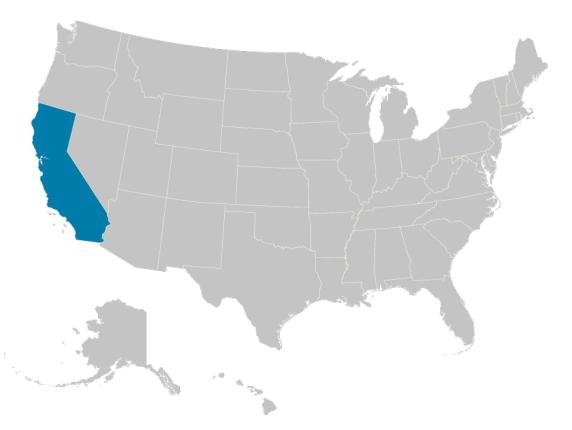
- TSCA (Toxic Substances Control Act) is a federal law that applies to all companies operating within the U.S. that manufacture, process, or import chemical substances regulated by the EPA. The requirements under Section 8(a)(7) will become enforceable from July 11, 2025, when the EPA's reporting window opens.
- Mandates that companies handling PFAS (Per- and Polyfluoroalkyl Substances) report detailed information to the EPA.
- Applies to manufacturers, importers, and processors of PFAS between 2011-2024.
- Who Needs to Report?
 - Any entity that manufactured, imported, or processed PFAS since January 1, 2011.
 - Includes a wide range of industries: textiles, automotive, electronics, and more.
- Reminder: EPA announced on September 4th that they are pushing back the reporting timeline for <u>TSCA Section 8(a)(7)</u> – the new timeline is July 2025-January 2026.

- California CA AB 1817:
 - Focus: AB 1817 bans the use of intentionally added PFAS in certain products.
 - Scope: It specifically targets textiles and other consumer goods like cookware and juvenile products.
 - Key Date: The ban on products containing intentionally added PFAS goes into effect on January 1, 2025.
 - Purpose: To reduce the public's exposure to PFAS chemicals, which are known to be harmful and persist in the environment.



• California - CA AB 347:

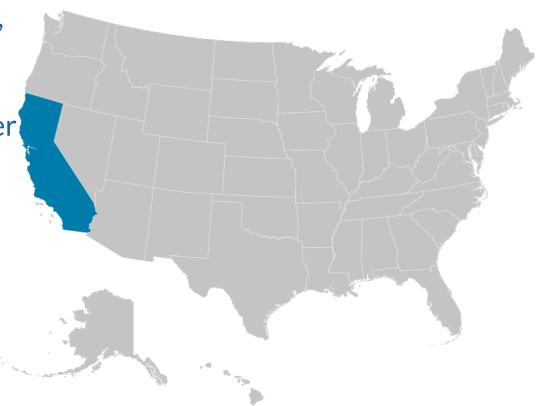
- Focus: AB 347 gives the Department of Toxic Substances Control (DTSC) the responsibility to oversee and enforce PFAS bans, specifically focusing on PFAS that fall outside other regulatory categories (these are called "orphan" PFAS bans).
- Scope: It does not create new bans but ensures better regulatory oversight of existing PFAS bans (like those in AB 1817) and allows the DTSC to handle the enforcement & implementation.
- Key Date: January 1, 2029, the DTSC must have adopted regulations for enforcing these PFAS bans.
- Purpose: To streamline the regulation and oversight of PFAS bans by assigning regulatory authority to the DTSC.



AB 347: https://leginfo.legislature.ca.gov/faces/billHistoryClient.xhtml?bill_id=202320240AB347 AB 1817: <u>https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB1817</u> DTSC PFAS Factsheet: https://dtsc.ca.gov/wp-content/uploads/sites/31/2023/09/PFAS-Factsheet.pdf

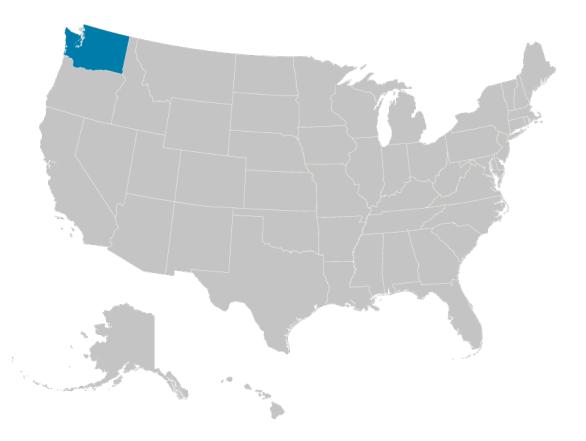
Overview: California Prop 65

- PFOA/PFOS Notices: Continue to see notices for items labeled as rain/water resistant (e.g., umbrellas, jackets).
- BPA Notice: A new notice in September for poly/spandex blend leggings following a larger settlement
 - (https://oag.ca.gov/prop65/60-Day-Notice-2024-03885).
- BPS Listing: Takes effect on December 29, 2024.
 - Challenging for leather and nylon/polyamide products.



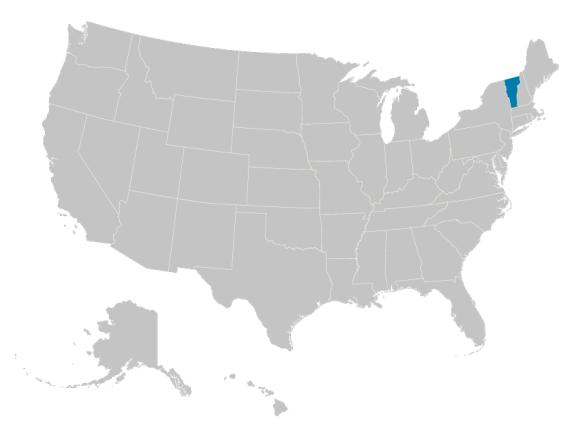
Washington:

- Draft Language proposes a ban on intentionally added PFAS in apparel (excluding footwear) by January 1, 2027.
- New Reporting Requirements for intentionally added PFAS in:
 - Firefighting PPE
 - Apparel for Extreme/Extended Use
 - Recreational and Travel Gear



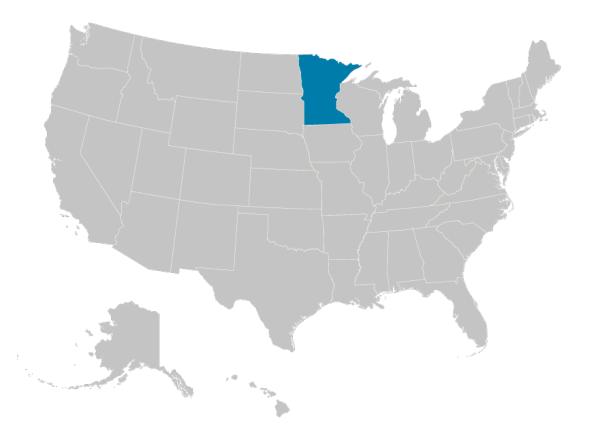
Vermont:

- Draft PFAS Report released for public comment.
- Key Recommendation: Exemption for products containing 50% or more recycled content from the legislation.
 - Draft Language: https://legislature.vermont.gov /Documents/2024/Docs/ACTS /ACT131/ACT131%20As%20E nacted.pdf



Minnesota:

- Minnesota Pollution Control Agency (MPCA) to begin beta testing its PFAS reporting system (required under Amara's Law) in Fall 2025.
- The system is expected to resemble the Interstate Chemicals Clearinghouse platform.



New York: NY ECL Section 37-0121

- Focus: NY ECL Section 37-0121 restricts the use of intentionally added PFAS in apparel and outdoor apparel for severe wet conditions.
- Scope: The regulation applies to general apparel items and outdoor apparel designed for severe wet conditions, such as extended-use products meant to withstand prolonged rain or immersion.
- Key Dates:
- January 1, 2025: Ban on products containing intentionally added PFAS in general apparel.
- January 1, 2028: Ban on products with intentionally added PFAS in outdoor apparel for severe wet conditions.



"Persons selling these items are encouraged to obtain compliance certifications from their manufacturer, as defined in ECL 37-0121, to demonstrate that their apparel or outdoor apparel for severe wet conditions is compliant with ECL 37-0121. The compliance certification must state that the specified apparel or outdoor apparel for severe wet conditions complies with ECL 37-0121 and must be signed by an authorized official of the manufacturing company."

This emphasizes that while sellers are not required to submit these certifications directly to the DEC, they must keep them accessible for verification upon request.

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Sources:

Location	Regulation / Proposal / Resource	Source
California	Prop 65	https://www.p65warnings.ca.gov/fact-sheets/pfoa-perfluorooctanoic-acid
California	AB 347	https://leginfo.legislature.ca.gov/faces/billHistoryClient.xhtml?bill_id=202320240AB347
California	AB 1817	https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB1817
California	DTSC PFAS Factsheet	https://dtsc.ca.gov/wp-content/uploads/sites/31/2023/09/PFAS-Factsheet.pdf
California	TSCA Section 8(a)(7)	https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/tsca-section-8a7-reporting-and- recordkeeping
Washington	Draft Reporting Requirements	https://ecology.wa.gov/getattachment/780ffc62-58ce-4856-992f-47055234ecd9/SPWA_C1- 5_PrelimDraftRule_2024-09.pdf
Vermont	Draft Proposal	https://legislature.vermont.gov/Documents/2024/Docs/ACTS/ACT131/ACT131%20As%20Enacted.pdf
Minnesota	MPCA proposal	https://www.mondaq.com/unitedstates/clean-air-pollution/1513624/minnesota-aims-for-fall-2025-release- of-pfas-reporting-system
New York	PFAS In Apparel Law	https://dec.ny.gov/environmental-protection/help-for-businesses/pfas-in-apparel-law
Europe	(ECHA) PFAS Updates	https://echa.europa.eu/documents/10162/2082415/2023-02-07_pfas+media+briefing_en.pdf/1661579d- 353a-2fb0-1062-38fc3eb4bd78?t=1675849038730

International PFAS Regulations

- European Union REACH:
 - REACH PFAS Restriction Proposal: This proposal *aims* to restrict all PFAS in the EU, covering various applications like textiles, firefighting foams, and electronics.
 - The restriction proposal was submitted in February 2023, and the next steps include ongoing consultation and decision processes, with the restriction expected to come into force around 2026/2027.
 - Latest Update: In September 2024, the EU discussed further steps in regulating specific PFAS under REACH.
 - Source: European Chemicals Agency (ECHA) PFAS Updates: https://echa.europa.eu/documents/10162/2082415/2023-02-07_pfas+media+briefing_en.pdf/1661579d-353a-2fb0-1062-38fc3eb4bd78?t=1675849038730



Image Source: https://echa.europa.eu/documents/10162/2082415/2023-02-07_pfas+media+briefing_en.pdf/1661579d-353a-2fb0-1062-38fc3eb4bd78?t=1675849038730

Real-World Challenges:

- Now, let's hear from our guest speaker Liliana about her experience managing PFAS compliance in outdoor apparel/equipment and how they set up their compliance program.
 - What did this process look like and what were the biggest challenges for your team?
- How have the recent legislative changes impacted your approach to PFAS compliance, particularly regarding packaging requirements or other specific operational areas?

Audience Question:

We are not a huge user of DWR finishes, however, we do have a handful of fabrics that use CO. As we have created fabric specification through Texbase that require testing to be completed, I am interested to learn if others have better practices and if Texbase has other means to monitor this and other chemicals that I am not utilizing.



Texbase Tools for Managing PFAS Compliance

Materials and Testing: Confirms safe replacements.

eSign Documentation: Secures vendor legal agreements with PFAS limits.

Ensure Production Compliance: Using Lab Test Data Importer (LTDI) to capture lot-to-lot data validation.

Data Management & Reporting: From adoption to automated certifications.



Fabric Library

- Comprehensive textile database.
- Define test requirements. Capture test data.
- Track certifications.
- Data entered by mills via Material Connect

Summa

* Vendor:	ABC Textiles
Secondary Vendor:	
* Vendor Item:	Crayon
Alternate Name/Number:	Crayon
Greige Vendor:	
Finish Vendor:	
* Structure:	Woven
* Construction:	Plain
Sub-Construction:	Dobby
Coated:	0
Swatch Location:	
ERP Number:	
Lamination:	0
Bonding:	
Membrane:	
Passes Rainwear:	0
Harmonized Tariff Code:	

Information			
Vendor Contact:	John Smith	~	
Fabric Face:		~	
Fabric Status:	Adopted	~	
Dye Type:	Direct	~	
Dye Method:	Jet	~	
	This is a stretch woven for	or bottoms that	is sanded and treated for anti-static.
Description:			
	Characters Remaining: 5	515	
	Finish	ed Fabric Det	ails

	Finish	led	Fabric Details		
Cuttable Width (in):	60.00		(cm):	152.40)
Weight (oz/lin yd):			(g/lin m):		
Weight (oz/yd2):	4.80		(g/m2):		
Thickness (in):	0.00		(mm):	0.00	
Density (U.S.):	0 X	0	(metric):	0 x	0
	Warp	Weft			

RSL Specifications

		S	pecification Detai	ls					
No symbols, text, or pun	octuation may be used in	the Target Value fie	lds if auto-evaluatior	n is to be us	ed, only positive or	negative whole n	umbers or decimals.		
Test Standard # - Description (Units)	Selected Value	Target Value	Precision		Min	Max	Comment	Require In Test	Û
EN ISO 11885 (2009) - Antimony (Sb) (ppm)			T	₽»		260	for 100% pes, 130 ppm for 5		
EN ISO 17294-2 - Arsenic (As) (ppm)			•	₽»		1			
EN ISO 17294-2 - Cadmium (Cd) (ppm)			•	₽»		1			
EN ISO 17294-2 - Chromium (Cr) (mg/kg)			•	₽»		100	100 mg/kg for PA/blends an		
GC/MS - Ethyl acrylate (ppm)			•	₽»		10			
JIS 1041 - Formaldehyde Kids 4-14 (ppm)			•	₽»		13	for babies, 20ppm adults		
EN ISO 17294-2 - Lead (Pb) (ppm)			•	₽»		40			
EN ISO 17294-2 - Mercury (Hg) (ppm)			•	₽»		0.5			
FprCEN/TS 15968 - PFOA (ug/m2)			•	₽»		1			
FprCEN/TS 15968 - PFOS (ug/m2)			•	₽»		1			
GC-MS - Phthalates (ppm)			•	⊞ ≫		500	confirmation with LC-MS		

Material Specifications & Sustainability Claims

Vendor Item: Spec is For: Spec is Final: Content:	DemoGear False		ycled	Sp	Typ Seaso	e: Fabri n: 2010 h: Brush			
Test		Test Standard	Target	Units	Min	Max	Comment		Req. for Testing
Colorfastness to Wash Nash	n, Change, 2A	AATCC-61- 1989	3.5	visual	3	5			
Colorfastness to Wash Nash	n, Stain, 2A	AATCC-81- 1989	3.5	visual	3	5			\checkmark
Fabric Count, Warp		ASTM D- 3775	25	Wales	23	27			
Stretch, Loose Fit, Len	ngth	ASTM-D- 2594-1987	6	%	5	10			
Stretch, Loose Fit, Wid	ith	ASTM-D- 2594-1987	12	%	10	15			
Fear Strength, Fill		ASTM-D- 1424-83	175	lbf	160				
Fear Strength, Warp		ASTM-D- 1424-83	175	lbf	160				\checkmark
Veight, g		ASTM D3776	135	g/m2	130	139	+/- 3%		\checkmark
Nidth		Visual	60	cm	58	62	+/- 3%		\checkmark
			С	ertificatio	ons				
Name		Number		Date Ap	proved	Арр	roved By	Date	Expired
BlueSign Certified		BLU-20108		02/04/20	13	Lan	ce C	02/04	/2014
Note:									

- Communicates clearly defined testing requirements and all other pertinent material attributes.
- Dynamic system that eliminates Excel templates and clearly communicates expectations that are specific to a material and its end use requirements.
- Specifications are electronically signed by both you and the supplier to form the foundation of production quality control and sustainability claims.
- Specs are used to drive the testing that is performed • and provides the basis for Auto-Evaluation of testing data for pass/fail analysis.

Ongoing PFAS Tracking & Testing

Keeping track of PFAS levels in textiles and reporting compliance is an ongoing challenge for companies, especially as regulations continue to change.

- How do you manage the ongoing tracking and reporting requirements for PFAS?
- What challenges have you encountered in testing and verifying materials for PFAS and how have you addressed them?

TEXBASE TESTING

ONE LOCATION FOR ALL YOUR TEST DATA

- Performance
- Chemical
- Regulatory
- Production Quality Control
- Automatic Calculations
- Automatic Evaluation of Results
- Lab Test Data Importer
- Standard or Custom Test Methodologies
 & Data Schema
- Centralized Data Collection and Analysis

Texbase	Go To SC	M Materials Product Co	olor Inventory Suppor	i.							Sign ()ut 🕩
earch View	Report											
Search Lab Tes	ts - View Search R	tesults										
	Vendor	Vendor Item	Reference #	Inv. Control #	Status	Submit Type	Location	Eval	Color	Submit PO		
◎ ⊘⊜⊵⊵	ABC Textiles	A New Fabric 1 🔀	LTREF-303	24760			Bozeman	•				Û
• @ •	ABC Textiles	A New Fabric 1 🔀	LTREF-280	22665	Rejected		Bozeman	•				Û
◎ ໔‡≣⊵	ABC Textiles	A New Fabric 1 🔀	LTREF-275	22053		Benchmark	Bozeman		Red			Û
• 70=2	ABC Textiles	A New Fabric 1 🔀	LT - 1081	81706			Bozeman	٠				Û
• 🖉 😳 🔳 🖄	ABC Textiles	A New Fabric 1 🔀	LTRef-247	18760	Rejected		Bozeman					Û
• 🖉 🛊 🖪 🔯	ABC Textiles	A New Fabric 1 🔀	test A 11-16-11	58237	Rejected	Benchmark	Bozeman	•				Û
• 🖉 🛊 🖪 🔯	ABC Textiles	A New Fabric 1 🔀	TXB Test - 95	58840		Benchmark	Bozeman					Û
● ໔⇔≣⊵	ABC Textiles	A New Fabric 1 🔀	Dave	90740			Bozeman					Û
• 700	ABC Textiles	A New Fabric 1 🔀	LT - 1137	86909		Benchmark	Bozeman	٠				Û
◎ ⊘⊜≣⊵	ABC Textiles	A New Fabric 1 🔀	LT - 1138	86910		Benchmark	Bozeman	•				Û
◎ ໔‡≣⊵	ABC Textiles	AA Jersey 🔀	LT - 1436	156209	Rejected	Benchmark	Hong Kong					Û
• @ • • • •	ABC Textiles	abc 778 🔁	TXB Test - 94	58781			Bozeman					Û
◎ ໔‡≣⊵	ABC Textiles	abc 778 🔀	LT II - 199	71510			Bozeman	•				Û
• 🖉 😳 🔳 🔯	ABC Textiles	abc 778 🎦	test I 7-26-12	70536			Bozeman	•				Û
• 🕜 🔳 🖉	ABC Textiles	abc 778 🔀	test 5-22-12	67538		Benchmark	Bozeman					Û



Finished Product

- ✤ A library of finished products produced by brands and retailers.
- ✤ Aggregates certified fabrics and yarns.
- Tracks BOM usage and yields.
- Captures Projected Unit Volume.
- Tracks test reports.
- Manages certified products.

	Proje	Manufacturer: DemoTex Target Cost: cted Unit Volume Sales: Save Supply	v V Chain	
		Product Line	Item	
	Туре	Vendor	Item	
			Button	
Ċ	Component	Ecot	Button	
	Component Fabric	Ecot DemoTex	Esquel Poplin 80x80	
			Esquel Poplin 80x80	
		DemoTex	Esquel Poplin 80x80	
ľ		DemoTex Esquel Poplin 8	Esquel Poplin 80x80	

Texbase Solutions for PFAS Compliance

- Data management tools
- Materials and testing for safe replacements
- E-Sign documentation and legal agreements
- Ensuring Production Compliance
- Using Lab Test Data Importer (LTDI) for validation
- Automation from adoption to automated certifications

Audience Question: Topic PFAS Testing

• We use a fluorine-containing catalyst in our manufacturing process, which has led to high total fluorine levels in our products. Although our specific PFAS tests showed no detection, I'm concerned about the regulatory limits on total fluorine (50 ppm). Is total fluorine itself hazardous, or is it just a cheaper, indirect way to test for PFAS? Should we be worried about customers testing our materials and misunderstanding the results?

Audience Question: Topic PFAS Testing

- Total fluorine as a surrogate vs direct PFAS testing:
 As mentioned, total fluorine testing is used as a cost-effective, indirect method to screen for potential PFAS presence. It does not differentiate between harmful PFAS and non-PFAS fluorine sources.
 - Montrose Environmental Group: <u>https://montrose-env.com/blog/a-proxy-test-for-total-pfas-organofluorine-analysis-what-they-tell-you-and-what-they-dont/</u>

Health concerns with total fluorine:

- The health concerns relate primarily to specific PFAS compounds, not total fluorine itself. No specific PFAS were detected in your product, indicating the fluorine is likely from the catalyst.
 - Éurofins Sustainability Services: https://sustainabilityservices.eurofins.com/services/pfas-totalorganic-fluorine-testing/

Compliance with CA AB 1817:

Compliance is based on total fluorine limits (e.g., 50 ppm by CA AB 1817). Even non-PFAS fluorine may count toward the limit, so regulatory guidance may be needed to clarify the source of fluorine. BizNGO PFAS Testing Guide:

https://www.bizngo.org/images/ee_images/uploads/resources/CFE_PFAS_Testing_FactSheet_Final.pdf

- Total fluorine testing (88.5 ppm) vs PFAS (none detected):
 The 88.5 ppm of total fluorine likely comes from the fluorine-containing catalyst, as no specific PFAS compounds were detected in direct testing.
 - Agilent PFAS Testing Information: https://www.agilent.com/en/solutions/materials-testing-research/semiconductors-electronics-testing/ehs-compliance

Tools for Success

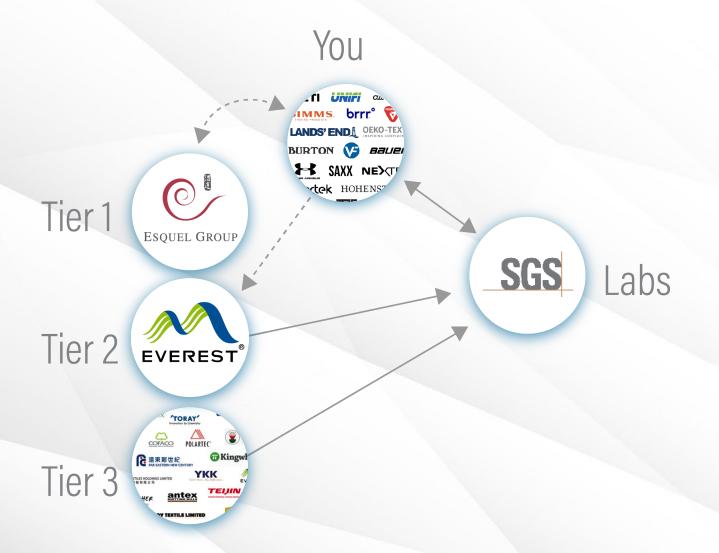
- Are there any lessons learned from your experience with PFAS compliance that you think would be valuable for businesses just starting their compliance journey?
- What tools or systems have proven most useful for managing PFAS data and ensuring accuracy in your compliance processes?

QUESTIONS?



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Multi-Tiered Supply Chain Collaboration



The Texbase solution solves the problem of collecting data across your supply chains by providing one central location to store your data no matter where in the supply chain it originates.

Texbase Connect
Documents
Materials
Specifications
Testing
Compliance