



Connectivity & Products


Juvenile Products: Chemical Safety for the EU and North American Markets

Juvenile Products Safety Forum | HingWo Tsang | October 25, 2022




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Speaker



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Agenda

- European Union
 - General Product Safety Directive (GPSD)
 - Other Applicable Legislation:
 - REACH, Food Contact Materials and Articles
 - Recast of Persistent Organic Pollutants (POP Recast)
- North America
 - Canada Consumer Product Safety Act (CCPSA)
 - US Federal, State/Local Laws (Prop 65, Reporting Rules for Children's Products, BPA, Flame Retardants and PFAS)
 - Composite Wood Products
- Q&A

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Juvenile Products: Chemical Requirements for the EU



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General Product Safety Directive (GPSD, Directive 2001/95/EC)


- To ensure a high level of product safety throughout the EU for consumer products that are not covered by specific sector legislation
- Product is considered safe if it meets all statutory safety requirements under European or national law
- Several EU standards for juvenile products are cited in the Official Journal of the EU (OJEU) in support of the GPSD
 - If there are no regulations or EU standards cited in the OJEU, a product's compliance is determined according to other documents such as European standards, national or international standards, Commission recommendations, or codes of practice



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Standards in Support of GPSD

European Standards for Products Drafted in Support of GPSD (per Annex I)			
Entry No	Decision (EU) 2022/1401 amending Annex I to Decision (EU) 2019/1698	Decision (EU) 2019/1698	Decision (EU) 2019/1698
1a	EN 716-1:2017+AC:2019 'Furniture – Children's cots and folding cots for domestic use – Part 1: Safety requirements'	---	---
11	EN 1130:2019 'Children's furniture – Cribs – Safety requirements and test methods'	EN 1130-1:1996	---
12a	EN 1130:2019/AC:2020	---	---
12a	EN 1272:2017 'Childcare articles – Table mounted chairs – Safety requirements and test methods'	---	---
13a	EN 1400:2019+A2:2019 'Child use and care articles – Soothers for babies and young children – Safety requirements and test methods'	---	---
14	EN 1466:2014 'Child use and care articles – Carry cots and stands – Safety requirements and test methods'	EN 1466:2014	---
48a	EN 16120:2012+A2:2016 'Child use and care articles – Chair mounted seat'	---	---
Effective Date	16 August 2022	Repealed	---



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REACH Annex XVII (1/3)

Representative Restricted Substances/Scope under Annex XVII of REACH			
Entry No	Substance	Scope	Requirement
20	Organotin Compounds (as tin)	Articles	≤ 0.1% (tri-substituted such as TBT and TPT)
		Articles and mixtures	≤ 0.1% dibutyltin (DBT)
		Certain articles eg childcare articles	≤ 0.1% dioctyltin (DOT)
23	Cadmium	Certain synthetic polymers (plastics)	≤ 100 mg/kg
		Paint on painted articles	≤ 1,000 mg/kg
43	Azo dyes	Textiles and leather which may come into direct and prolonged contact with the skin	≤ 30 mg/kg each listed aromatic amine
47	Chromium (VI)	Leather articles coming into contact with the skin	≤ 3 mg/kg
50	8 Polycyclic aromatic hydrocarbons (PAHs)	Toys and childcare articles (rubber or plastic components in direct and prolonged or short-term repetitive contact with the human skin or oral cavity, under normal or reasonably conditions of use)	≤ 0.5 mg/kg each PAH

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REACH Annex XVII (2/3)

Representative Restricted Substances/Scope under Annex XVII of REACH			
Entry No.	Substance	Scope	Requirement
51	Phthalates (BBP, DBP, DEHP and DIBP)	Plasticized materials in toys and childcare articles* as well as other articles	< 0.1% (individually and in combination)
52	Phthalates (DIDP, DINP and DNOP)	Plasticized materials in toys and childcare articles* which can be placed in the mouth	≤ 0.1% (sum)
63	Lead	Articles supplied to the general public if these articles or their accessible parts may be placed in the mouth by children during normal or reasonably foreseeable use ²	≤ 0.05%, otherwise ≤ 0.05 µg/cm ² /h (equivalent to 0.05 µg/g/h)

*Childcare articles means products intended to facilitate sleep, relaxation, hygiene, the feeding of children or sucking on the part of children
²Examples of childcare articles that are considered to fall under the scope:
 - Articles which are used for the hygienic care of children (articles for the bath such as bathtubs, bathtub mats, hairbrushes, bath thermometers or nail cutters)
 - Part of baby carriages (upper surface of side arms, uppermost part of sides and straps and front edge of the tray) and child car seats
 - Changing table pillows (edges)
 - Parts of pushchairs (surfaces of bumper bar, seat sides and braces, straps or belts)

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REACH Annex XVII (3/3)

Representative Restricted Substances/Scope under Annex XVII of REACH			
Entry No.	Substance	Scope	Requirement
68	C ₂ -C ₁₄ Perfluorocarboxylic acids and their salts (C ₂ -C ₁₄ PFCAs and their salts)	- Substances on their own	- Prohibited
		- As a constituent of another substance	- < 25 ppb (sum of C ₂ -C ₁₄ PFCAs and their salts)
		- Mixtures	- < 260 ppb (sum of C ₂ -C ₁₄ PFCA-related substances)
	C ₂ -C ₁₄ PFCA-related substances and their salts		(effective 25 February 2023)

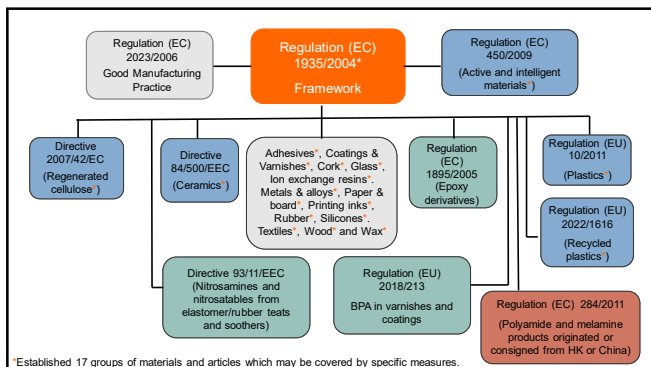
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REACH – Candidate List SVHC in Articles


Substance Category	Obligation	Effective Date
Substances in articles (include packaging articles)	Article 33 of REACH 'Communication in the Supply Chain' If requested by consumers (general public), suppliers of an article containing > 0.1% of an SVHC are obliged to provide sufficient information to allow the safe use of the article within 45 days. Minimum information to be provided is the name of SVHC	Date of inclusion
	Article 7(2) of REACH 'Notification' Suppliers of an article containing an SVHC are obliged to notify the European Chemicals Agency (ECHA) if both conditions are met: - SVHC is more than 0.1% and - Total quantity of SVHC in (all) articles is more than 1 tonne per producer or importer per year	Within 6 months of inclusion

Note – suppliers of an article containing more than 0.1% of a Candidate List SVHC are also obliged to report to the Substances of Concern in articles as such, or in complex objects (Products) database (SCIP database, Waste Framework Directive, WFD)

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Persistent Organic Pollutants (POP)

- Stockholm Convention
 - Global Treaty to protect human health and the environment on POP
- European Union
 - Regulation (EU) 2019/1021 (POP Recast)
 - Prohibits more than 25 POP chemicals but some are allowed to be used under strict conditions eg
 - < 0.15% short chain chlorinated paraffins (SCCPs) in articles
 - ≤ 0.025 mg/kg PFOA and its salts and ≤ 1 mg/kg PFOA-related substances
 - ≤ 5 mg/kg pentachlorophenol (PCP) in mixtures and articles

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Juvenile Products:
Chemical Requirements
for North America

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Canada Consumer Product Safety Act (CCPSA, 1/4)

Citation	Requirement
Consumer Products Containing Lead Regulations (CPCLR, SOR 2018-83) Scope covers five categories of product, including • Products whose primary purpose is to facilitate the relaxation, sleep, hygiene, carrying or transportation of a child under 4 years of age eg i. Bassinets, baby carriers and baby swings ii. Car seats, changing tables iii. Childcare articles such as bath accessories, bibs, pacifiers and teethers iv. Cradles, cribs, highchairs and strollers	≤ 90 mg/kg lead content for accessible materials, otherwise ≤ 90 mg/kg releasable lead when tested in accordance with Good Laboratory Practices (GLP) if the use of lead is necessary and there is no alternative part containing less lead available
Phthalates Regulations (SOR 2010-298)	≤ 0.1% each of DEHP, DBP and BBP (vinyl materials in toys and childcare articles) ≤ 0.1% each of DIDP, DINP and DNOP (vinyl materials in toys and childcare articles that can, in a reasonably foreseeable manner, be placed in the mouth of a child under 4)

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Canada Consumer Product Safety Act (CCPSA, 2/4)

Citation	Requirement
Surface Coating Materials Regulations (SOR/2016-193): • Surface coating materials	≤ 90 ppm mg/kg lead content (dried sample) ≤ 10 mg/kg mercury (dried sample)
Surface Coating Materials Regulations (SOR/2016-193): • Products with an applied surface coating material*: i. Products for children, including furniture and ii. Pencils and artists' brushes	≤ 90 ppm mg/kg lead content
<small>*Amended by SOR/2022-122: New heading for lead content 'Products with applied stickers, films or surface coating materials': • Sticker, film or other similar materials that can be removed, or a surface coating material that is applied to an accessible part of the following products 1) furniture, 2) products for children, 3) pencils and 4) artist brushes - effective December 19, 2022</small>	

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Canada Consumer Product Safety Act (CCPSA, 3/4)

Regulations Amending Certain Regulations Made under the Canada Consumer Product Safety Act (Surface Coating Materials) (SOR/2022-122)

Regulation	Scope	Requirement ¹
• Cribs, Cradles and Bassinets Regulations (SOR/2016-152)	Stickers, films and surface coating materials on accessible part of product	≤ 90 mg/kg total lead ≤ 10 mg/kg total mercury ≤ 1,000 mg/kg any compound of antimony, arsenic, barium, cadmium or selenium using, for example, ASTM F963, EN 71-3 or ISO 8124-3
• Expansion Gates and Expandable Enclosures Regulations (SOR/2016-179)		
• Playpens Regulations (SOR/2018-186)		
• Toys Regulations (SOR/2011-17)		

¹Effective Date = December 19, 2022

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Canada Consumer Product Safety Act (CCPSA, 4/4)

Citation	Requirement
Products made in whole or in part of textile fibres, intended for use as wearing apparel (Schedule 2, item 10)	Prohibits tris (2,3 dibromopropyl) phosphate (TDBPP)
PU foam-containing products for children under 3 (Schedule 2, item 16; SOR/2014-79)	Prohibits tris (2-chloroethyl) phosphate (TCEP)

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US CPSIA of 2008

Consumer Product Safety Improvement Act (CPSIA) of 2008

Substance	Scope*	Requirement
Lead content	- Paint/similar coating materials - Paint on children's products - Paint on furniture - Accessible substrates in children's products ¹	≤ 90 ppm ≤ 100 ppm

¹Certain materials are exempt eg
 - 16 CFR 1500.91 'Determinations regarding lead content for certain materials or products under Section 101 of the CPSIA'
 - 16 CFR 1500.88 'Exemptions from lead limits under section 101 of the CPSIA for certain electronic devices'

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Comparison of Phthalates – US, Canada and EU

Item	Phthalate	US Federal 16 CFR 1107		Canada SOR 2016-188		EU REACH XVII Entries 51 & 52	
		Scope	Requirement	Scope	Requirement	Scope	Requirement
1	BBP	Accessible plasticized materials in toys and childcare articles	≤ 0.1%	Vinyl materials in toys and childcare articles	≤ 0.1%	Plasticized materials* in toys, childcare articles and other articles	< 0.1% (individually and in combination)
2	DBP		≤ 0.1%		≤ 0.1%		
3	DEHP		≤ 0.1%		≤ 0.1%		
4	DIBP		≤ 0.1%		----		
5	DPENP		≤ 0.1%		----		
6	DHEXP (DnHP)		≤ 0.1%		----		
7	DCHP		≤ 0.1%		----		
8	DINP		≤ 0.1%	Vinyl materials in toys and childcare articles that can, in a reasonably foreseeable manner, be placed in the mouth of a child under 4	≤ 0.1%	Plasticized materials in toys and childcare articles that can be placed in the mouth	≤ 0.1% (sum)
9	DNOP		----		≤ 0.1%		
10	DIDP		----		≤ 0.1%		

*Certain derogations apply eg food contact materials and articles

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California Proposition 65 (Prop 65)



- Background
 - Enacted in November 1986 as 'The safe Drinking Water and Toxic Enforcement Act of 1986'
 - To protect Californians and the state's drinking water sources from chemicals that cause cancer, birth defects and/or reproductive harm
- Prop 65 list contains approx. 900 chemicals e.g.
 - Heavy metals – e.g. lead and cadmium
 - Bisphenol A (BPA), chromium (VI), formaldehyde, flame retardants (e.g. TCEP, TDBPP and TDCPP)
 - Phthalates (BBP, DBP, DEHP, DIDP, DINP and DnHP)
 - PFNA and its salts, PFOA, PFOS, styrene etc

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Prop 65



- Scope and requirements
 - Businesses (eg manufacturers, distributors and retailers) are obliged to comply with 2 main provisions:
 - Prohibited from knowingly discharging a listed chemical into sources of drinking water – becomes effective 20 months after chemical has been listed
 - Required to provide a **clear and reasonable warning** before exposing anyone to a listed chemical - becomes effective 12 months after chemical has been listed
 - Consumer products may use a standard warning or short-form warning

Businesses with less than 10 employees are exempt!

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Selected Prop 65 Settlements

Item	Scope	Reformulation/Warning
1	Children's products	≤ 0.1% DEHP
2	PU foam, cushioning or padding used as a filling material in juvenile products such as pads for children and infants to lie on, mattress toppers and mats, strollers, children's car seats, infant walkers, bouncers, highchairs, nap/rest mats and positioning pillows	TDCPP, TCEP and TDBPP prohibited
3	Soft baby potty seats	≤ 1000 ppm each of DEHP and other phthalates on the Prop 65 list, otherwise warning
4	PVC packaging	≤ 0.1% each of DEHP, DBP, BBP, DnHP, DIDP and DINP

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Illinois Public Act 097-0612 Lead Poisoning Prevention Act (LPPA)

Substance	Scope	Requirement
Lead content	Children's products: <ul style="list-style-type: none"> Childcare articles to facilitate sleep, relaxation, or feeding of children or to help with sucking or teething (children = children under the age of 6) Toys containing paint for children under 12 Children's jewelry for children under 12 	Warning ¹ required if lead is more than 40 ppm but less than federal standards ²

¹Warning to contain at least the following:
WARNING: CONTAINS LEAD. MAY BE HARMFUL IF EATEN OR CHEWED. COMPLIES WITH FEDERAL STANDARDS

² 90ppm lead (paint/surface coating materials), 100 ppm lead (substrates)

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States with Reporting Rules - Children's Products

	Oregon	Vermont	Washington
Citation	ORS 431A.250 'Toxic-Free Kids Act'	18 VSA Chapter 38A § 1772 'Chemicals of high concern to children'	RCW Chapter 70.240 'Children's Safe Products Act'
Scope	Children's products	Children's products	Children's products
Reporting criteria	All materials	Accessible	Accessible
Chemicals to be reported	High priority chemicals of concern for children's health (HPCCCHs) ¹	Chemicals of high concern to children (CHCCs)	Chemicals of high concern to children (CHCCs)
Reporting criteria	HPCCCH is: <ul style="list-style-type: none"> ≥ PQL if intentionally added ≥ 100 ppm if a contaminant 	CHCC is: <ul style="list-style-type: none"> > PQL if intentionally added ≥ 100 ppm if a contaminant 	CHCC is: <ul style="list-style-type: none"> > PQL if intentionally added > 100 ppm if a contaminant
No. of entries /chemicals	73	86 (formaldehyde includes formaldehyde donors)	85
Next reporting deadline	January 1, 2024 (biennially)	January 31, 2023 (annually)	January 31, 2023 (annually)

¹HPCCCH to be phased-out by third biennial notice if chemical present in a children's product that is mouthable, a cosmetic or is intended for children under 3

²PQL = Practical Quantification Limit

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Maine – Toxic Chemicals in Children's Products

- Toxic Chemicals in Children's Products
 - 3 tiers of chemicals:
 - Chemicals of concern (CoCs)
 - Chemicals of high concern (CHCs)
 - Priority chemicals (PCs) – resulting in regulatory action
 - Children's products:
 - A consumer product intended for children under 12 years of age **AND**
 - Any consumer product containing a chemical of high concern (CHC) that when used or disposed of will likely result a child under 12 years of age or fetus's being exposed to that chemical

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Maine – Reporting PCs in Children's Products (1/2)

Rule Chapter	Priority Chemical (PC)	Scope of children's products for disclosure to Depart. of Environmental Protection (DEP) if PC is intentionally added and exceeds the practical quantification limit (PQL) ¹
882	Bisphenol A (BPA)	- Infant formula and baby food sold in plastic containers, jars or cans - Toys, childcare articles and tableware
883	Nonylphenol/Nonylphenol ethoxylates (NPs/NPEOs)	- Household and commercial cleaning products - Cosmetics and personal care products - Home maintenance products intended for use by consumers
884	Cadmium	- Childcare articles , clothing, cosmetics, craft supplies
885	Formaldehyde	- Footwear, games, jewelry and embellishments
886	Mercury	- Personal accessories, personal care products
887	Arsenic	- Safety seats , school supplies and toys
888	4 Phthalates - BBP, DBP, DEHP and DEP	- Building and home maintenance products - Clothing and footwear, cosmetics and personal products, craft supplies - Household and commercial cleaning products - Household furniture and furnishings - Personal accessories and jewelry

¹See Rule Chapter for specific scope and definition of children's products

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Maine – Reporting PCs in Children's Products (2/2)

Rule Chapter	Priority Chemical (PC)	Scope of children's products for disclosure to Depart. of Environmental Protection (DEP) if PC is intentionally added and exceeds the practical quantification limit (PQL) ¹
889	Decabromodiphenyl ether (Deca-BDE) Hexabromocyclododecane (HBCD/HBCDD)	- Childcare articles - Children's clothing, footwear, sleepwear and toys - Electronic devices - Household furniture and furnishings - Mattresses and mattress pads
890	Perfluorooctane sulfonic (PFOS) and its salts - PFOS - Potassium perfluorooctane sulfonate - Lithium perfluorooctane sulfonate - Ammonium perfluorooctane sulfonate - Diethanolammonium perfluorooctane sulfonate	- Childcare articles - Clothing, footwear, sleepwear - Cookware, tableware, reusable food and beverage containers* - Cosmetics and personal care products - Craft supplies, electronic devices - Household furniture and furnishings - Toys *Containers with a lid, cover, cap or nipple, such as baby bottles, spill-proof cups, sports bottles and thermoses , as well as disposable and reusable dishes such as plates, bowls, cups/glasses and cutlery. Receptacles containing food or beverage at the time of sale are exempt.

¹See Rule Chapter for specific scope and definition of children's products

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BPA Prohibition/Restriction in Food/Beverage Containers for Young Children

Item	Jurisdiction	Item	Jurisdiction	Item	Jurisdiction
1	Federal ¹	7	Maine	13	New York State ²
2	California ²	8	Maryland	14	Vermont
3	Chicago	9	Massachusetts	15	Washington
4	Connecticut	10	Minnesota	16	Washington DC
5	Delaware	11	Multnomah County (Oregon)	17	Wisconsin
6	Illinois	12	Nevada		

¹Prohibits polycarbonate (PC) resins in infant feeding bottles and spill-proof cups
²≤ 0.1 ppb BPA (Health and Safety Code, Division 104, Part 3, Chapter 12 (AB 1319, 2012))
³Scope includes pacifiers

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General Overview of Flame Retardants

Item	Jurisdiction ¹	Item	Jurisdiction ¹	Item	Jurisdiction
1	Alaska - Anchorage	8	Massachusetts	15	Oregon
2	California	9	Michigan	16	Rhode Island
3	California – San Francisco	10	New Hampshire	17	Vermont
4	Hawaii	11	Nevada	18	Washington
5	Illinois	12	Minnesota	19	Washington DC
6	Maine	13	New Hampshire		
7	Maryland	14	New York State		

¹Scope of products, types of flame retardant and requirements are specific to each jurisdiction

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PFAS in Juvenile Products

Jurisdiction/Citation	Scope	Requirement	Effective Date
California ^{1, **} Health and Safety Code, Division 104, Part 3, Chapter 12.5 'Juvenile Products (AB 652, 2021)	Juvenile products	Prohibited if either intentionally added that has a functional or technical effect, or ≥ 100 ppm (as total organic fluorine)	July 1, 2023
Colorado HB 22-1345 'Concerning Measures to Increase Protections from PFAS Chemicals' ^{***}	Juvenile Products	Prohibited if intentionally added	January 1, 2024
Maine Title 38, Chapter 16 'Sale of Consumer Products Affecting the Environment' (LD 1503, Chapter 477, 2021)	Products	Manufacturer (includes importer or first domestic distributor by law) to submit notification if product contains intentionally added PFAS	January 1, 2023
	Products	Prohibited	January 1, 2030

¹CA Prop 65 list of chemicals includes 1) PFOA, 2) PFOS, 3) PFOS and its salts and transformation and degradation precursors and 4) perfluorooctanoic acid (PFNA) and its salts
^{**}CA AB 1817, Chapter 762, 2022, regulates PFAS in textile articles (apparel (eg clothing such as bibs & footwear) and outdoor apparel), starting January 1, 2025
^{***}Also regulates intentionally added PFAS in, inter alia, 1) carpets and rugs, 2) fabric treatments, 3) food packaging derived from plant fibers, 4) cosmetics, 5) indoor and outdoor textile furnishings and 6) indoor and outdoor upholstered furniture

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Composite Wood Products

- US Federal**
 - Toxic Substances Control Act Title VI (TSCA Title VI) 'Formaldehyde Standards for Composite Wood Products'
- US California**
 - Airborne Toxic Control Measure (ATCM) to Reduce Formaldehyde Emissions from Composite Wood Products.
- Canada**
 - Formaldehyde Emissions from Composite Wood Products Regulations (SOR/2021-148)

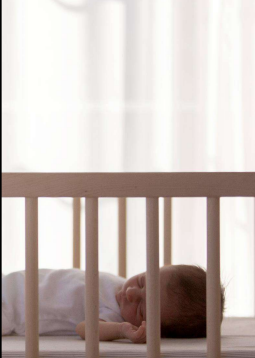


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How can SGS help?

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SGS Services

- EU**
 - REACH (SVHCs and restricted substances), Food Contact, POP Recast Regulation and European Standards (EN))
- North America**
 - Formaldehyde Emissions from Composite Wood, including certification of composite wood panel manufacturers
- US**
 - CPSIA, Food Contact (FDA), State/Local Laws eg Prop 65, BPA, flame retardants, Reporting Rules for Children's Products
- Canada**
 - Canada Consumer Product Safety Act (CCPSA)




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Download the materials from the webinar at www.sgs.com/forum2022


Thank you for listening

- Enter your questions in the Q&A box
- Let us hear your thoughts by answering the polls by the end of Q&A


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Baby bottle. Tested.



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