

Global NIP Update Webinar “Activity Options for Action Plans for Stockholm Convention NIPs: <sup>1</sup>  
Brominated, chlorinated, and other POPs plastic additives”, 22. January 2026, 14:00 -16:30 CET



## Action Plan Considerations for Management and Phase-Out of Medium- & Short-Chain Chlorinated Paraffins (MCCP/SCCPs)

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<https://www.researchgate.net/profile/Roland-Weber-2>



## 25 POPs were newly listed in the Stockholm Convention 2009-2025

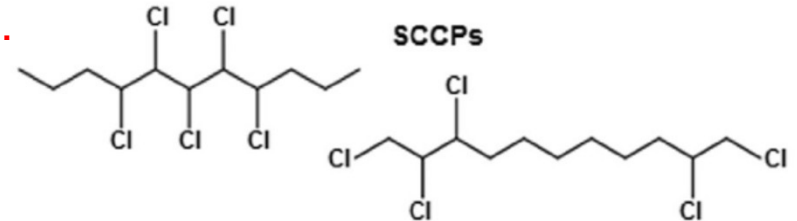
Chemical	Pesticides	Industrial chemicals	Unintentional production	Annex
Chlordecone, Endosulfan, Dicofol	+			A
$\alpha$ - $\beta$ -HCH, Lindane, Methoxychlor	+			A
PCP its salts & ester; Chlorpyrifos	+	+		A
<b>Commercial PentaBDE</b>		+		A
<b>Commercial OctaBDE (hexa/hepta)</b>		+		A
<b>DecaBDE</b>		+		A
<b>Hexabromobiphenyl (HBB)</b>		+		A
<b>Hexabromocyclododecane (HBCD)</b>		+		A
<b>PFOS, its salts and PFOSF</b>	+	+		B
<b>PFOA and related compounds</b>		+		A
<b>PFHxS and related compounds</b>		+		A
<b>Long-chain PFCAs</b>		+		A
<b>SCCPs (C10-C13; <math>\geq</math>48%)</b>		+		A
<b>MCCPs (C14-C17; <math>\geq</math>45%)</b>		+		A
<b><i>Dechlorane Plus</i></b>		+		A
<b><i>UV-328</i></b>		+		A
<b>Hexachlorobutadiene (HCBd)</b>		+	+	A/C
<b>Pentachlorobenzene (PeCBz)</b>		+	+	A/C
<b>Polychlorinated Naphtalene (PCN)</b>		+	+	A/C

**Short-chain chlorinated paraffins (SCCPs)** were listed 2017 in Annex A and received a wide range of exemptions.

**Medium-chain chlorinated paraffins (MCCPs)** were listed at COP12 in May 2025 with a wide range of exemptions.

## Technical mixtures of chlorinated paraffines and POPs listed – depending on chain length and degree of chlorination

- **Chlorinated paraffins (CPs)**, are complex mixtures of chlorinated alkanes ( $C_nH_{2n+2-x}Cl_x$ .)
- According to their chain length, CPs are subdivided into **short-chain CPs (SCCPs, C10–C13)**, medium-chain CPs (**MCCPs, C14–C17**) and long-chain CPs (LCCPs, C18–C30),
- Chlorinated paraffins are **produced with different chlorination degree** varying from 30% to 70% (w/w). The variation option in chain length and chlorination degree makes them versatile and **approx. 200 commercial CP formulations are in use.**



- The **Stockholm Convention listed SCCPs with a chlorine content of  $\geq 48\%$  as POPs.**
- **Also CP mixtures with  $\geq 1\%$  of SCCPs ( $\geq 48\%$  Cl) are considered POPs.**
- **MCCPs (C14–C17) with chlorine content  $\geq 45\%$  were listed at COP12 in 2025.**
- **Also CP mixtures with  $\geq 3\%$  of MCCPs ( $\geq 45\%$  Cl) are considered POPs.**

# POPs present in the three sectors and main use period

SCCP/MCCPs are also used extensively in EEE, transport and construction. However, they have a range of further uses and cannot be largely be covered by these three sectors.

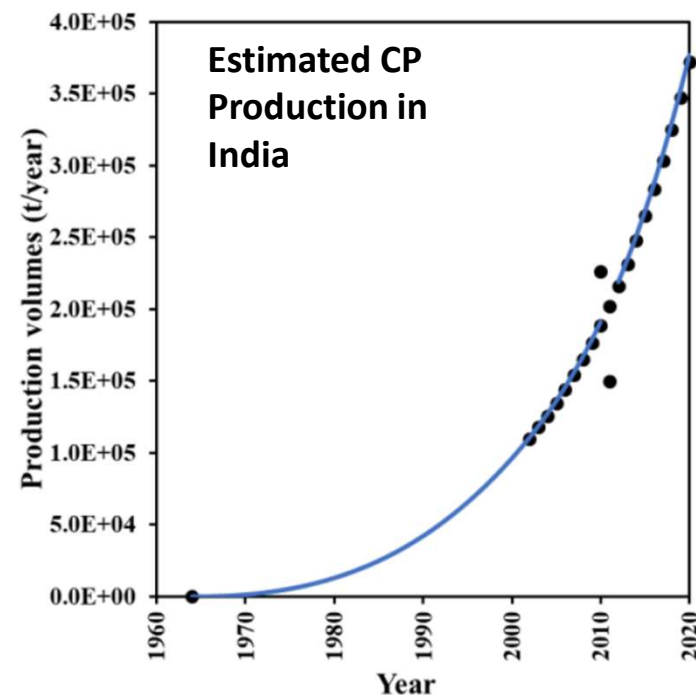
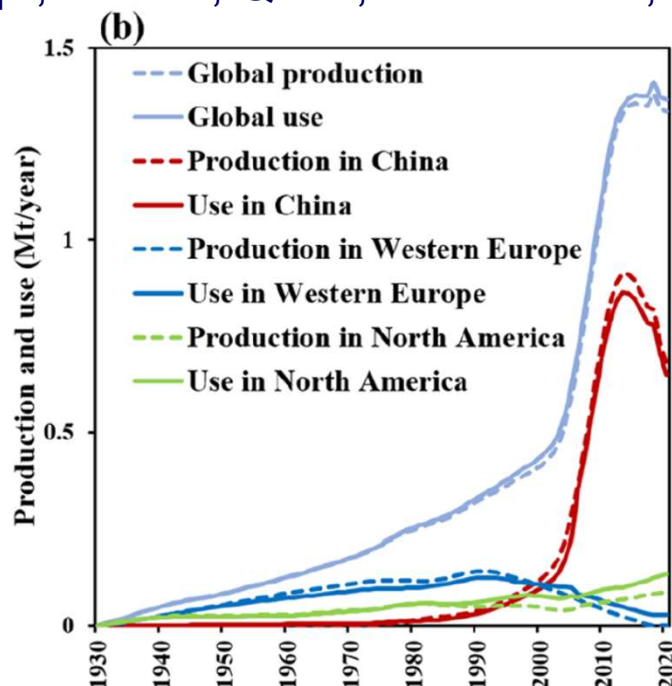
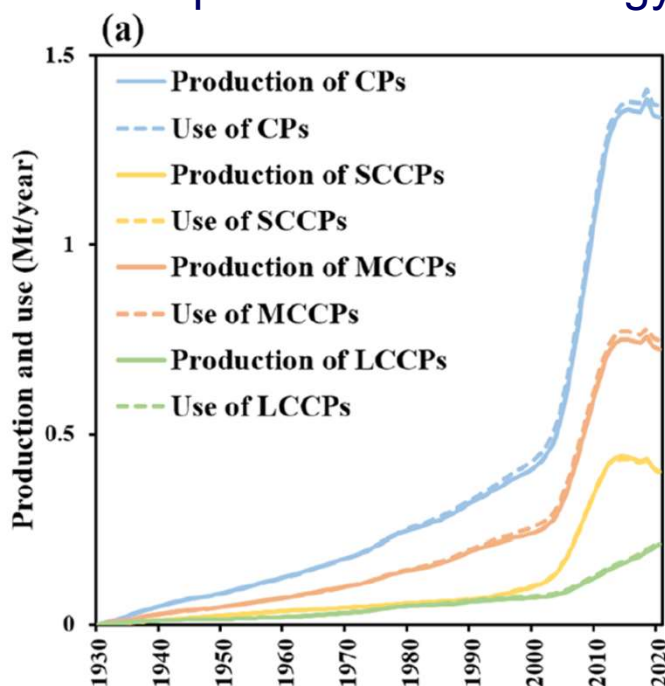
POP (main production & use period)*	Building & Construction Sector	Electrical & electronic equipment	Transport Sector
<b>c-PentaBDE (1970-2004)</b>	Former use	Minor former use	Major former use
<b>c-OctaBDE (1970-2004)</b>	Minor former use	<b>Major use</b>	Minor former use
<b>decaBDE (since 1970s)</b>	<b>Major use</b>	<b>Major use</b>	<b>Major use</b>
<b>HBCD (1980 to 2021)</b>	<b>Major former use</b>	Minor former use	Minor former use
<b>HBB (1970 to 1976)</b>	Not relevant	Minor former use	Minor former use
<b>SCCP (Since 1930s)</b>	<b>Major use</b>	Minor use	Minor use
<b>MCCP (Since 1930s)</b>	<b>Major use</b>	Use	Use
<b>PFOS (1960 to 2012)**</b>	Former use	Former use	Former use
<b>PFOA (since 1960s)</b>	Former use	Minor use in product	Use
<b>PFHxS (1960 to 2021)</b>	Former use	Former use	Former use
<b>PCB (1940 to 1980)</b>	<b>Major former use</b>	Former use	Minor former use
<b>PCN (1930 to 1970s)</b>	Minor former use	Minor former use	Minor former use
<b>PCP (1930 to 2015)</b>	Major former use	Not relevant	Minor former use
<b>DDT, aldrin, dieldrin, lindane, endosulfan, Mirex (1940 to 2000)</b>	Former use	Not relevant	Not relevant
<b>Dechlorane Plus (DP)</b>	Use	Use	Use
<b>UV-328</b>	Major use	Major use	Major use



\*Main period for production/use in these sectors;\*\*Major production/use stopped 2002 by 3M.

## Estimate of global production & use of SCCPs and other CPs

- Global production of CPs has increased drastically over the past 20 years, surpassing 1 Mt/a since ~2010. Current **production ~1.4 Mt/a** (Chen et al 2022). **Global production capacity is above 2 Mt/a.**
- Total production of **SCCPs** is estimated at 300,000 t/a but often in CP-mixtures. The **total amount of MCCPs is close to 1,000,000 t/a** (Guida et al. 2022; Xia et al. 2021).
- China & India are the largest **CP producers** with estimated **700,000 t/a** & **375,000 t/a** (Chen et al. 2022). Further productions are in Egypt, Russia, Qatar, South Africa, USA. Some restricted SCCPs.



Chen et al. (2022) ES&T <https://doi.org/10.1021/acs.est.2c00264>

# Estimated former & current share of CP use globally & in China (review)<sup>6</sup>

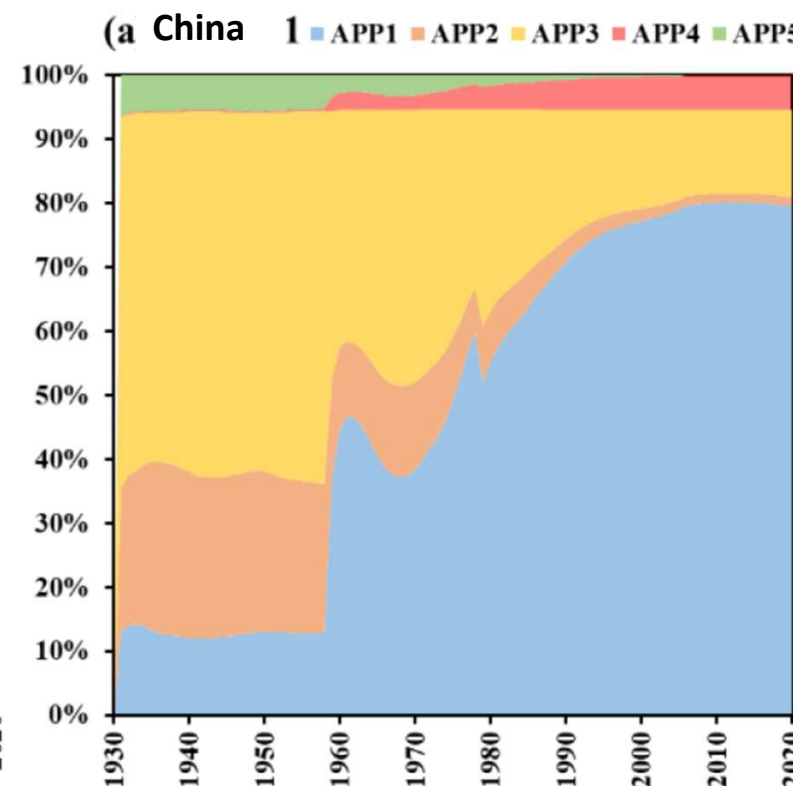
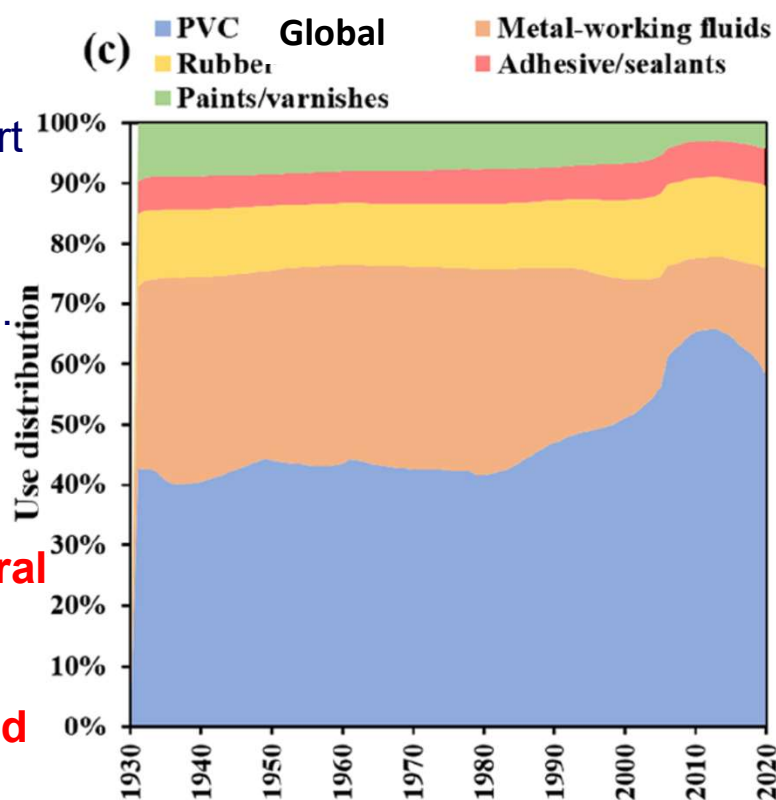
- By 2020, a cumulative total of ~**33.2 Mt of technical CPs** have been produced including **9.3 Mt SCCPs** (28%) and **18.9 Mt MCCPs** (57%). Major global estimated use is in **PVC (60%)**, followed by **rubber (15%)**, **lubricants/MWF (15%)**, **adhesives/sealants (6%)** and **paints/coatings (4%)**. (By 2026 40 Mt!)

- **60% of PVC is used in construction, 9-15% is used in EEE and transport**

- For rubber 70% is used in transport (tires low CP) and **10% in construction.**

- **Also paints, coatings and sealants are mainly used in construction.**

- **However there are several other uses like metal working fluids (MWF), lubricants, fatliquors and in textiles.**



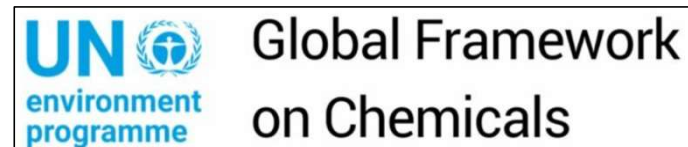


# 1. Regulatory framework for SCCPs and MCCPs

**Objective:** Established policy and regulatory frame for the use, management and substitution of SCCPs and MCCPs in industrial uses and in products & waste.

**Recommended activity options:**

- Assessment of regulatory frames for controlling SCCPs and MCCPs (e.g. EU POP Directive).
- Amend existing laws, or develop new laws related to the restriction, control and management of SCCPs and MCCPs including low POP content limit and unintentional trace contaminant limits.
- **Consider in the regulatory frame the exemptions needed for MCCPs.**
- Improvement of customs control and of the labelling and traceability of chemicals and chemicals in products (**GHS implementation; GFC synergy**).
- Possibly implement extended producer responsibility (EPR) for SCCP/MCCPs and related products.



## 2. Refining the inventory for SCCP/MCCPs (and other CP) use

**Objective:** Established inventory of SCCP/MCCPs in past and current use, as well as the former use of PCB/PCN in open applications and developed/updated database for information management.

### **Recommended activity options:**

- Inventory of companies producing CPs and inventory of the CP mixtures, customers and uses.
- Use CAS numbers to assess companies that import or trade chemicals with suspected HS Codes.
- Assess companies which are possibly using CPs in production (producers of PVC, rubber, paints, lubricants, fatliquors) including the supply chains.
- Inventory of the **import** and presence of SCCP/MCCPs **in products** (e.g., MWF, lubricants, fatliquors, sealants, PVC, PUR spray foams, paints).
- Assessment of former use and presence in sealants & paints in buildings and structures combined with an assessment of PCB/PCN in these uses.
- Inventory of minor exempted uses in the listing of MCCPs.
- **Inventory of recycling cycles** possibly impacted by SCCP/MCCPs (e.g., PVC/plastics, cables, rubber, waste oil).
- Material and substance flow analysis of SCCP/MCCPs (link to sectoral inventory activities).



Guidance on preparing inventories of short-chain chlorinated paraffins (SCCPs)

Detailed guidance

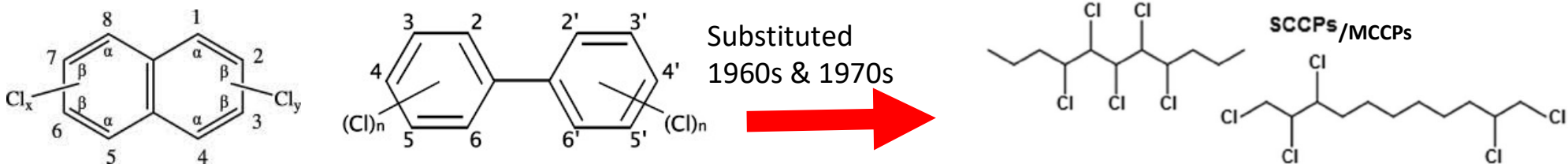
2019

Secretariat of the Basel, Rotterdam and Stockholm Conventions



Strategy: Combine the inventory of MCCCP/SCCPs with the inventory of former uses and stocks of PCB/PCNs in open applications

- **SCCPs and MCCPs** substituted PCBs and PCNs in the 1960s and 1970s in several open applications and SCCP/MCCPs are still used in large volumes in these uses.
- **PCBs** have been used in a wide range of open applications (e.g. sealants, paints/coating, plastic/cables, cutting oils) from the 1950s to ca.1975 (and in some countries longer).
- **PCNs** have been used in the same applications as PCBs since 1930s and in some countries until 2000. **The overall use was smaller (1/10) – mainly substituted by PCBs in 1950s/60s.**
- **Remaining PCBs and PCNs in use in open applications can be assessed (and managed) within the assessment of SCCPs and MCCPs sealants and paints in buildings in use.**



## 2. Refining the inventory for SCCP/MCCPs (and other CP) use

**Objective:** Established inventory of SCCPs/MCCPs in past and current use as well as the former use of PCB/PCN in open applications and developed/updated database for information management.

**GGKP webinar on inventory of SCCP/MCCPs gives a good overview** on the methodologies and on basic info.



ENG. Webinar 07. Introduction to SCCP/MCCP and PFA...

**Global NIP Update - "Introduction to SCCP/MCCP and PFAS and Inventory Development"**

Tuesday, 17 September 2024, Online (Zoom)  
14:00-16:00 Geneva (CEST) (GMT +2)

Hosted by: Green Growth Knowledge Partnership (GGKP)

Ansehen auf  YouTube

National Implementation Plans  
Später  
Teilen

<https://www.greenpolicyplatform.org/webinar/introduction-sccpmccp-and-pfas-and-inventory-development>

**Speakers:**

Mr. Roland Weber, International Environmental Consultant  
Ms. Stéphane Horel, Le Monde

**Modertor:**

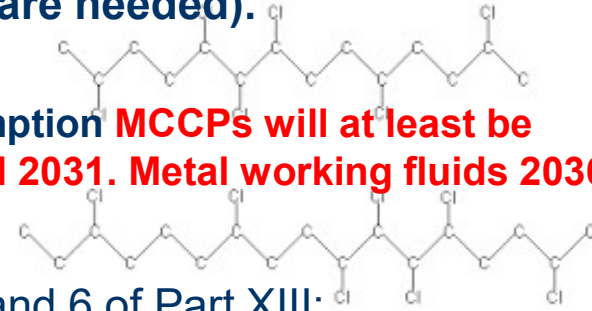
Ms. Anastasiya Buchok, Senior Project Assistant, GGKP

### 3. Assessment of alternatives to MCCPs – Exemptions (stopped for SCCPs)

Exemptions for MCCP in Stockholm Convention listing (Part XIII of Annex A ) (Decision SC12/10):

Within the inventory also assessment what exemptions are used (and are needed).

- Flexible polyvinyl chloride (PVC), limited to the 4 uses;
- Adhesives and sealants, limited to the 3 uses; ⇒ With a 5 years exemption **MCCPs will at least be produced/used until 2031. Metal working fluids 2036.**
- Flexible elastomeric foam for thermal insulation;
- Fatliquoring component in leather, except in children's products;
- Metalworking fluids, in accordance with the provisions of paragraphs 5 and 6 of Part XIII;
- Solid woven conveyor belts used in underground coal mines;
- Polymers and rubbers used in repair and replacement parts (including PVC, ethylene propylene diene monomer (EPDM) rubber, chloroprene (CR), nitrile butadiene rubber (NBR) and chlorinated polyethylene (CPE)), in accordance with the provisions of paragraph 7 of Part XIII;
- Emergency response pyrotechnic devices; paints & coatings for ammunition and ammunition markings;
- Ammunition pyrotechnic defence devices to achieve specific effects (e.g., sound, smoke, light), in accordance with the provisions of paragraphs 8 and 12 of Part XIII;
- Tape used for non-structural bonding in aerospace and defence products;
- Intumescent coating and paint for space and defence equipment and its packaging to protect against extreme temperature, in accordance with the provisions of paragraphs 9 and 12 of Part XIII;
- Coating and paint for the repair of, and use in replacement parts for, space and defence equipment, in accordance with the provisions of paragraphs 10 and 11 of Part XIII

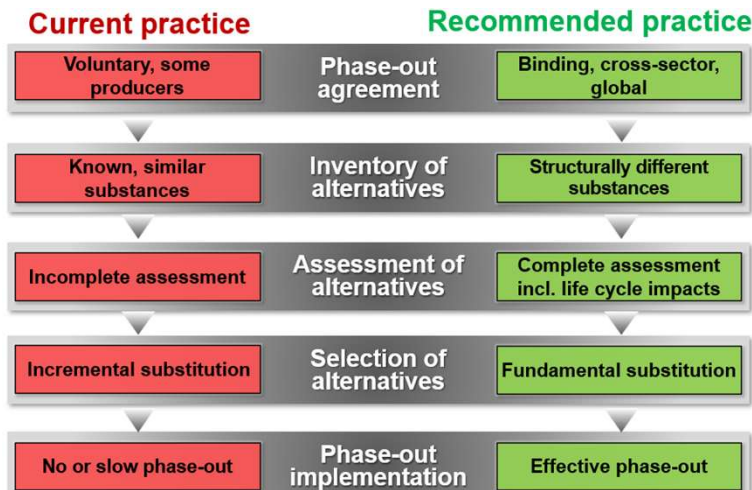


### 3. Assessment of alternatives to MCCPs and SCCPs

**Objective:** Alternatives to MCCP/SCCP are assessed and uses of MCCPs/SCCPs are substituted by the most sustainable chemical and non-chemical solutions.

#### Recommended activity option:

- Compilation of information on alternatives for SCCPs/MCCPs in exempted uses including chemical & non-chemical alternatives and assessment what alternatives are currently available for the country.
- Education and capacity building on alternatives assessment.
- Selection of the most sustainable alternatives in applications of SCCP/MCCPs and promotion of related substitution.



<https://www.oecd.org/en/data/tools/substitution-and-alternatives-assessment-toolbox-for-chemicals-and-nanomaterials.html>

#### Substitution and Alternatives Assessment Toolbox (SAAToolbox) for chemicals and nanomaterials



Global Framework on Chemicals



UNEP POPs COP 9 INF 21  
Annex

Preliminary draft guidance on alternatives to short-chain chlorinated paraffins (SCCPs)

February 2019

This guidance will be updated to include MCCPs

## 4. Assessment and selection of alternatives to MCCP/SCCPs (2)

**Objective:** Alternatives to MCCP/SCCP are assessed and uses of MCCPs/SCCPs are substituted by the most sustainable chemical and non-chemical solutions.

**Recommended activity option:**

- **Science based assessment** if any **exemption for the use of MCCP/SCCPs is needed.**
- **Notification of the BRS Secretariat /COP on the needed of exemption for MCCPs (SCCP exemptions expired 12/2023 SC 11/1) with the appropriate information** (What exemption(s), estimated quantity of production/use, purpose of production / use, reason for exemption).
- **Periodic review to assess the need for continued exemptions and assess alternatives. Stop exemption and use by more sustainable alternatives as soon as feasible.**

BRS CONVENTIONS

BASEL CONVENTION

ROTTERDAM CONVENTION

STOCKHOLM CONVENTION

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Overview

Decisions

### Registers of Specific Exemptions for chemicals listed in Annex A

<https://chm.pops.int/Implementation/Exemptions/SpecificExemptions/ShortchainchlorinatedparaffinsRoSE/tabid/7595/Default.aspx>

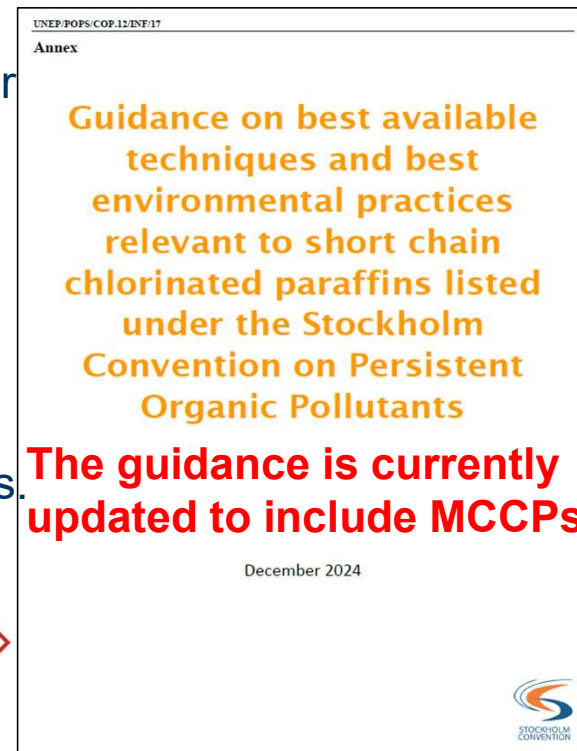


## 4. Application of BAT/BEP if exempted uses are needed

**Objective:** BAT/BEP is applied for exempted production and uses of MCCPs, and releases and exposure are minimized.

### Recommended activity options:

- Apply BAT/BEP in **the production of MCCPs** and implement control measures for releases and waste management.
- Apply BAT/BEP if MCCPs are used in the production of polymers & other products (e.g., production of PVC, rubber, MWF, paint, insulation foam).
- Apply BAT/BEP when MCCP-containing products are used in industry (e.g., use of metal working fluids or fatliquors; high exposure risk of workers! and release to the environment!!).
- Monitoring of BAT/BEP compliance of industries by competent authority.
- Require labelling of chemicals, mixtures and products containing MCCPs.



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on Chemicals



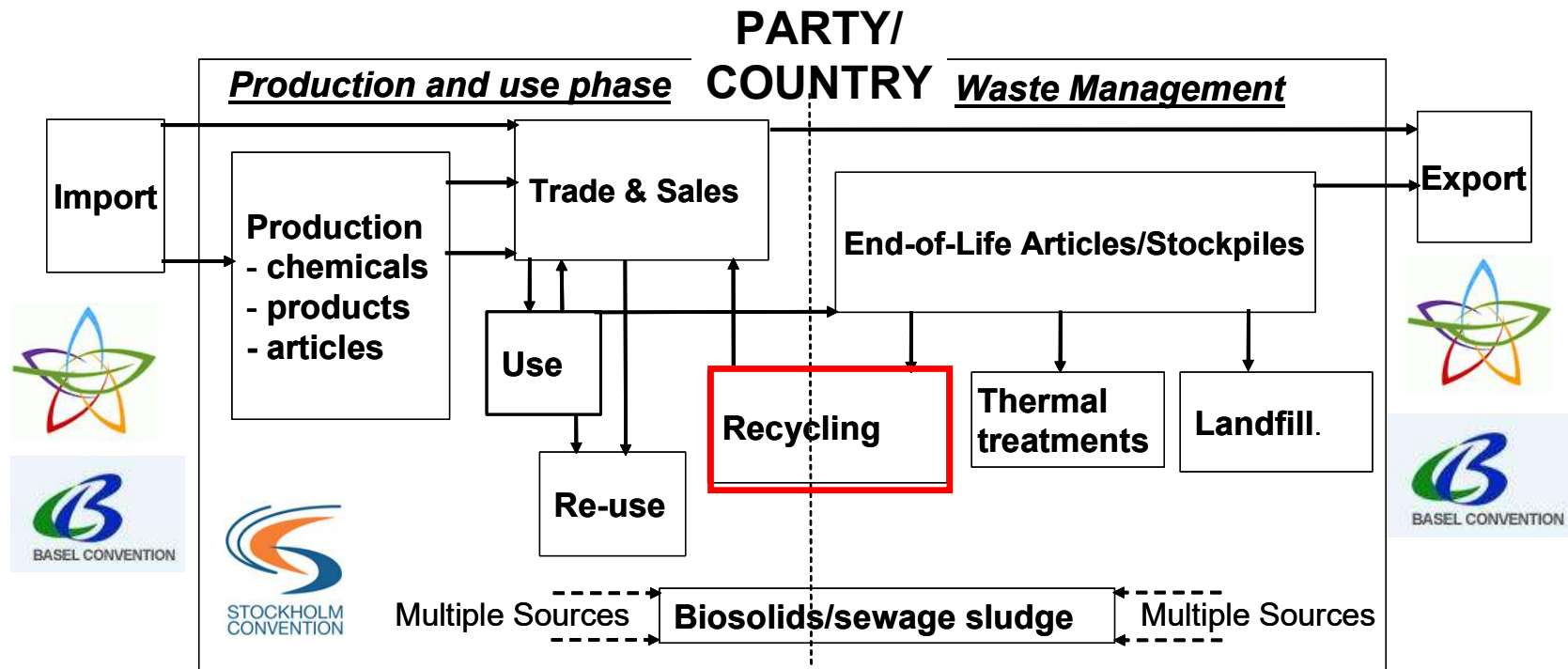
International  
Labour  
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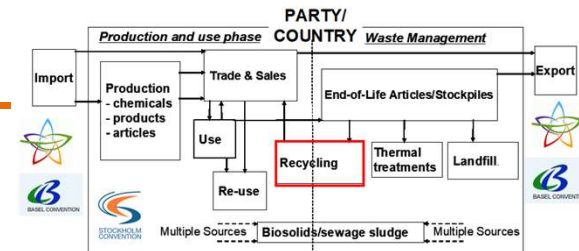


## Action plan consideration: SCCP/MCCPs need control along the life cycle

- Action plan and regulatory frame should address SCCP/MCCP (all POPs) **in the life cycle**.
- As POPs become more prevalent in products and more countries move towards a circular economy, controlling recycling is becoming increasingly important.



## 5. Life cycle management of SCCP- and MCCP-containing products, stockpiles and waste



**Objective:** Life cycle management (import, handling, storage, transport, recycling and disposal) of SCCPs and MCCPs and MCCP/SCCPs in products and wastes.

### Recommended activity option:

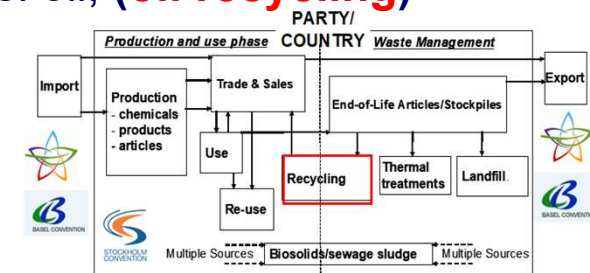
- Control/restrict the import of SCCPs and MCCPs and CP products containing SCCPs/MCCPs.
- Assess the waste management and stocks of chlorinated paraffins productions and users.
- **Assess and stop the use of SCCPs and MCCPs** and CP mixtures containing SCCPs >1% or MCCPs >3% in the major industrial and other uses including consumer products.
- **Assessment of the current situation and improvement needs regarding the management of waste containing SCCP/MCCPs (and PCB/PCNs) (e.g. PVC, cables, rubber, waste oil, CDW).**
- **Assessment and monitoring of recycling** of waste products containing SCCP/MCCPs and remaining PCB/PCNs (e.g., PVC, oil, rubber, cables, **CDW**) **considering UTC and LPC limits.**
- Environmentally sound management and disposal of SCCP/MCCP-containing products & wastes.

## SCCP/MCCPs in the Stockholm Convention with many exemptions - impact on recycling streams & circular economy

Large amount of SCCP/MCCP are in use. Plus Stockholm Convention with many specific exemptions for SCCPs (expired) and MCCPs. For all major uses **future recycling & circular economy problems:**

- Secondary plasticizers in **flexible PVC**, (**PVC recycling**, **plastics CDW**).
- Rigid PUR spray foam adhesives/sealant; (**construction and demolition waste (CDW)**).
- Waterproofing and fire-retardant paints; (**CDW**)
- **Rubber:** Additives and flame retardant in the production of transmission belts in the natural and synthetic rubber industry; (**rubber recycling**)
- Spare parts of **rubber conveyor belts** in the mining & forestry industries;
- **Leather** industry, in particular **fatiguing in leather (leather recycling)**;
- **Lubricant additives**, for engines of automobiles, electric generators and wind power facilities, and for drilling in oil and gas exploration, petroleum refinery to produce diesel oil; (**oil recycling**)
- **Metal cutting/processing oil (oil recycling)**

The World Chlorine Council proposed in POPRC to **exempt for recycling for MCCP**. This was not considered in the recommendation of listing.

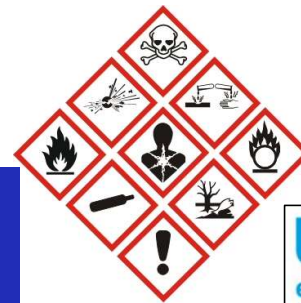


## 6. Education/awareness raising on SCCP/MCCP in the major use sectors and products

**Objective:** Major stakeholders are aware and educated on risks and exposure to SCCP/MCCPs (integrated in awareness and training of CoC in production and products (GFC synergy).

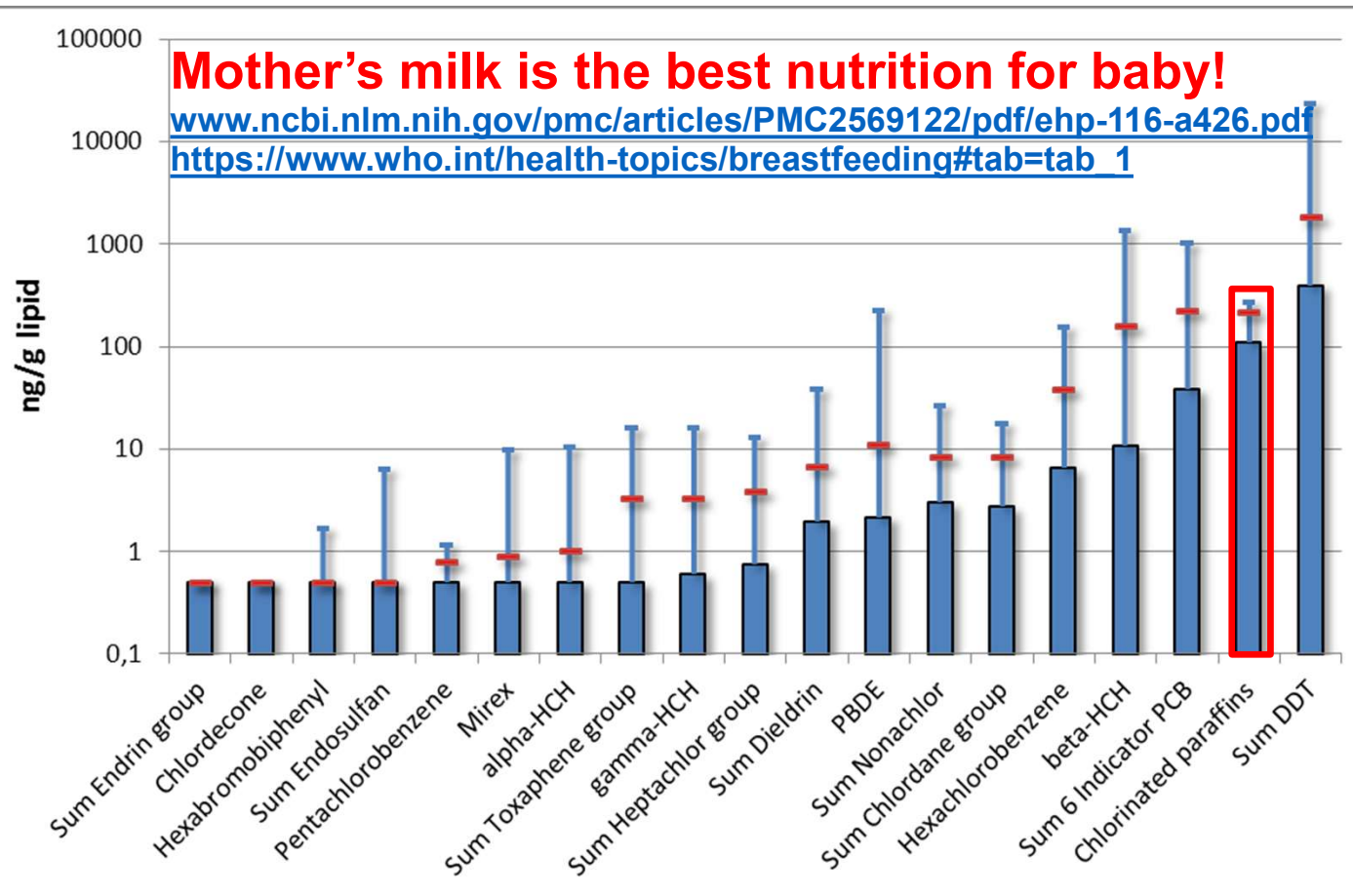
### Recommended activity options:

- **Developing awareness raising and education materials** on SCCP/MCCPs for the different stakeholders including policy makers, industry, retail, & consumers (considering available materials).
- Awareness raising and education of stakeholders (policy makers, customs, retail, sale) on POPs in potentially impacted products **within a larger education activity on hazardous chemicals in products (GFC synergy; synergy to SDG 12)**.
- Capacity building and training of workers in productions where SCCP/MCCPs are produced or used as well as recyclers and waste management where CP-containing products are managed.
- Awareness raising of the public on SCCP/MCCP in products **within a general awareness on chemicals in products and sustainable consumption**.



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## High SCCP/MCCP levels in WHO/UNEP human milk survey



POPs in human milk from global UNEP/WHO study under GMP of SC (65 countries; 2000-2012).

**SCCP/MCCP levels in human milk are increasing in most regions and are higher than PCB.** Only average/mean DDT levels are higher.

**Good news: Most POPs decreased in human milk in recent decade(s)!**

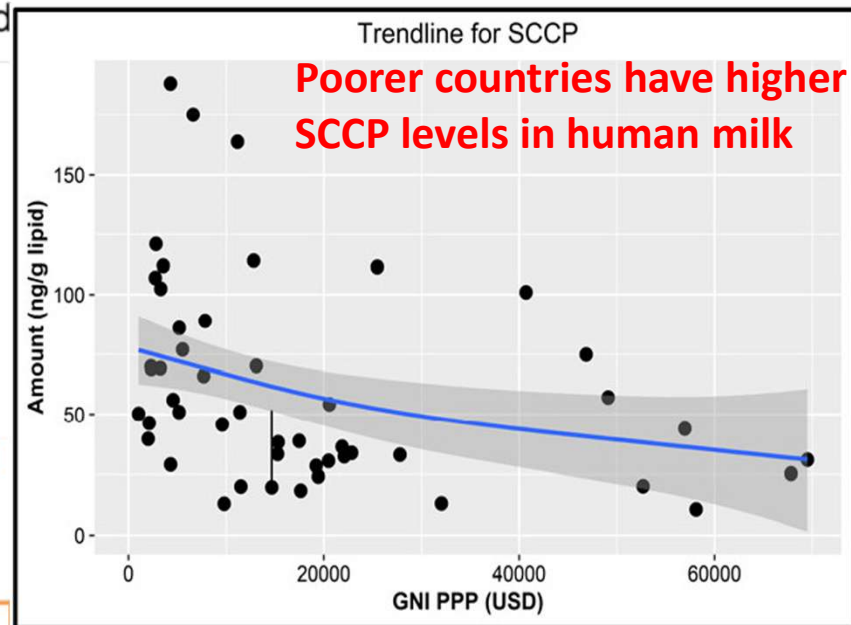
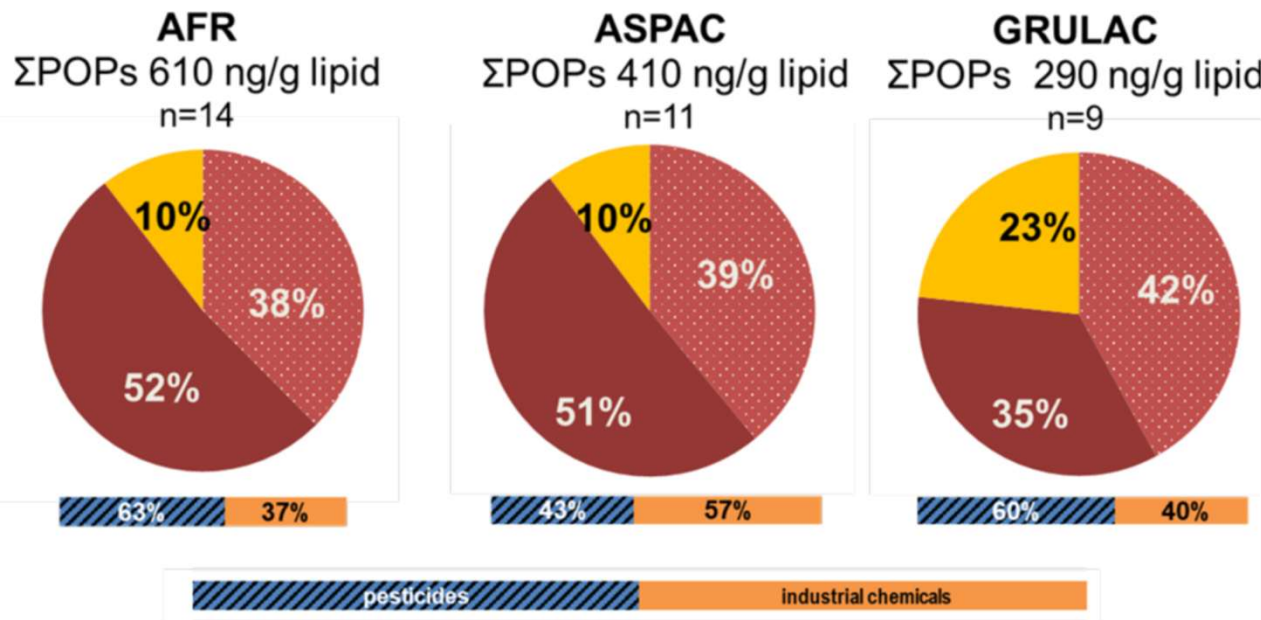
Ref: Krätschmer K, Malisch R, Schächtele A, Vetter W  
 WHO & EU POPs Reference Laboratory 2019.

- **SCCPs/MCCPs have a lower toxicity compared to PCBs.**
- EFSA evaluated the data and concluded that the margin of exposure (MOEs) is 3 to 5 × 10<sup>3</sup>.
- **But sensitive endpoint not yet assessed (e.g. developmental & neurotoxicity child)!**



# Chlorinated paraffins in human milk – poorer countries have higher levels <sup>20</sup>

- African and Asian countries have the highest MCCP & SCCP contamination in human milk.
- **Mother milk is still the best food for babies** (WHO recommends breast feeding for at least 6 months [https://www.who.int/health-topics/breastfeeding#tab=tab\\_1](https://www.who.int/health-topics/breastfeeding#tab=tab_1) )



Gross National Income based on Purchasing Power Parity  
Fiedler (2023) Environ. Health 1, 1, 41-52

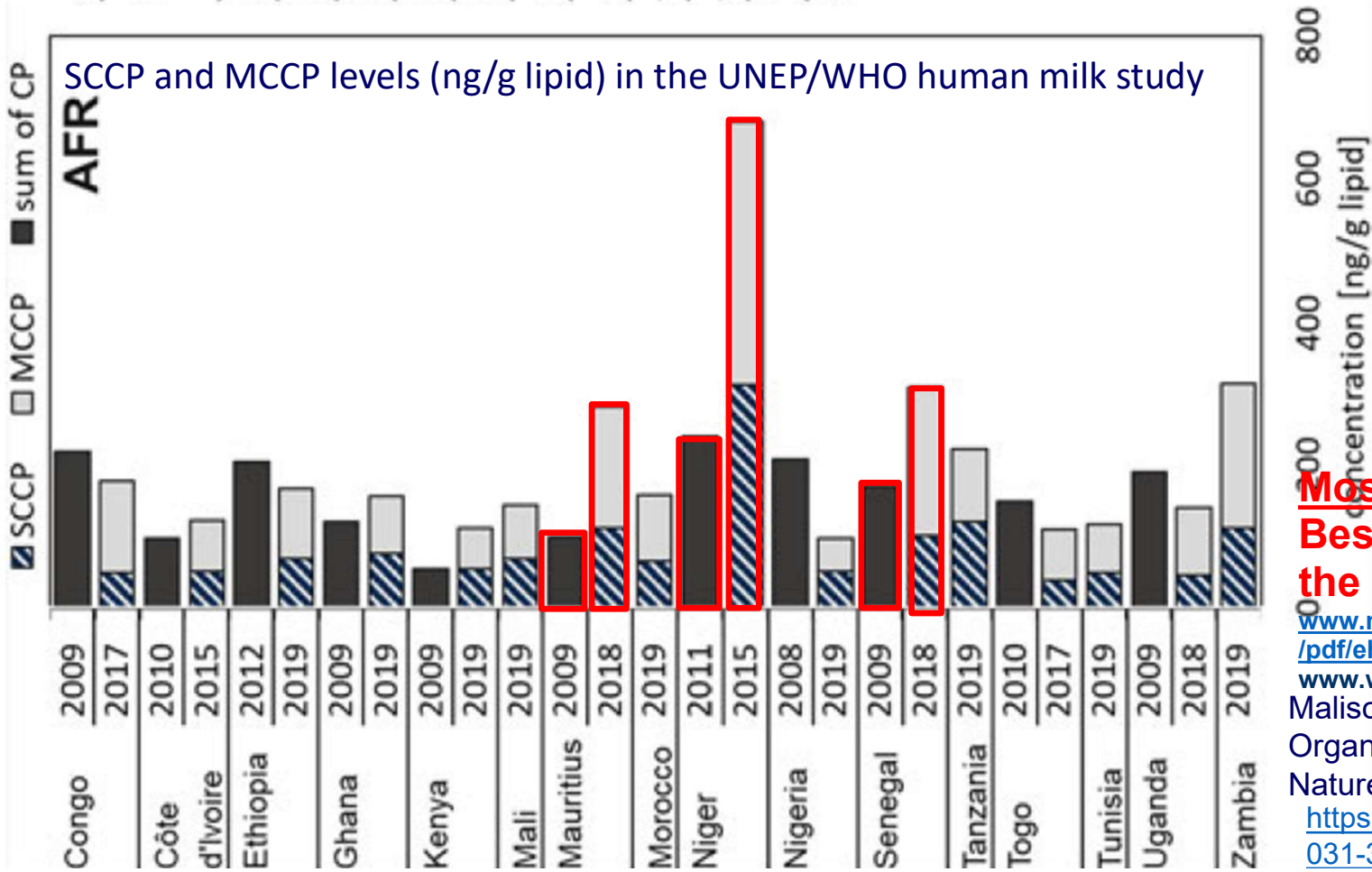
## Industrial chemicals

- Σ SCCPs
- Σ MCCPs
- other industrial chemicals and by-products



# SCCP/MCCP in breast milk in African countries (UNEP/WHO)

Levels of SCCP and MCCP in human milk have increased in several countries between 2008 & 2018 and are now several 100 ng/g lipid and indicating large inflow of SCCPs and MCCPs (here to Africa).



**Most other POPs decreased!  
Best to feed only breast milk  
the first 6 month! (WHO)!**

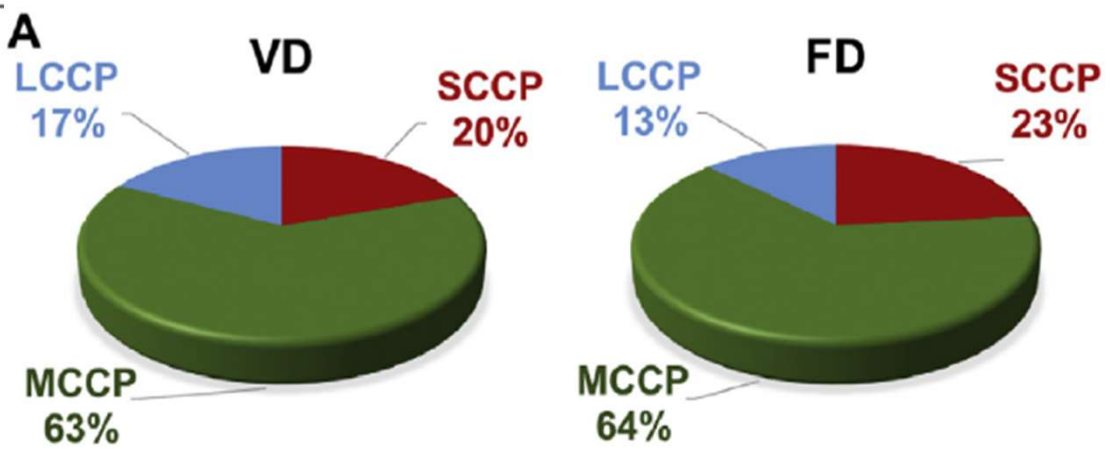
[www.ncbi.nlm.nih.gov/pmc/articles/PMC2569122/pdf/ehp-116-a426.pdf](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2569122/pdf/ehp-116-a426.pdf);  
[www.who.int/topics/breastfeeding/en](http://www.who.int/topics/breastfeeding/en)  
Malisch R, Fürst P, Šebková K, Persistent Organic Pollutants in Human Milk. Springer Nature; 2023.  
<https://link.springer.com/book/10.1007/978-3-031-34087-1>

# High SCCPs, MCCPs and LCCPs levels in South African house dust

- High SCCPs, MCCPs, (and LCCPs) levels were detected in all house dust samples in South Africa with a mean conc. of >200 mg/kg in dust (maximum of 660 mg/kg!)
- MCCPs were the dominant CPs followed by SCCPs and LCCPs.
- Similar house dust levels in studies in Beijing/China and Thailand.

**C**

Congener group	VD (µg/g)				FD (µg/g)			
	Mean	Median	Min	Max	Mean	Median	Min	Max
ΣSCCP	48	14	5.1	214	62	17	5.4	353
ΣMCCP	69	46	13	200	142	47	21	498
ΣLCCP	17	13	4.3	74	24	9.4	1.9	108
ΣCP	135	68	36	488	228	94	33	663



• The major sources are likely releases from plastic materials in construction (PVC, PUR spray foam and rubber). Also paints & coatings might contribute.

Brits et al. (2020) Chemosphere 238, 124643.

## 7. Analysis and monitoring of SCCPs and MCCPs in priority areas

**Background:** Without monitoring of products or recycling, it is impossible to identify contaminated products or to control imports or recycling cycles. The analysis of SCCPs/MCCPs is **more complex & complicated** than e.g. PCB where many LMICs countries already face challenges.

**Objective: Established analysis of SCCPs and MCCPs and monitoring of relevant priority products and matrices and be able to control their use and to reduce & prevent exposure.**

### **Recommended activity options:**

- Assessment of options for monitoring of MCCP/SCCPs (international collaboration or development of own capacity) and establish an approach to get priority samples analysed.
- Monitoring of priority matrices such as products, recycling and other matrices of national priority.
- Improvement of inventory by monitoring (Tier III) where important knowledge gaps were identified.
- Monitoring and controlling of releases from exempted processes using MCCPs and assessing the related exposure of human and contamination of the environment.

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## Case study: SCCPs in consumer products in the European Union

Consumer products were monitored for SCCPs in the EU. Following products were contaminated with SCCPs above the UTC limit of 1500 mg/kg in the European market (RAPEX 2017):

- **Toys** like **plastic doll**, **toy doctor set** (stethoscope), **bouncy toy**, stickers for children, rubber knife, **toilet seat for children**;
- **Sports equipment: Beach ball**, **baseball glove**, **Fitness gloves**, Abs trainer, **Yoga mats**, **all-purpose mat**;
- Artificial leather (PVC) wallet, handbags, mobile phone bag, brush case black, toiletry bag, wallet case for smartphones;
- Cables in motor vehicle sidelight, USB-cord, digital thermometer cable, extension lead, kettle cable, game controller (cable), electric kettle (cord), lighting chain (cord);
- Baking ovens and kitchen blenders;
- Other plastic/polymers like steering wheel cover, selfie stick, mobile phone case, rain cover for pushchair, cloche cover, garden equipment;
- **Other products (see Annex 1 SC SCCP inventory guidance).**

Product (2017 survey)	SCCP content mg/kg
Sports equipment: <b>Boxing gloves</b>	<b>4400</b>
Sports equipment: <b>Gym ball</b>	<b>8500</b>
Sports equipment: <b>Yoga mats</b>	<b>8 000 – 69,000</b>
Bathtub pillow	<b>17 000</b>
Electric shaver ( <b>cord</b> )	9800
Hobby/sports equipment: <b>Hot pack</b>	4000
Exercise/sports equipment: <b>tube (handle)</b>	90 000
Speaker ( <b>cord</b> )	10 000
Selfie stick ( <b>cord</b> )	45 700
USB ( <b>cord</b> )	16 000
In-ear headphones ( <b>USB cord</b> )	3000
LED candle ( <b>cord</b> )	13 000
Power <b>cord/cable</b>	26 000
<b>Toy pistol (plastic cord)</b>	7000
<b>Radio controlled car (tyres)</b>	17 000
<b>Bath toy</b>	13 400
<b>Game controller</b>	43 000
<b>Plastic doll</b>	8 600
<b>Babies' sleeping bag (anti-slip knobs)</b>	18 000
<b>Breastfeeding pillow (packaging)</b>	60 000
<b>Handle (cycle parts)</b>	3 500
<b>Hammer (handle)</b>	2 800
<b>Claw hammer (handle)</b>	7000



# SC Guidance on monitoring POPs in products & recycling (update 2026)

Annex 3 of the guidance contains for each POP a full analytical method for instrumental analysis

ANNEX 3 Examples for instrumental analysis ..... 153

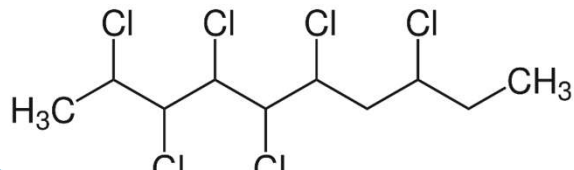
For chlorinated paraffins three analytical methods are described in the guidance:

- A low resolution GC/ECNI-LRMS (electron-capture negative ionization) method which would also be suitable for low- and middle income countries (Prof. Vetter Uni Hohenheim).
- A high resolution GC/HRMS method with „Orbitrap“ (Ref. Laboratory Freiburg).
- The **LC-MS/MS method** of the National Institute for Environmental Studies (Tsukuba, Japan) which allows the monitoring of SCCP, MCCP & LCCP

Annex 3-H1: GC-MS analysis of SCCPs and MCCPs (instrumental setting; chromatogram).....

Annex 3-H2: GC-MS analysis of SCCPs and MCCPs (instrumental setting; chromatogram).....

Annex 3-H3: LC-MS/MS analysis of SCCPs, MCCPs and LCCPs (instrumental setting; chromatogram).....



Guidance on sampling, screening, and analysis of persistent organic pollutants in products and recycling

2026

Secretariat of the Basel, Rotterdam and Stockholm Conventions



## 8. Assessment, management, database of sites potentially contaminated with SCCPs and MCCPs

**Objective: Established assessment and management of potentially SCCPs and MCCPs contaminated sites and securing /remediation to reduce exposure.**

### **Recommended activity options:**

- Develop/update legislation to set criteria for SCCP/MCCP contaminated soils and sediments (within larger frame of setting POPs limits). Develop legislation on liability related to contaminated sites (PPP) (within a general activity on POPs contaminated sites).
- Database and maps of potentially contaminated sites along the life cycle of SCCP/MCCPs (production sites, sites of uses in industry, end of life treatment sites) .
- Prioritization of the sites (risks) for further assessment.
- Securing contaminated sites to reduce/eliminated exposure and potentially remediating sites in an environmentally sound manner.

**Guidance on best available techniques and best environmental practices for the management of sites contaminated with persistent organic pollutants**

February 2025

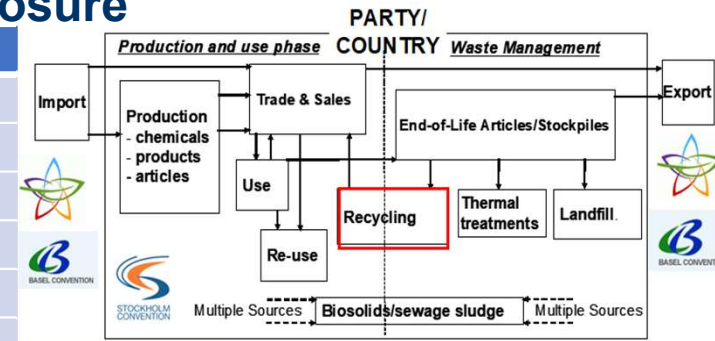




# 8. Assessment, management, database of sites potentially contaminated with SCCPs and MCCPs

**Objective: Established assessment and management of sites potentially contaminated with SCCP/MCCPs and securing /remediation to reduce exposure**

Live cycle stage; Sector	Activities
SCCP/MCCP production	Current and former production sites
	Disposal of waste from SCCP production
	Former water discharge from production sites
Sites where SCCP or MCCP have been used in manufacturing of products and mixtures	Production sites of soft PVC
	Production sites of rubber (using additives)
	Production of paints and coatings
	Production of impregnated textiles and leather
	Production of lubricants and metal working fluids
	Production of SCCPs containing metal working fluids
Use of SCCP/MCCPs containing products	Use of SCCPs containing lubricants
	Application of SCCP containing paints for buildings, bridges, towers and other metal construction and waterproof paints and related removal
	Ship painting and paint removal
	Recycling and disposal of lubricants, MWFs and other SCCP liquids
End-of-life treatment of SCCP/MCCP containing products	Recycling of (soft) PVC, certain rubber belts/products,
	Cable smouldering for copper/e-waste recycling (smelters; open burning)
	Scrapping/breaking of ships
	Open burning of SCCP containing products



Guidance on preparing inventories of short-chain chlorinated paraffins (SCCPs)






















Detailed guidance

2019

Secretariat of the Basel, Rotterdam and Stockholm Conventions

## Guidance on BAT/BEP of POP contaminated site (2025)

The guidance consists of nine modules, an executive summary and a first case study.

Module	Title	English
	Executive Summary and Introduction	 
1	Background on POPs Contaminated Sites	 
2	Principles and Approaches for POPs Contaminated Sites Management and Remediation	 
3	Site Investigation, Assessment and Conceptual Site Model	 
4	Environmental Risk Assessment	 
5	Remediation Technologies and Techniques	 
6	Technology Selection Tool for remedial options to be used in Phase 3 - the Remediation Assessment	 
7	Stakeholder Engagement, Public and Worker Safety and Health	 
8	Contaminated Sites Remediation and Monitoring and Aftercare	 
9	Getting Started: Legislation, Policy, Inventory Development and Financing Remediation	 
10	Case study - Environmental Management Plan Lâm Hoá site, Viet Nam	

**Guidance on best available techniques and best environmental practices for the management of sites contaminated with persistent organic pollutants**

February 2025



# Thank you for your attention ! Questions?

**More Information** <https://www.thegef.org/>; [https://en.wikipedia.org/wiki/Triple\\_planetary\\_crisis](https://en.wikipedia.org/wiki/Triple_planetary_crisis)

**Basel Convention:** [www.basel.int](http://www.basel.int)

**Rotterdam Convention:** [www.pic.int](http://www.pic.int)

**Stockholm Convention:** <http://chm.pops.int/>;

**Montreal Protocol/Vienna Convention:** <http://ozone.unep.org>

**GFC:** <https://www.chemicalsframework.org/> **FAO:** [www.fao.org](http://www.fao.org) **WHO** [www.who.int/](http://www.who.int/)

**Climate Convention** <https://unfccc.int/> **Biodiversity Convention:** <https://www.cbd.int/>

**OECD/IOMC:** <http://www.oecd.org/chemicalsafety/>

**Science:**; <https://www.ipcc.ch/>; <https://www.ipbes.net/>; <https://www.unep.org/isp-cwp>; <https://www.ipcp.ch/>

**Industry:** <http://www.suschem.org/>; <https://icca-chem.org/>; <https://cefic.org/>

**NGO:** [www.ipcp.ch](http://www.ipcp.ch); [www.ipen.org](http://www.ipen.org); [www.ciel.org/](http://www.ciel.org/); [www.ban.org](http://www.ban.org); [www.chemsec.org](http://www.chemsec.org); [www.wecf.org](http://www.wecf.org)

**Better-world-links:** <http://www.betterworldlinks.org/>



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<http://synergies.pops.int/>

**SYNERGIES**  
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and Stockholm conventions



Global Framework  
on Chemicals

**GREEN GROWTH**  
Knowledge Partnership



**United Nations**  
Framework Convention on  
Climate Change



**Convention on  
Biological Diversity**

