

Aquaphor International OU
L.Tolstoi 2A, Sillamae, 40231, Estonia

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TEST REPORT

Test Report No. : **4910367.52** Version 1

Project No. : **4910367.00**

Test Report Date : **2023-10-24**

Job No. : 23-02512
Applicant : Aquaphor International OU
L.Tolstoi 2A, Sillamae, 40231, Estonia
Sample Description : Water treatment filter
Model No. : P82MFPFM/P82MFPSM
Country of Origin : Estonia
Supplier : Aquaphor International OU
Test Requested : 1) European REACH Regulation (EC) No.1907/2006 Annex XVII and
its amendments:
- Entry 23, Cadmium and its compounds
- Entry 50, Polycyclic Aromatic Hydrocarbons (PAHs)
- Entry 51 & 52, Phthalates content
- Entry 63, Lead and its compounds
2) Regulation (EU) No.2019/1021 of POPs and its amendments
- Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)
(SCCP) content
3) Polycyclic Aromatic Hydrocarbons (PAH) according to AfPS GS
2019:01 PAK
Test Method : Please refer to next pages
Sample Received : 2023-10-16
Testing Period : 2023-10-16 to 2023-10-24

Test Results
- following pages -

Resume:

Parameter	Sample Photo:	
		
Cadmium and its compounds	PASS	
PAHs to REACH Annex XVII Entry 50	PASS	
Phthalates to REACH Annex XVII Entry 51 & 52	PASS	
Lead and its compounds	PASS	
Short Chain Chlorinated Paraffins (SCCP)	PASS	
Polycyclic Aromatic Hydrocarbons(PAH) according to AfPS GS 2019:01 PAK	PASS	

Guangzhou, October 24, 2023

Signed for and on behalf of

DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou branch

Chemical & Mechanical



Devin Ai
Laboratory Manager

Attention: Please note that every statement made in this report is only valid for the samples tested and reported herein. This report shall not be reproduced except in full, without the written approval of the testing laboratory.

TESTED COMPONENTS:

- (1) Transparent plastic(body)
- (2) Transparent grey plastic(Liner)
- (3) Grey plastic(Handle)
- (4) Black plastic(Lid)
- (5) White plastic (lid and dashboard connection shaft)
- (6) Transparent plastic with black printing(Cover the housing of the instrument cluster)
- (7) Multicolor paper sticker(Inside the instrument cluster)
- (8) White plastic(Inside the instrument cluster)
- (9) White plastic(Filter element)
- (10) White fabric(filter element)
- (11) Transparent plastic(filter element)
- (12) White/black grain(Filter element)

TEST RESULTS

1) European REACH Regulation (EC) No.1907/2006 Annex XVII and its amendments

Cadmium and its compounds

With reference to EN 1122:2001 Method B. Analysis was performed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Test Item	Result (%)				MDL (%)
	(1)/(2)/(3)	(4)/(5)/(6)	(7)/(8)/(11)	(9)	
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	0.0005

Test Item	Result (%)		MDL (%)
	(10)	(12)	
Cadmium (Cd)	N.D.	N.D.	0.0005

Limit:

Category	Requirement (%)
Substrate: Plastic, metal, brazing filler	0.01
Surface coating / paint on article	0.1
Paint	0.01

Remark:

1. N.D. = Not Detected (below MDL)
2. MDL = Method Detection Limit
3. % = Percentage

Polycyclic Aromatic Hydrocarbons (PAHs)

With reference to AfPS GS 2019:01 PAK (PAH) - Testing and Validation of Polycyclic Aromatic Hydrocarbons (PAHs)

Test Item	CAS No.	Result (mg/kg)				MDL (mg/kg)	Limit (mg/kg)	
		(1)	(2)	(3)	(4)		Consumer product	Toy or childcare product
Benzo[a]pyrene	50-32-8	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5
Benzo[e]pyrene	192-97-2	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5
Benzo[a]anthracene	56-55-3	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5
Chrysene	218-01-9	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5
Benzo[b]fluoranthene	205-99-2	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5
Benzo[j]fluoranthene	205-82-3	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5
Benzo[k]fluoranthene	207-08-9	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5

Test Item	CAS No.	Result (mg/kg)				MDL (mg/kg)	Limit (mg/kg)	
		(1)	(2)	(3)	(4)		Consumer product	Toy or childcare product
Dibenzo[a,h]anthracene	53-70-3	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5

Test Item	CAS No.	Result (mg/kg)				MDL (mg/kg)	Limit (mg/kg)	
		(5)	(6)	(9)	(10)		Consumer product	Toy or childcare product
Benzo[a]pyrene	50-32-8	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5
Benzo[e]pyrene	192-97-2	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5
Benzo[a]anthracene	56-55-3	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5
Chrysene	218-01-9	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5
Benzo[b]fluoranthene	205-99-2	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5
Benzo[j]fluoranthene	205-82-3	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5
Benzo[k]fluoranthene	207-08-9	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5
Dibenzo[a,h]anthracene	53-70-3	N.D.	N.D.	N.D.	N.D.	0.2	1.0	0.5

Test Item	CAS No.	Result (mg/kg)		MDL (mg/kg)	Limit (mg/kg)	
		(11)	(12)		Consumer product	Toy or childcare product
Benzo[a]pyrene	50-32-8	N.D.	N.D.	0.2	1.0	0.5
Benzo[e]pyrene	192-97-2	N.D.	N.D.	0.2	1.0	0.5
Benzo[a]anthracene	56-55-3	N.D.	N.D.	0.2	1.0	0.5
Chrysene	218-01-9	N.D.	N.D.	0.2	1.0	0.5
Benzo[b]fluoranthene	205-99-2	N.D.	N.D.	0.2	1.0	0.5
Benzo[j]fluoranthene	205-82-3	N.D.	N.D.	0.2	1.0	0.5
Benzo[k]fluoranthene	207-08-9	N.D.	N.D.	0.2	1.0	0.5
Dibenzo[a,h]anthracene	53-70-3	N.D.	N.D.	0.2	1.0	0.5

Remark:

1. N.D. = Not Detected (Below MDL)
2. MDL = Method Detection Limit
3. mg/kg = Milligram per kilogram

Phthalates content

With reference to EN 14372: 2004. Analysis was performed by Gas Chromatograph with Mass Spectrometer (GC-MS).

Test Item	Result (%)				MDL (%)	Limit (%)
	(1)/(2)/(3)	(4)/(5)/(6)	(9)	(10)		
Di-2-ethylhexyl Phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	0.003	-
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	0.003	-
Benzylbutyl Phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	0.003	-
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	0.003	-
SUM (DEHP+DBP+BBP+DIBP)	N.D.	N.D.	N.D.	N.D.	-	0.1

Test Item	Result (%)				MDL (%)	Limit (%)
	(1)/(2)/(3)	(4)/(5)/(6)	(9)	(10)		
Diisononyl Phthalate (DINP)	N.D.	N.D.	N.D.	N.D.	0.005	-
Di-n-octyl Phthalate (DNOP)	N.D.	N.D.	N.D.	N.D.	0.003	-
Diisodecyl Phthalate (DIDP)	N.D.	N.D.	N.D.	N.D.	0.005	-
SUM (DINP+DNOP+DIDP)	N.D.	N.D.	N.D.	N.D.	-	0.1

Test Item	Result (%)			MDL (%)	Limit (%)
	(7)	(8)/(11)	(12)		
Di-2-ethylhexyl Phthalate (DEHP)	N.D.	N.D.	N.D.	0.003	-
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.	0.003	-
Benzylbutyl Phthalate (BBP)	N.D.	N.D.	N.D.	0.003	-
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	0.003	-
SUM (DEHP+DBP+BBP+DIBP)	N.D.	N.D.	N.D.	-	0.1

Remark:

1. N.D. = Not Detected (below MDL)
2. MDL = Method Detection Limit
3. % = Percentage

Lead and its compounds

Test method: Microwave digest, analysis was performed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Test Item	Result (%)				MDL (%)	Limit (%)
	(1)/(2)/(3)	(4)/(5)/(6)	(9)	(10)		
Lead (Pb)	N.D.	N.D.	N.D.	N.D.	0.0005	0.05

Remark:

1. N.D. = Not Detected (Below MDL)
2. MDL = Method Detection Limit
3. % = Percentage

2) Regulation (EU) No.2019/1021 of POPs and its amendments

Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) - POPs

With reference to ISO 18219:2015. Analysis was performed by Gas Chromatograph-Mass Spectrometry (GC-MS).

Test Item	Result (%)				MDL	Limit
	(1)/(2)/(3)	(4)/(5)/(6)	(7)	(8)/(11)	(%)	(%)
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	N.D.	N.D.	N.D.	N.D.	0.01	0.15

Test Item	Result (%)			MDL	Limit
	(9)	(10)	(12)	(%)	(%)
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	N.D.	N.D.	N.D.	0.01	0.15

Remark:

1. N.D. = Not Detected (Below MDL)
2. MDL = Method Detection Limit
3. % = Percentage

3) Polycyclic Aromatic Hydrocarbons (PAHs)

With reference to AfPS GS 2019:01 PAK (PAH) - Testing and Validation of Polycyclic Aromatic Hydrocarbons (PAHs)

No.	Test Item	CAS No.	Result (mg/kg)					MDL (mg/kg)
			(1)	(2)	(3)	(4)	(5)	
1	Benzo[a]pyrene	50-32-8	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
2	Benzo[e]pyrene	192-97-2	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
3	Benzo[a]anthracene	56-55-3	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
4	Benzo[b]fluoranthene	205-99-2	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
5	Benzo[j]fluoranthene	205-82-3	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
6	Benzo[k]fluoranthene	207-08-9	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
7	Chrysene	218-01-9	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
8	Dibenzo[a,h]anthracene	53-70-3	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
9	Benzo[g,h,i]perylene	191-24-2	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
10	Indeno[1,2,3-c,d]pyrene	193-39-5	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
11	Phenanthrene	85-01-8	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
12	Pyrene	129-00-0	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
13	Anthracene	120-12-7	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
14	Fluoranthene	206-44-0	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
15	Naphthalene	91-20-3	0.6	0.3	0.9	0.7	N.D.	0.2
Sum of (11)~(14)		--	N.D.	N.D.	N.D.	N.D.	N.D.	--
Sum of 15 PAHs		--	0.6	0.3	0.9	0.7	N.D.	--

No.	Test Item	CAS No.	Result (mg/kg)					MDL (mg/kg)
			(6)	(9)	(10)	(11)	(12)	
1	Benzo[a]pyrene	50-32-8	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
2	Benzo[e]pyrene	192-97-2	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
3	Benzo[a]anthracene	56-55-3	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
4	Benzo[b]fluoranthene	205-99-2	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
5	Benzo[j]fluoranthene	205-82-3	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
6	Benzo[k]fluoranthene	207-08-9	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
7	Chrysene	218-01-9	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
8	Dibenzo[a,h]anthracene	53-70-3	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
9	Benzo[g,h,i]perylene	191-24-2	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
10	Indeno[1,2,3-c,d]pyrene	193-39-5	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
11	Phenanthrene	85-01-8	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
12	Pyrene	129-00-0	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
13	Anthracene	120-12-7	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
14	Fluoranthene	206-44-0	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
15	Naphthalene	91-20-3	N.D.	N.D.	N.D.	N.D.	N.D.	0.2
Sum of (11)~(14)		--	N.D.	N.D.	N.D.	N.D.	N.D.	--
Sum of 15 PAHs		--	N.D.	N.D.	N.D.	N.D.	N.D.	--

Remark:

1. mg/kg = Milligram per kilogram
2. N.D. = Not Detected (Below MDL)
3. MDL = Method Detection Limit
4. Category Assessment = Component (1)/(2)/(4)/(5)/(9)-(12):Category 1 (Consumer-Products)
Component (3):Category 2 (Other Consumer-Products)
Component (6):Category 3 (Other Consumer-Products)

Note:

Product Safety Commission (AfPS): The requirements of PAH testing in the course of GS mark certification.

Parameter	Category 1	Category 2		Category 3	
	Materials intended to be put in the mouth or materials in toys according to Directive 2009/48/ EC or materials in articles for use by children up to 3 years of long-term skin contact (longer than 30s) when used as intended(mg/kg)	Materials not covered in Cat. 1,with long-term skin contact (for longer than 30s) or repeated short-term Skin contact in case of intended or foreseeable use(mg/kg)		Materials that are not in cat. 1 or 2 cases, with short-term Skin contact (up to 30 s) at Proper or predictable Use(mg/kg)	
		Use by children	Other Consumer-Products	Use by children	Other Consumer-Products
Benzo[a]pyrene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[e]pyrene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[a]anthracene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[b]fluoranthene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[j]fluoranthene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[k]fluoranthene	<0.2	<0.2	<0.5	<0.5	<1
Chrysene	<0.2	<0.2	<0.5	<0.5	<1
Dibenzo[a,h]anthracene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[g,h,i]perylene	<0.2	<0.2	<0.5	<0.5	<1
Indeno[1,2,3-c,d]pyrene	<0.2	<0.2	<0.5	<0.5	<1
Phenanthrene	<1 Sum	<5 Sum	<10 Sum	<20 Sum	<50 Sum
Pyrene					
Anthracene					
Fluoranthene					
Naphthalene	<1	<2		<10	
Sum of 15 PAHs	<1	<5	<10	<20	<50

---End of Report---