

Test Report

Customer: JSC "Utenos trikotazas" AB
J. Basanavicius str. 122
28214 Utena
Lithuania

Contact Person: Mrs. Jurgita Stankuniene

Report No.: (25419)343-444598

Report Version: 2*

Date of Reception: 02.10.2019

Report Date: 09.12.2019

Date of Order: 30.09.2019

Sampled By: client

Sample Information

Testing Requirements: Tested according to "ordered" requirements

Sample Description: T-Shirt Greenpeace, col. black (100% CO)

Performance Date: 02.10.2019 - 09.12.2019

No. of workdays: 46

Country of Origin: Lithuania

* first amendment to the analytical report no. (25419)281-444598.

The previous version of this report is invalid.

Submitted Samples

Nr. 1



Summary of Test Results
Tested according to "ordered" requirements

Tests required	Evaluation	Remark
Alkylphenols (AP) & Alkylphenoethoxylates (APEO)	Pass	
Perfluorinated and polyfluorinated compounds (PFC's)	Pass	
Phthalates	Pass	

Changes:

Analyses have been revised.

Please note:

For samples that are marked with ** on the following pages the result was generated from a composite sample (mixed swatch/mixed sample/non separable components).

As the sample cannot be separated/is very difficult to separate, single testing of components has not been conducted. It's possible that single components of the composite sample may fail the requirements in case of individual testing.

Tested Samples

Article No	Sample ID	Sample description
	444598-01	1) Main material black
	444598-02	2) Rubberized print blue on main material**, 3) rubberized neck print grey on main material ** (2 mixed components)
	444598-03	1) Main material black, 2) rubberized print blue on main material**, 3) rubberized neck print grey on main material** (3 mixed components)

Test Results

Tested according to "ordered" requirements

Sample Description:		Lab Reference No:	
1) Main material black		444598-01	
Test Method / Standard: Perfluorinated and polyfluorinated compounds (PFC's): Draft CEN/BT/TS 15968, Methanol extraction 2h 60°C ultra sonic, detection with GC-MS / LC-QQQ / LC-Q-TOF, reporting limit: 0.01 mg/kg / 1 µg/m ² , FTOH's: 0.1 mg/kg / 10 µg/m ²			
Test Location: Parameter has been analyzed at BVCPS laboratory Schwerin.			
Parameter	Limit	Result	Evaluation
Perfluorooctanoic acid (PFOA)	≤ 1 µg / m ²	<1 µg / m ²	Pass
Perfluorooctane sulfonate (PFOS) / Perfluorooctanesulfonyl fluoride (POSF / PFOF)		<1 µg / m ²	No Specification
Perfluorooctane sulfonamide (PFOSA)		<1 µg / m ²	No Specification
N-methylperfluoro-1-octanesulfonamide (N-MeFOSA)		<1 µg / m ²	No Specification
N-ethylperfluoro-1-octanesulfonamide (N-EtFOSA)		<1 µg / m ²	No Specification
2-(N-methylperfluoro-1-octanesulfonamide)-ethanol (N-MeFOSE)		<1 µg / m ²	No Specification
2-(N-ethylperfluoro-1-octanesulfonamide)-ethanol (N-EtFOSE)		<1 µg / m ²	No Specification
Sum of PFOS, PFOSA, POSF, N-MeFOSA, N-EtFOSA, N-MeFOSE, N-EtFOSE	≤ 1 µg / m ²	not detected	Pass
Perfluorooctane sulfonamide (PFOSA)		<0.01 mg/kg	No Specification
N-methylperfluoro-1-octanesulfonamide (N-MeFOSA)		<0.01 mg/kg	No Specification
N-ethylperfluoro-1-octanesulfonamide (N-EtFOSA)		<0.01 mg/kg	No Specification
2-(N-methylperfluoro-1-octanesulfonamide)-ethanol (N-MeFOSE)		<0.01 mg/kg	No Specification
2-(N-ethylperfluoro-1-octanesulfonamide)-ethanol (N-EtFOSE)		<0.01 mg/kg	No Specification
Sum of PFOS, PFOSA, POSF, N-MeFOSA, N-EtFOSA, N-MeFOSE, N-EtFOSE	≤ 0.01 mg/kg	not detected	Pass
Perfluorooctanoic acid (PFOA)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass
Perfluorohexanoic acid (PFHxA)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass
Perfluorobutanoic acid (PFBA)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass
Perfluoroheptanoic acid (PFHpA)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass
Perfluorodecanoic acid (PFDA)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass
Perfluorononanoic acid (PFNA)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass
Perfluorododecanoic acid (PFDoA)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass
Perfluorotridecanoic acid (PFTrA)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass
Perfluorotetradecanoic acid (PFTeA)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass
Perfluoropentanoic acid (PFPeA)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass
Perfluoroundecanoic acid (PFUnA)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass
Perfluorobutanesulfonic acid (PFBS)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass
Perfluorohexanesulfonic acid (PFHxS)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass



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Sample Description:	1) Main material black		Lab Reference No:	444598-01
Test Method / Standard:	Perfluorinated and polyfluorinated compounds (PFC's): Draft CEN/BT/TS 15968, Methanol extraction 2h 60°C ultra sonic, detection with GC-MS / LC-QQQ / LC-Q-TOF, reporting limit: 0.01 mg/kg / 1 µg/m ² , FTOH's: 0.1 mg/kg / 10 µg/m ²			
Test Location:	Parameter has been analyzed at BVCPS laboratory Schwerin.			
Parameter	Limit	Result	Evaluation	
Perfluoro-1-heptanesulfonic acid (PFHpS)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass	
Perfluorodecanesulfonic acid (PFDS)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass	
2-Perfluorobutylethanol (FTOH 4-2)	≤ 0.2 mg/kg	<0.1 mg/kg	Pass	
2-Perfluorohexylethanol (FTOH 6-2)	≤ 0.2 mg/kg	<0.1 mg/kg	Pass	
2-Perfluorooctylethanol (FTOH 8-2)	≤ 0.2 mg/kg	<0.1 mg/kg	Pass	
2-Perfluorodecylethanol (FTOH 10-2)	≤ 0.2 mg/kg	<0.1 mg/kg	Pass	
1H,1H,2H,2H-Perfluorooctylacrylate (6:2 FTA)	≤ 0.2 mg/kg	<0.01 mg/kg	Pass	
1H,1H,2H,2H-Perfluorodecylacrylate (8:2 FTA)	≤ 0.2 mg/kg	<0.01 mg/kg	Pass	
1H,1H,2H,2H-Perfluorododecylacrylate (10:2 FTA)	≤ 0.2 mg/kg	<0.01 mg/kg	Pass	
1H,1H,2H,2H-Perfluorooctanesulphonic acid (1H,1H,2H,2H-PFOS)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass	
perfluoro-3,7-dimethyloctanoate (PF-3,7-DMOA)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass	
2H,2H,3H,3H-Perfluoroundecanoic acid	≤ 0.01 mg/kg	<0.01 mg/kg	Pass	
7H-dodecafluoroheptanoate (HPFHpA)	≤ 0.01 mg/kg	<0.01 mg/kg	Pass	



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Sample Description: 2) Rubberized print blue on main material**, 3) rubberized neck print grey on main material** (2 mixed components)		Lab Reference No: 444598-02	
Test Method / Standard: Phthalates: DIN EN ISO 14389 (modified), extraction with THF/ACN followed by GC-MS and/or LC-MS analysis, reporting limit: 10 mg/kg			
Test Location: Parameter has been analyzed at BVCPS laboratory Schwerin.			
Parameter	Limit	Result	Evaluation
Benzylbutylphthalate (BBP)	≤ 30 mg/kg	<10 mg/kg	Pass
Dibutylphthalate (DBP)	≤ 30 mg/kg	<10 mg/kg	Pass
Diethylphthalate (DEP)	≤ 30 mg/kg	<10 mg/kg	Pass
Dimethylphthalate (DMP)	≤ 30 mg/kg	<10 mg/kg	Pass
Di(2-ethylhexyl)phthalate (DEHP)	≤ 30 mg/kg	<10 mg/kg	Pass
Di(2-methoxyethyl)phthalate (DMEP)	≤ 30 mg/kg	<10 mg/kg	Pass
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	≤ 30 mg/kg	<10 mg/kg	Pass
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP) -> determined as Diundecylphthalate	≤ 30 mg/kg	<10 mg/kg	Pass
Dicyclohexylphthalate (DCHP)	≤ 30 mg/kg	<10 mg/kg	Pass
Di-hexylphthalate, branched and linear (DHxP)	≤ 30 mg/kg	<10 mg/kg	Pass
Di-iso-butylphthalate (DIBP)	≤ 30 mg/kg	<10 mg/kg	Pass
Di-iso-hexylphthalate (DIHxP)	≤ 30 mg/kg	<10 mg/kg	Pass
Di-iso-octylphthalate (DIOP)	≤ 30 mg/kg	<10 mg/kg	Pass
Di-iso-nonylphthalate (DINP)	≤ 30 mg/kg	<10 mg/kg	Pass
Di-iso-decylphthalate (DIDP)	≤ 30 mg/kg	<10 mg/kg	Pass
Di-n-propylphthalate (DPRP)	≤ 30 mg/kg	<10 mg/kg	Pass
Di-n-hexyl phthalate (DnHP)	≤ 30 mg/kg	<10 mg/kg	Pass
Di-n-octylphthalate (DNOP)	≤ 30 mg/kg	<10 mg/kg	Pass
Di-n-nonylphthalate (DNP)	≤ 30 mg/kg	<10 mg/kg	Pass
Di-n-pentylphthalate (DPP)	≤ 30 mg/kg	<10 mg/kg	Pass
Di-iso-pentylphthalate (DiIPP)	≤ 30 mg/kg	<10 mg/kg	Pass
n-Pentyl-iso-pentylphthalate (PiPP)	≤ 30 mg/kg	<10 mg/kg	Pass
1,2-Benzenedicarboxylic acid, Di-C6-8-dipentylester, branched and linear	≤ 30 mg/kg	<10 mg/kg	Pass
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters	≤ 30 mg/kg	<10 mg/kg	Pass
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl di esters with ≥0.3% of dihexylphthalate (EC 201-559-5)	≤ 30 mg/kg	<10 mg/kg	Pass
Sum of listed Phthalates	≤ 250 mg/kg	not detected	Pass

Sample Description: 1) Main material black, 2) rubberized print blue on main material**, 3) rubberized neck print grey on main material** (3 mixed components)		Lab Reference No: 444598-03	
Test Method / Standard: Alkylphenols (AP) & Alkylphenoethoxylates (APEO): Alkylphenols: BVCPS inhouse method, reporting limit: 1 mg/kg Alkylphenoethoxylates: DIN EN ISO 18254, reporting limit: 1 mg/kg			
Test Location: Parameter has been analyzed at BVCPS laboratory Schwerin.			
Parameter	Limit	Result	Evaluation
Nonylphenols (NP)		<1 mg/kg	No Specification
Octylphenols (OP)		<1 mg/kg	No Specification
Heptylphenols (HpP)		<1 mg/kg	No Specification
Pentylphenols (PeP)		<1 mg/kg	No Specification
Nonylphenoethoxylates (NPEO)		<1 mg/kg	No Specification
Octylphenoethoxylates (OPEO)		<1 mg/kg	No Specification
Sum of Alkylphenols	≤ 2 mg/kg	not detected	Pass
Sum of Alkylphenols & Alkylphenoethoxylates	≤ 2 mg/kg	not detected	Pass

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The testing of mixed samples is carried out at the customer's explicit request and may imply a deviation from the testing standard. Please note the following: results for mixed samples that are below the limit may exceed the limit if the samples contained in the mixed sample are tested individually. In these cases separate testing of the samples is recommended.

Performance Date: 02.10.2019 - 09.12.2019

Total Run Time: 46



Anika Schabram
Analytical Testing Specialist

No results printed beyond this point in the report

Detailed Method Descriptions

Analysis / Test: Alkylphenols (AP) & Alkylphenoethoxylates (APEO)

Alkylphenols: BVCPs inhouse method, ultrasound extraction with Methanol (plastics THF/Methanol), determination using GC-MS, reporting limit: 1 mg/kg

Nonylphenoethoxylates: DIN EN ISO 18254, ultrasound extraction with methanol (plastics THF/Methanol), determination using LC/MS, quantification based on Igepal CO-630 (1-20 EO units); only compounds with 1-20 ethoxylate units are quantified, reporting limit: 1 mg/kg

Octylphenoethoxylates: DIN EN ISO 18254, ultrasound extraction with methanol (plastics THF/Methanol), determination using LC/MS, quantification based on Triton X 100 (1-20 EO units); only compounds with 1-20 ethoxylate units are quantified, reporting limit: 1 mg/kg



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Parameters & CAS No.

Alkylphenols (AP) & Alkylphenoethoxylates (APEO)	(CAS No.)
Octylphenols (OP) (140-66-9)	
Nonylphenoethoxylates (NPEO) (68412-54-4)	
Nonylphenols (NP) (84852-15-3)	
Octylphenoethoxylates (OPEO) (9036-19-5)	
Heptylphenols (HpP) (Various)	
Pentylphenols (PeP) (Various.)	

Perfluorinated and polyfluorinated compounds (PFC's)	(CAS No.)
7H-dodecafluoroheptanoate (HPFHpA) (1546-95-8)	
2-(N-ethylperfluoro-1-octanesulfonamide)-ethanol (N-EtFOSE) (1691-99-2)	
perfluoro-3,7-dimethyloctanoate (PF-3,7-DMOA) (172155-07-6)	
1H,1H,2H,2H-Perfluorooctylacrylate (6:2 FTA) (17527-29-6)	
Perfluorooctane sulfonate (PFOS) / Perfluorooctanesulfonyl fluoride (POSF / PFOF) (1763-23-1, 56773-72-3, 307-35-7)	
1H,1H,2H,2H-Perfluorododecylacrylate (10:2 FTA) (17741-60-5)	
2-Perfluorobutylethanol (FTOH 4-2) (2043-47-2)	
Perfluoroundecanoic acid (PFUnA) (2058-94-8)	
2-(N-methylperfluoro-1-octanesulfonamide)-ethanol (N-MeFOSE) (24448-09-7)	
Perfluoropentanoic acid (PFPeA) (2706-90-3)	
1H,1H,2H,2H-Perfluorooctanesulphonic acid (1H,1H,2H,2H-PFOS) (27619-97-2)	
1H,1H,2H,2H-Perfluorodecylacrylate (8:2 FTA) (27905-45-9)	
Perfluorohexanoic acid (PFHxA) (307-24-4)	
Perfluorododecanoic acid (PFDoA) (307-55-1)	
N-methylperfluoro-1-octanesulfonamide (N-MeFOSA) (31506-32-8)	
Perfluorooctanoic acid (PFOA) (335-67-1)	
Perfluorodecanoic acid (PFDA) (335-76-2)	
Perfluorodecanesulfonic acid (PFDS) (335-77-3, 2806-15-7)	
2H,2H,3H,3H-Perfluoroundecanoic acid (34598-33-9)	
Perfluorohexanesulfonic acid (PFHxS) (355-46-4, 3871-99-6)	
Perfluorobutanoic acid (PFBA) (375-22-4)	
Perfluorobutanesulfonic acid (PFBS) (375-73-5, 29420-49-3)	
Perfluoroheptanoic acid (PFHpA) (375-85-9)	
Perfluorononanoic acid (PFNA) (375-95-1)	
Perfluorotetradecanoic acid (PFTeA) (376-06-7)	
N-ethylperfluoro-1-octanesulfonamide (N-EtFOSA) (4151-50-2)	
Perfluoro-1-heptanesulfonic acid (PFHpS) (60270-55-5, 375-92-8)	

Phthalates	(CAS No.)
2-Perfluorohexylethanol (FTOH 6-2) (647-42-7)	
2-Perfluorooctylethanol (FTOH 8-2) (678-39-7)	
Perfluorotridecanoic acid (PFTrA) (72629-94-8)	
Perfluorooctane sulfonamide (PFOSA) (754-91-6)	
2-Perfluorodecylethanol (FTOH 10-2) (865-86-1)	
Di(2-ethylhexyl)phthalate (DEHP) (117-81-7)	
Di(2-methoxyethyl)phthalate (DMEP) (117-82-8)	
Di-n-octylphthalate (DNOP) (117-84-0)	
Dimethylphthalate (DMP) (131-11-3)	
Di-n-propylphthalate (DPRP) (131-16-8)	
Di-n-pentylphthalate (DPP) (131-18-0)	
Di-iso-decylphthalate (DIDP) (26761-40-0, 68515-49-1)	
Di-iso-octylphthalate (DIOP) (27554-26-3)	
Di-iso-nonylphthalate (DINP) (28553-12-0, 68515-48-0)	
Di-iso-pentylphthalate (DiPP) (605-50-5)	
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP) -> determined as Diundecylphthalate (68515-42-4)	
Di-hexylphthalate, branched and linear (DHxP) (68515-50-4)	
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters (68515-51-5)	
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl di esters with ≥0.3% of dihexylphthalate (EC 201-559-5) (68648-93-1)	
Di-iso-hexylphthalate (DIHxP) (71850-09-4)	
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP) (71888-89-6)	
n-Pentyl-iso-pentylphthalate (PiPP) (776297-69-9)	
Dicyclohexylphthalate (DCHP) (84-61-7)	
Diethylphthalate (DEP) (84-66-2)	
Di-iso-butylphthalate (DIBP) (84-69-5)	
Dibutylphthalate (DBP) (84-74-2)	
Di-n-hexyl phthalate (DnHP) (84-75-3)	
Di-n-nonylphthalate (DNP) (84-76-4)	
1,2-Benzenedicarboxylic acid, Di-C6-8-dipentylester, branched and linear (84777-06-0)	
Benzylbutylphthalate (BBP) (85-68-7)	