

**Inkcups Now Corporation** 310 Andover St Danvers, Massachusetts 01923 **United States** 

Hohenstein Textile Testing Institute GmbH & Co. KG Schloss Hohenstein 74357 Bönnigheim Deutschland

# Report no. 22.0004305

from 30/08/2022

Your Contact Person	Joseph Shairs +1 97864 68980	Customer Reference
Order Date	24/05/2022	Certificate number 22.0.18841
Period of Testing	11/08/2022 - 19/08/2022	

Aim of Test	ECO PASSPORT by OEKO-TEX <sup>®</sup> Edition 01.2022
Testing Material	Coating agents and additives
Sampling	The test object was sent to Hohenstein by the client.

Our Contact Person	Elana Frosk (E.Frosk@hohenstein.com)
Report Approval	This document has been created digitally and is valid without a signature. It has been approved by
	<b>Antonia Meyer, B. Sc.</b> (Produktspezialist/-in / Product Specialist OEKO-TEX®)





## **Summary**



## **Testing Material**

1 1000HNX Hardener; Medium viscous liquid	
Grouping of chemicals	3.2.1 Solvent based
Optical property	Transparent
Colour	Colourless
Batch number	292L10



## **Test Overview**

1 1000HNX Hardener; Medium viscous liquid	
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## List of abbreviations

n.d. = not detectable LOQ = Limit of quantitation

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## **Detail Results**

### Formaldehyde

The following results were evaluated against the limit values (LV): Threshold values according to ECO PASSPORT by OEKO-TEX®, 01.2022

	<b>1</b> [mg/kg]		<b>LOQ</b> [mg/kg]	<b>LV</b> [mg/kg]
Formaldehyde	n.d.		< 20	< 200
		Additional details for this test		

#### Parameter hints:



## Total content of (heavy) metals

The following results were evaluated against the limit values (LV): Threshold values according to ECO PASSPORT by OEKO-TEX®, 01.2022

	<b>1</b> [mg/kg]	<b>LOQ</b> [mg/kg]	<b>LV</b> [mg/kg]
Antimony	< 5	< 5	< 50
Arsenic	< 5	< 5	< 50
Lead	< 5	< 5	< 90
Cadmium	< 5	< 5	< 20
Chromium	< 5	< 5	< 100
Cobalt	< 5	< 5	< 200
Copper	< 5	< 5	< 250
Nickel	< 5	< 5	< 200
Mercury	< 0.1	< 0.1	< 4.0
Barium	< 5	< 5	< 100
Manganese	< 5	< 5	< 500
Selenium	< 5	< 5	< 20
Zinc	9	< 5	< 1500
		Additional details for this test	

#### **Parameter hints:**

Testing method according to ECO PASSPORT by OEKO-TEX® Threshold values for Cr, Co, Cu, Ni, Ba, Mn, Se and Zn do not apply to products containing one of the metals as an inherent part of the molecular structure, (e.g. metal-complex colourants, the double salts of certain cationic dyes or extenders such as barium sulfate).



### **Phthalates**

The following results were evaluated against the limit values (LV): Threshold values according to ECO PASSPORT by OEKO-TEX®, 01.2022

	<b>1</b> [mg/kg]	<b>LOQ</b> [mg/kg]	<b>LV</b> [mg/kg]
Benzyl butyl phthalate (BBP)	n.d.	< 50	-
Dibutyl phthalate (DBP)	n.d.	< 50	-
Diethyl phthalate (DEP)	n.d.	< 50	-
Dimethyl phthalate (DMP)	n.d.	< 50	-
Di-(2-ethylhexyl)phthalate (DEHP)	n.d.	< 50	-
Di-(2-methoxyethyl)phthalate (DMEP)	n.d.	< 50	-
Di-C6-8 branched alkylphthalates, C7 rich (DIHP)	n.d.	< 50	_
Di-cyclohexyl phthalate (DCHP)	n.d.	< 50	-
Dihexylphthalates, branched and linear (DHxP)	n.d.	-	-
Di-iso-butyl phthalate (DIBP)	n.d.	< 50	-
Di-iso-hexyl phthalate (DIHxP)	n.d.	< 50	-
Di-iso-octyl phthalate (DIOP)	n.d.	< 50	-
Di-iso-nonyl phthalate (DINP)	n.d.	< 50	-
Di-iso-decyl phthalate (DIDP)	n.d.	< 50	-
Di-n-propyl phthalate (DPrP)	n.d.	< 50	-
Di-n-hexyl phthalate (DHP)	n.d.	< 50	-
Di-n-octyl phthalate (DNOP)	n.d.	< 50	-
Di-n-nonyl phthalate (DNP)	n.d.	< 50	-
Di-n-pentyl phthalate	n.d.	< 50	-
Di-iso-pentyl phthalate	n.d.	< 50	-
Di-pentylphthalates (n-, iso-, or mixed) (DPP)	n.d.	-	-
n-Pentyl-iso-pentyl phthalate (nPIP)	n.d.	< 50	-
Sum phthalates	n.d.	-	< 250
Di-n-undecyl phthalate (DUP)	n.d.	< 50	-
	Additional details for this test		

#### **Parameter hints:**

Testing method according to ECO PASSPORT by OEKO-TEX® Di-C7-11-branched and linear alkylphthalates (DHNUP) are determined by sum of corresponding phthalates. 1,2-Benzenedicarboxylic acid, di-C6-10 alkyl esters are determined by sum of corresponding phthalates. 1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters are determined by sum of corresponding phthalates.



**Result value details: Di-n-undecyl phthalate (DUP)** Di-n-undecyl phthalate (DUP) has no requirements for ECO PASSPORT by OEKO-TEX®.



## Organic tin compounds

The following results were evaluated against the limit values (LV): Threshold values according to ECO PASSPORT by OEKO-TEX®, 01.2022

	<b>1</b> [mg/kg]		<b>LOQ</b> [mg/kg]	<b>LV</b> [mg/kg]
Monomethyltin (MMT)	n.d.		< 0.40	< 5.00
Monobutyltin (MBT)	n.d.		< 0.40	< 5.00
Monooctyltin (MOT)	n.d.		< 0.40	< 5.00
Monophenyltin (MPhT)	n.d.		< 0.40	< 5.00
Dimethyltin (DMT)	n.d.		< 0.40	< 5.00
Dipropyltin (DPT)	n.d.		< 0.40	< 5.00
Dibutyltin (DBT)	n.d.		< 0.40	< 5.00
Dioctyltin (DOT)	n.d.		< 0.40	< 5.00
Diphenyltin (DPhT)	n.d.		< 0.40	< 5.00
Trimethyltin (TMT)	n.d.		< 0.40	< 5.00
Tripropyltin (TPT)	n.d.		< 0.40	< 1.00
Tributyltin (TBT)	n.d.		< 0.40	< 5.00
Trioctyltin (TOT)	n.d.		< 0.40	< 5.00
Triphenyltin (TPhT)	n.d.		< 0.40	< 5.00
Tricyclohexyltin (TCyHT)	n.d.		< 0.40	< 1.00
Tetraethyltin (TeET)	n.d.		< 0.40	< 1.00
Tetrabutyltin (TeBT)	n.d.		< 0.40	< 1.00
Tetraoctyltin (TeOT)	n.d.		< 0.40	< 1.00
		Additional details for this test		

#### **Parameter hints:**



### **Bisphenols**

The following results were evaluated against the limit values (LV): Threshold values according to ECO PASSPORT by OEKO-TEX®, 01.2022

	<b>1</b> [mg/kg]		<b>LOQ</b> [mg/kg]	<b>LV</b> [mg/kg]
Bisphenol A	n.d.		< 20	< 100
Bisphenol B	n.d.		< 20	< 1000
Bisphenol F	n.d.		< 20	-
Bisphenol S	n.d.		< 20	-
Bisphenol AF	n.d.		< 20	-
		Additional details for this test		

#### **Parameter hints:**

Testing method according to ECO PASSPORT by OEKO-TEX®

#### **Result value details:**

#### **Bisphenol F**

Is under observation and the result is provided for information but presently not regulated indeed.

#### **Bisphenol S**

Is under observation and the result is provided for information but presently not regulated indeed.

#### **Bisphenol AF**

Is under observation and the result is provided for information but presently not regulated indeed.



## **Chlorinated benzenes and toluenes**

The following results were evaluated against the limit values (LV): Threshold values according to ECO PASSPORT by OEKO-TEX®, 01.2022

	<b>1</b> [mg/kg]	<b>LOQ</b> [mg/kg]	<b>LV</b> [mg/kg]
Chlorobenzene	n.d.	< 1.0	-
1,2-Dichlorobenzene	n.d.	< 1.0	-
1,3-Dichlorobenzene	n.d.	< 1.0	-
1,4-Dichlorobenzene	n.d.	< 1.0	-
1,2,3-Trichlorobenzene	n.d.	< 1.0	-
1,2,4-Trichlorobenzene	n.d.	< 1.0	-
1,3,5-Trichlorobenzene	n.d.	< 1.0	-
1,2,3,4-Tetrachlorobenzene	n.d.	< 1.0	-
1,2,3,5-Tetrachlorobenzene	n.d.	< 1.0	-
1,2,4,5-Tetrachlorobenzene	n.d.	< 1.0	-
Pentachlorobenzene	n.d.	< 1.0	-
Hexachlorobenzene	n.d.	< 1.0	-
2-Chlorotoluene	n.d.	< 1.0	-
3-Chlorotoluene	n.d.	< 1.0	-
4-Chlorotoluene	n.d.	< 1.0	-
a-Chlorotoluene	n.d.	< 1.0	-
2,3-/3,4-Dichlorotoluene	n.d.	< 1.0	-
2,4-Dichlorotoluene	n.d.	< 1.0	-
2,5-/2,6-Dichlorotoluene	n.d.	< 1.0	-
3,5-Dichlorotoluene	n.d.	< 1.0	-
a,a-Dichlorotoluene	n.d.	< 1.0	-
2,3,4-Trichlorotoluene	n.d.	< 1.0	-
2,3,5-/2,4,5-Trichlorotoluene	n.d.	< 1.0	-
2,3,6-Trichlorotoluene	n.d.	< 1.0	-
2,4,6-Trichlorotoluene	n.d.	< 1.0	_
3,4,5-Trichlorotoluene	n.d.	< 1.0	_
a,a,a-Trichlorotoluene	n.d.	< 1.0	-
a,2,4-Trichlorotoluene	n.d.	< 1.0	-



	<b>1</b> [mg/kg]	<b>LOQ</b> [mg/kg]	<b>LV</b> [mg/kg]
a,2,6-Trichlorotoluene	n.d.	< 1.0	-
a,3,4-Trichlorotoluene	n.d.	< 1.0	-
2,3,4,5-Tetrachlorotoluene	n.d.	< 1.0	-
2,3,4,6-Tetrachlorotoluene	n.d.	< 1.0	-
2,3,5,6-Tetrachlorotoluene	n.d.	< 1.0	-
a,a,a,2-Tetrachlorotoluene	n.d.	< 1.0	-
a,a,a,4-Tetrachlorotoluene	n.d.	< 1.0	-
a,a,2,6-Tetrachlorotoluene	n.d.	< 1.0	-
Pentachlorotoluene	n.d.	< 1.0	-
Sum	n.d.	-	< 10.0

Additional details for this test

#### **Parameter hints:**

Testing method according to ECO PASSPORT by OEKO-TEX®

#### **Result value details:**

#### 2,3-/3,4-Dichlorotoluene

2,3-Dichlorotoluene and 3,4-Dichlorotoluene are not analytically separable, so that the determined value for both substances must be given combined.

#### 2,5-/2,6-Dichlorotoluene

2,5-Dichlorotoluene and 2,6-Dichlorotoluene are not analytically separable, so that the determined value for both substances must be given combined.

#### 2,3,5-/2,4,5-Trichlorotoluene

2,4,5-Trichlorotoluene und 2,3,5-Trichlorotoluene are not analytically separable, so that the determined value for both substances must be given combined.



## **Solvent residues**

The following results were evaluated against the limit values (LV): Threshold values according to ECO PASSPORT by OEKO-TEX®, 01.2022

	<b>1</b> [%]	<b>LOQ</b> [%]	<b>LV</b> [%]
1-Methyl-2-pyrrolidone (NMP)	n.d.	< 0.010	< 0.050
N,N-Dimethylacetamide (DMAc)	n.d.	< 0.010	< 0.050
N,N-Dimethylformamide (DMF)	n.d.	< 0.010	< 0.050
Formamide	n.d.	< 0.010	< 0.020

Additional details for this test

#### Parameter hints:



## Alkylphenols and alkylphenolethoxylates

The following results were evaluated against the limit values (LV): Threshold values according to ECO PASSPORT by OEKO-TEX®, 01.2022

	<b>1</b> [mg/kg]	<b>LOQ</b> [mg/kg]	<b>LV</b> [mg/kg]
4-tert-Butylphenol (BP)	n.d.	< 20.0	-
Pentylphenol (PeP)	n.d.	< 20.0	-
Heptylphenol(HpP)	n.d.	< 20.0	-
Octylphenol (OP)	n.d.	< 20.0	-
Nonylphenol (NP)	n.d.	< 20.0	-
Octylphenolethoxylates (OP(EO))	n.d.	< 20.0	-
Nonylphenolethoxylates (NP(EO))	n.d.	< 20.0	-
Sum BP, PeP, HpP, OP, NP	n.d.	-	< 50.0
Sum BP, PeP, HpP, OP, NP, OP(EO), NP(EO)	n.d.	-	< 250.0
		and details for this toot	

Additional details for this test

#### Parameter hints:



## Per- and polyfluorinated compounds

The following results were evaluated against the limit values (LV): Threshold values according to ECO PASSPORT by OEKO-TEX®, 01.2022

	<b>1</b> [mg/kg]	<b>LOQ</b> [mg/kg]	<b>LV</b> [mg/kg]
Perfluorooctane sulfonic acid and sulfonates (PFOS)	n.d.	< 0.010	< 0.250
Perfluorooctane sulfonamide (PFOSA)	n.d.	< 0.010	< 0.250
N-Methyl perfluorooctane sulfonamide (N-Me- FOSA)	n.d.	< 0.010	< 0.250
N-Ethyl perfluorooctane sulfonamide (N-Et- FOSA)	n.d.	< 0.010	< 0.250
Perfluoroheptanoic acid and salts (PFHpA)	n.d.	< 0.010	< 0.250
Perfluorooctanoic acid and salts (PFOA)	n.d.	< 0.010	< 0.025
Perfluorononanoic acid and salts (PFNA)	n.d.	< 0.010	< 0.250
Perfluorodecanoic acid and salts (PFDA)	n.d.	< 0.010	< 0.250
Henicosafluoroundecanoic acid and salts (PFUdA)	n.d.	< 0.010	< 0.250
Tricosafluorododecanoic acid and salts (PFDoA)	0.016	< 0.010	< 0.250
Pentacosafluorotridecananoic acid and salts (PFTrDA)	n.d.	< 0.010	< 0.250
Heptacosafluorotetradecanoic acid and salts (PFTeDA)	n.d.	< 0.010	< 0.250
Perfluorobutanoic acid and salts (PFBA)	n.d.	< 0.010	< 0.250
Perfluoropentanoic acid and salts (PFPeA)	n.d.	< 0.010	< 0.250
Perfluorohexanoic acid and salts (PFHxA)	n.d.	< 0.010	< 0.250
Perfluoro(3,7-dimethyloctanoic acid) and salts (PF-3,7-DMOA)	n.d.	< 0.010	< 0.250
Perfluorobutane sulfonic acid and salts (PFBS)	n.d.	< 0.010	< 0.250
Perfluorohexane sulfonic acid and salts (PFHxS)	n.d.	< 0.010	< 0.250
Perfluoroheptane sulfonic acid and salts (PFHpS)	n.d.	< 0.010	< 0.250
Henicosafluorodecane sulfonic acid and salts (PFDS)	n.d.	< 0.010	< 0.250
7H-Perfluoro heptanoic acid and salts (7HPFHpA)	n.d.	< 0.010	< 0.250
2H,2H,3H,3H-Perfluoroundecanoic acid and salts (4HPFUnA)	n.d.	< 0.010	< 0.250



	<b>1</b> [mg/kg]	<b>LOQ</b> [mg/kg]	<b>LV</b> [mg/kg]
1H,1H,2H,2H-Perfluorooctane sulfonic acid and salts (6:2 FTS)	n.d.	< 0.010	< 0.250
1H,1H,2H,2H-Perfluorodecane sulfonic acid and salts (8:2 FTS)	n.d.	< 0.010	_
Sum PFOA related substances	n.d.	-	< 1.000

Additional details for this test

#### **Parameter hints:**

Testing method according to ECO PASSPORT by OEKO-TEX® Perfluorooctane sulfonfluoride (PFOSF / POSF) determined as Perfluorooctane sulfonic acid and sulfonates (PFOS). N-Methylperfluoroctansulfonamid ethanol (N-Me-FOSE), N-Ethylperfluoroctansulfonamid ethanol (N-Et-FOSE), 1H,1H,2H,2H-Perfluor-1-hexanol (4:2 FTOH), 1H,1H,2H,2H-Perfluor-1-octanol (6:2 FTOH), 1H,1H,2H,2H-Perfluor-1-decanol (8:2 FTOH), 1H,1H,2H,2H-Perfluor-1-dodecanol (10:2 FTOH), 1H,1H,2H,2H-Perfluorotyl acrylat (6:2 FTA), 1H,1H,2H,2H-Perfluordecyl acrylat (8:2 FTA), 1H,1H,2H,2H-Perfluordodecyl acrylat (10:2 FTA), 1H,1H,2H,2H-Perfluordodecyl ac

#### **Result value details:**

#### Sum PFOA related substances

Any other substance, which can degrade to PFOA, including substances (also salts and polymers) having linear or branched perfluoroheptyl derivatives with the formula (C7F15)C as a structural element. Except those derivatives with the formular C8F17-X, where X=F, Cl, Br and fluoropolymers that are covered by CF3[CF2]n-R', where R'=any group, n>16 and perfluoroalkyl carboxylic acids (including their salts, esters, halides and anhydrides) with  $\ge$  8 perfluorinated carbons. Also excluded are perfluoroalkane sulfonic acids and perfluoro phosphonic acids (including their salts, esters, halides and anhydrides) with  $\ge$  9 perfluorinated carbons or, perfluorooctanesulfonic acid and its derivatives (PFOS), which are listed in the Appendix I Part A of the regulation VO (EU) 2019/1021



### **Siloxanes**

The following results were evaluated against the limit values (LV): Threshold values according to ECO PASSPORT by OEKO-TEX®, 01.2022

	<b>1</b> [%]	LO [%	<b>Q</b> 6]	<b>LV</b> [%]
Octamethylcyclotetrasiloxane (D4)	n.d.	< 0.0	010 <	0.100
Decamethylcyclopentasiloxane (D5)	n.d.	< 0.0	010 <	0.100
Dodecamethylcyclohexasiloxane (D6)	n.d.	< 0.0	010 <	0.100

Additional details for this test

#### Parameter hints:



## Chlorinated solvents, volatile organic compounds and glycols

The following results were evaluated against the limit values (LV): Threshold values according to ECO PASSPORT by OEKO-TEX®, 01.2022

	<b>1</b> [mg/kg]	<b>LOQ</b> [mg/kg]	<b>LV</b> [mg/kg]
Dichloromethane	n.d.	< 4.0	< 5.0
Trichloromethane	n.d.	< 4.0	< 10.0
Tetrachloromethane	n.d.	< 4.0	< 10.0
1,1-Dichloroethane	n.d.	< 4.0	< 10.0
1,2-Dichloroethane	n.d.	< 4.0	< 5.0
1,1,1-Trichloroethane	n.d.	< 4.0	< 10.0
1,1,2-Trichloroethane	n.d.	< 4.0	< 10.0
1,1,1,2-Tetrachloroethane	n.d.	< 4.0	< 10.0
1,1,2,2-Tetrachloroethane	n.d.	< 4.0	< 10.0
Pentachloroethane	n.d.	< 4.0	< 10.0
1,1-Dichloroethylene	n.d.	< 4.0	< 10.0
cis-1,2-Dichloroethylene	n.d.	< 4.0	-
trans-1,2-Dichloroethylene	n.d.	< 4.0	-
Sum 1,2-Dichloroethylene	n.d.	-	< 10.0
Trichloroethylene	n.d.	< 4.0	< 10.0
Tetra(per)chloroethylene	n.d.	< 4.0	< 5.0
Sum of the 14 chlorinated solvents	n.d.	-	< 50.0
Methylethylketone	n.d.	< 40.0	< 100.0
Ethylbenzene	n.d.	< 4.0	< 100.0
m-/p-Xylene	n.d.	< 8.0	-
o-Xylene	n.d.	< 4.0	-
Sum Xylene	n.d.	-	< 100.0
Cyclohexanone	n.d.	< 40.0	< 100.0
2-Ethoxyethylacetate	n.d.	< 40.0	< 50.0
1,2,3-Trichloropropane	n.d.	< 40.0	< 100.0
Acetophenone	n.d.	< 4.0	< 100.0
2-Phenyl-2-propanole	n.d.	< 4.0	< 100.0
Bis(2-methoxyethyl) ether	n.d.	< 40.0	< 50.0



	<b>1</b> [mg/kg]	<b>LOQ</b> [mg/kg]	<b>LV</b> [mg/kg]
Styrene	n.d.	< 4.0	< 100.0
Benzene	n.d.	< 4.0	< 10.0
Toluene	n.d.	< 4.0	< 100.0
2-Ethoxyethanol	n.d.	< 40.0	< 50.0
Ethylene glycol dimethyl ether	n.d.	< 8.0	< 50.0
Methylglycol	n.d.	< 8.0	< 50.0
2-Methoxyethylacetate	n.d.	< 40.0	< 50.0
2-Methoxypropylacetate	n.d.	< 40.0	< 50.0
Triethylene glycol dimethyl ether	n.d.	< 40.0	< 50.0
o-Cresol	n.d.	< 20.0	< 100.0
m-/p-Cresol	n.d.	< 40.0	< 100.0

Additional details for this test

#### Parameter hints:

Testing method according to ECO PASSPORT by OEKO-TEX®

#### **Result value details:**

#### m-/p-Cresol

m-cresol and p-cresol have not been separated analytically, so that the determined value for these substances is given combined.