

Test Report No. 66.405.20.2982.01
Dated 2020-05-08



Applicant : Putian sisen Technology CO.,Ltd.
Address : 266 Beichuan Road,Xitianwei Town,Licheng District,Putian City,Fujian Province. China
Contact Person : lin yan long

Sample Description : Non MediCal Protective Mask
Colour : White
Style No : aibana 001/ S018
Lot No. : 202004
Order No : SO18
Fiber Content : 35%Non-Woven fabric, 35%-Mrlt blown 30% Hot Air Cotton
Manufacturer / Supplier : -
Buyer : -
Country of Origin : 266 Beichuan Road,Xitianwei Town,Licheng District,Putian City,Fujian Province.China
Country of Destination : -
Season : -d

Sample Received Date : 2020-05-06
Date of Testing : 2020-05-06 to 2020-05-08

Sample Submitted : The sample(s) was (were) submitted by applicant and identified.

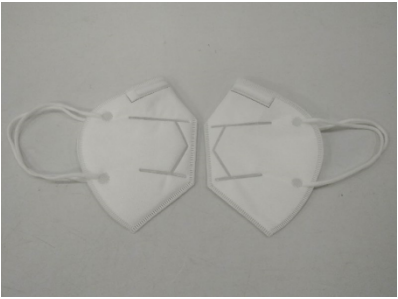
Test Result(s) : Refer to the Section 3

Restricted Substance List (RSL) test conclusion(s) is/are based on : REACH Regulation (EC) No. 1907/2006 Annex XVII Restrictions On The Manufacture, Placing On The Market And Use Of Certain Dangerous Substances, Mixtures And Articles;
REGULATION (EU) 2019/1021 on Persistent Organic Pollutants, Annex I

SVHC Examination Purpose : Analysis of the 205 substances of very high concern (SVHC) on the Candidate List for authorization, concerning Regulation (EC) No. 1907/2006 as published on the European Chemicals Agency (ECHA) website in October 2008, January 2010, March 2010, June 2010, December 2010, June 2011, December 2011, June 2012, December 2012, June 2013, December 2013 ,June 2014, December 2014, June 2015, December 2015, June 2016, January 2017, July 2017, January 2018,June 2018, January 2019, July 2019 and January 2020



1. Description of the test subject:

Sample	Description	Photo
001	White KN95 face mask	
	White nonwoven fabric (upper & lining)	
	White nonwoven fabric (interlining)	
	White melt-blown fabric (interlining)	
	White fabric rope (ear hook)	
	White plastic strip (nasal splint)	
	Silver metal wire of plastic strip (nasal splint)	
	Grey foam (nasal splint)	



Remark: The result relates only to the items tested.

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Laboratory:
TÜV SÜD Certification and Testing
(China) Co., Ltd.,
Xiamen Branch
Form No.: TC_XMN_F_24.04 E
Rev: A/0
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2. Conclusion:

2.1 Restricted Substance List Test		
No.	Test Parameter(s)	Conclusion*
(1)	Total Cadmium	Pass
(2)	Total Lead	Pass
(3)	Polycyclic Aromatic Hydrocarbons (PAH)	Pass
(4)	Phthalates	Pass
(5)	Formaldehyde	Pass
(6)	PCP	Pass
(7)	Dimethylfumarate (DMFU)	Pass
(8)	NPEO	Pass
(9)	Organotin Compounds	Pass
(10)	Short-chain Chlorinated paraffins (SCCPs)	Pass
(11)	Extractable heavy metals	Pass
(12)	Chlororganic Carriers	Pass
(13)	Solvents	Pass
(14)	Quinoline	Pass
(15)	VOCs-Benzene	Pass

2.2 SVHC Test
According to the specified scope and analytical techniques, the concentration of each of the 205 SVHC is <0.1% (w/w) in the submitted sample(s).
Or
According to the specified scope and analytical techniques, the following SVHC(s) is detected in the submitted samples at > 0.1% (w/w)
(1).....
(2).....

Note: Pass= Meet Requirement Fail= Below Requirement
Preliminary Fail (separate tests are recommended)
#= No Comment - = Did Not Perform
N/A = Not Applicable N/C = Not Conducted (due to insufficient sample)

Remark: (1) The results relate only to the items tested (2) Samples are tested as received (3) "*" denotes conclusion was drawn according to the client's specification (4) The limit is not applicable to composite sample(s) in result section (5)Disclaimer Measurement Uncertainty: Unless otherwise agreed upon, Pass or Fail verdicts are given based on the measured values without any considerations of measurement uncertainties. Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.





3 Test Results

3.1 Total Cadmium

Microwave/Acid digestion and detection with ICP-OES/AAS
[Reporting Limit = 10.0 mg/kg]

Sample	Result(s) [mg/kg]	Client's specification [mg/kg]	Conclusion
002+003+004	N.D.	<100	PASS
006	N.D.	<100	PASS
007	N.D.	<100	PASS
008	N.D.	<100	PASS

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

3.2 Total Lead

Microwave/Acid digestion and detection with ICP-OES/AAS
[Reporting Limit = 10.0 mg/kg]

Sample	Result(s) [mg/kg]	Client's specification [mg/kg]	Conclusion
002+003+004	N.D.	<500	PASS
006	N.D.	<500	PASS
007	N.D.	<500	PASS
008	N.D.	<500	PASS

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

3.3 Polycyclic Aromatic Hydrocarbons (PAH)

According to Afps GS 2014:01, determined by GC-MS analysis
[Reporting Limit = 0.1mg/kg]

Compound(s)	Result(s) [mg/kg]
	002+003+004
Chrysene	N.D.
Benzo[a]anthracene	N.D.
Benzo[b]fluoranthene	N.D.
Benzo[j]fluoranthene	N.D.
Benzo[k]fluoranthene	N.D.
Benzo[e]pyrene	N.D.
Benzo[a]pyrene	N.D.
Dibenzo[a,h]anthracene	N.D.
Client's specification	Each <1 mg/kg
Conclusion	PASS

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

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3.3 Polycyclic Aromatic Hydrocarbons (PAH)

According to Afps GS 2014:01, determined by GC-MS analysis
 [Reporting Limit = 0.1mg/kg]

Compound(s)	Result(s) [mg/kg]
	005
Chrysene	N.D.
Benzo[a]anthracene	N.D.
Benzo[b]fluoranthene	N.D.
Benzo[j]fluoranthene	N.D.
Benzo[k]fluoranthene	N.D.
Benzo[e]pyrene	N.D.
Benzo[a]pyrene	N.D.
Dibenzo[a,h]anthracene	N.D.
Client's specification	Each <1 mg/kg
Conclusion	PASS

Compound(s)	Result(s) [mg/kg]
	006
Chrysene	N.D.
Benzo[a]anthracene	N.D.
Benzo[b]fluoranthene	N.D.
Benzo[j]fluoranthene	N.D.
Benzo[k]fluoranthene	N.D.
Benzo[e]pyrene	N.D.
Benzo[a]pyrene	N.D.
Dibenzo[a,h]anthracene	N.D.
Client's specification	Each <1 mg/kg
Conclusion	PASS

Compound(s)	Result(s) [mg/kg]
	008
Chrysene	N.D.
Benzo[a]anthracene	N.D.
Benzo[b]fluoranthene	N.D.
Benzo[j]fluoranthene	N.D.
Benzo[k]fluoranthene	N.D.
Benzo[e]pyrene	N.D.
Benzo[a]pyrene	N.D.
Dibenzo[a,h]anthracene	N.D.
Client's specification	Each <1 mg/kg
Conclusion	PASS

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

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3.4 Phthalates

According to ISO/TS16181:2011, solvent extraction and GC-MS analysis
 [Reporting Limit = 50 mg/kg]

Compound(s)	Result(s) [mg/kg]
	002+003+004
Bis (2-ethylhexyl) phthalate (DEHP)	N.D.
Dibutyl phthalate (DBP)	N.D.
Benzyl butyl phthalate (BBP)	N.D.
Di-isononyl phthalate (DINP)	N.D.
Di-isodecyl phthalate (DIDP)	N.D.
Di-n-octyl phthalate (DNOP)	N.D.
Diisobutyl phthalate (DIBP)	N.D.
Diisopentylphthalate (DIPP)	N.D.
Bis(2-methoxyethyl) phthalate (DMEP)	N.D.
1,2-Benzenedicarboxylic acid, di-C7-11- branched and linear alkyl esters (DHNUP)	N.D.
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	N.D.
N-pentyl-isopentylphthalate	N.D.
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	N.D.
Dicyclohexyl phthalate (DCHP)	N.D.
1,2-benzenedicarboxylic acid; di-C 6-8- branched alkylesters, C 7-rich (DIHP)	N.D.
Di-n-pentyl phthalate (DPP)	N.D.
Di-n-hexyl phthalate (DnHP)	N.D.
Sum of Detected Phthalates	N.D.
Client's specification	Total <1000 mg/kg
Conclusion	PASS

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

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3.4 Phthalates

According to ISO/TS16181:2011, solvent extraction and GC-MS analysis
 [Reporting Limit = 50 mg/kg]

Compound(s)	Result(s) [mg/kg]
	006
Bis (2-ethylhexyl) phthalate (DEHP)	N.D.
Dibutyl phthalate (DBP)	N.D.
Benzyl butyl phthalate (BBP)	N.D.
Di-isononyl phthalate (DINP)	N.D.
Di-isodecyl phthalate (DIDP)	N.D.
Di-n-octyl phthalate (DNOP)	N.D.
Diisobutyl phthalate (DIBP)	N.D.
Diisopentylphthalate (DIPP)	N.D.
Bis(2-methoxyethyl) phthalate (DMEP)	N.D.
1,2-Benzenedicarboxylic acid, di-C7-11- branched and linear alkyl esters (DHNUP)	N.D.
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	N.D.
N-pentyl-isopentylphthalate	N.D.
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	N.D.
Dicyclohexyl phthalate (DCHP)	N.D.
1,2-benzenedicarboxylic acid; di-C 6-8- branched alkylesters, C 7-rich (DIHP)	N.D.
Di-n-pentyl phthalate (DPP)	N.D.
Di-n-hexyl phthalate (DnHP)	N.D.
Sum of Detected Phthalates	N.D.
Client's specification	Total <1000 mg/kg
Conclusion	PASS

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

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3.4 Phthalates

According to ISO/TS16181:2011, solvent extraction and GC-MS analysis
 [Reporting Limit = 50 mg/kg]

Compound(s)	Result(s) [mg/kg]
	008
Bis (2-ethylhexyl) phthalate (DEHP)	N.D.
Dibutyl phthalate (DBP)	N.D.
Benzyl butyl phthalate (BBP)	N.D.
Di-isononyl phthalate (DINP)	N.D.
Di-isodecyl phthalate (DIDP)	N.D.
Di-n-octyl phthalate (DNOP)	N.D.
Diisobutyl phthalate (DIBP)	N.D.
Diisopentylphthalate (DIPP)	N.D.
Bis(2-methoxyethyl) phthalate (DMEP)	N.D.
1,2-Benzenedicarboxylic acid, di-C7-11- branched and linear alkyl esters (DHNUP)	N.D.
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	N.D.
N-pentyl-isopentylphthalate	N.D.
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	N.D.
Dicyclohexyl phthalate (DCHP)	N.D.
1,2-benzenedicarboxylic acid; di-C 6-8- branched alkylesters, C 7-rich (DIHP)	N.D.
Di-n-pentyl phthalate (DPP)	N.D.
Di-n-hexyl phthalate (DnHP)	N.D.
Sum of Detected Phthalates	N.D.
Client's specification	Total <1000 mg/kg
Conclusion	PASS

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than



3.5 Formaldehyde

According to EN ISO 14184-1:2011, determined by UV-Visible spectroscopy
 [Reporting Limit = 16 mg/kg]

Sample	Result(s) [mg/kg]	Client's specification [mg/kg]	Conclusion
002+003+004	N.D.	<75	PASS
005	N.D.	<75	PASS

- Notes: 1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

3.6 Pentachlorophenol (PCP)

According to ISO 17070:2015, determined by GC-ECD/GC MSD analysis
 [Reporting Limit = 0.05 mg/kg]

Compound(s)	Result(s) [mg/kg]
	005
Pentachlorophenol (PCP)	N.D.
Client's specification	<5 mg/kg
Conclusion	PASS

- Notes: 1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

3.7 Dimethylfumarate (DMFU)

According to CEN ISO/TS 16186:2012, determined by GC-MS.
 [Reporting Limit = 0.1 mg/kg]

Compound(s)	Result(s) [mg/kg]
	005
Dimethylfumarate (DMFU)	N.D.
Client's specification	<0.1 mg/kg
Conclusion	PASS

- Notes: 1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

3.8 Nonylphenoxyethoxylates (NPEO)

According to ISO 18254-1:2016, Solvent extraction, qualitatively and quantitatively analysis by LC-MSD
 [Reporting Limit = 10 mg/kg]

Compound(s)	Result(s) [mg/kg]
	002+003+004
NPEO	N.D.
Client's specification	<100 mg/kg
Conclusion	PASS

- Notes: 1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

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3.8 Nonylphenoethoxylates (NPEO)

According to ISO 18254-1:2016, Solvent extraction, qualitatively and quantitatively analysis by LC-MSD
 [Reporting Limit = 10 mg/kg]

Compound(s)	Result(s) [mg/kg]
	005
NPEO	N.D.
Client's specification	<100 mg/kg
Conclusion	PASS

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

3.10 Organotin Compounds

According to CEN ISO/TS 16179:2012, determined by GC-MS analysis
 [Reporting Limit = 0.025mg/kg]

Compound(s)	Result(s) [mg/kg]
	002+003+004
Dibutyltin (DBT)	N.D.
Diocetyl tin (DOT)	N.D.
Triphenyltin (TPhT)	N.D.
Tributyltin (TBT)	N.D.
Tricyclohexyltin (TCyT)	N.D.
Triocetyl tin (TOT)	N.D.
Client's specification	Each <1000 mg/kg
Conclusion	PASS

Compound(s)	Result(s) [mg/kg]
	005
Dibutyltin (DBT)	N.D.
Diocetyl tin (DOT)	N.D.
Triphenyltin (TPhT)	N.D.
Tributyltin (TBT)	N.D.
Tricyclohexyltin (TCyT)	N.D.
Triocetyl tin (TOT)	N.D.
Client's specification	Each <1000 mg/kg
Conclusion	PASS



3.9 Organotin Compounds

According to CEN ISO/TS 16179:2012, determined by GC-MS analysis

[Reporting Limit = 0.025mg/kg]

Compound(s)	Result(s) [mg/kg]
Dibutyltin (DBT)	N.D.
Dioctyltin (DOT)	N.D.
Triphenyltin (TPhT)	N.D.
Tributyltin (TBT)	N.D.
Tricyclohexyltin (TCyT)	N.D.
Trioctyltin (TOT)	N.D.
Client's specification	Each <1000 mg/kg
Conclusion	PASS

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

3.10 Short-Chain Chlorinated Paraffins (SCCP)

According to draft EN ISO 18219:2015 and detection with GC-MS

[Reporting Limit = 100 mg/kg]

Sample	Result(s) [mg/kg]	Client's specification [mg/kg]	Conclusion
002+003+004	N.D.	<1000	PASS
006	N.D.	<1000	PASS
008	N.D.	<1000	PASS

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

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3.11 Extractable Heavy Metals

According to EN 16711-2:2015, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

[Reporting Limit: Cadmium = 0.1 mg/kg; Arsenic & Lead = 0.2 mg/kg; Chromium VI= 0.5 mg/kg]

Compound(s)	Result(s) [mg/kg]	Client's specification [mg/kg]
	002	
Cadmium	N.D.	<1
Arsenic	N.D.	<1
Lead	N.D.	<1
Chromium VI	N.D.#	<1
Conclusion	PASS	-

Compound(s)	Result(s) [mg/kg]	Client's specification [mg/kg]
	003	
Cadmium	N.D.	<1
Arsenic	N.D.	<1
Lead	N.D.	<1
Chromium VI	N.D.#	<1
Conclusion	PASS	-

Compound(s)	Result(s) [mg/kg]	Client's specification [mg/kg]
	004	
Cadmium	N.D.	<1
Arsenic	N.D.	<1
Lead	N.D.	<1
Chromium VI	N.D.#	<1
Conclusion	PASS	-

Compound(s)	Result(s) [mg/kg]	Client's specification [mg/kg]
	005	
Cadmium	N.D.	<1
Arsenic	N.D.	<1
Lead	N.D.	<1
Chromium VI	N.D.#	<1
Conclusion	PASS	-

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than
 4. "#" values of total chromium content are reported here unless otherwise specified

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3.12 Chlorogenic Carriers

According to DIN 54232:2010, solvent extraction and GC-MS analysis
 [Reporting Limit = 0.2 mg/kg]

Compound(s)	Result(s) [mg/kg]
	005
p-chlorobenzotrithloride	N.D.
benzotrithloride	N.D.
benzylchloride	N.D.
Client's specification	Each < 1 mg/kg
Conclusion	PASS

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

3.13 Solvents

According to ISO 16189: 2013, extraction with methanol, and analysed by Gas Chromatography and Mass Spectrometry (GC-MS).
 [Report limit: DMAC, DMFA=10 mg/kg, NMP=100 mg/kg]

Compound(s)	Result(s) [mg/kg]
	002+003+004
N-Methyl-2-pyrrolidone (NMP)	N.D.
N,N-dimethylacetamide (DMAC)	N.D.
Dimethylformamide (DMFA)	N.D.
Client's specification	Each < 3000 mg/kg
Conclusion	PASS

Compound(s)	Result(s) [mg/kg]
	006
N-Methyl-2-pyrrolidone (NMP)	N.D.
N,N-dimethylacetamide (DMAC)	N.D.
Dimethylformamide (DMFA)	N.D.
Client's specification	Each < 3000 mg/kg
Conclusion	PASS

Compound(s)	Result(s) [mg/kg]
	008
N-Methyl-2-pyrrolidone (NMP)	N.D.
N,N-dimethylacetamide (DMAC)	N.D.
Dimethylformamide (DMFA)	N.D.
Client's specification	Each < 3000 mg/kg
Conclusion	PASS

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

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3.14 Quinoline

According to In House Method.
 [Report limit: 10.0mg/kg]

Compound(s)	Result(s) [mg/kg]
	005
Quinoline	N.D.
Client's specification	< 50 mg/kg
Conclusion	PASS

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

3.16 VOCs - Benzene

According to In House Method.
 [Report limit: 1.0 mg/kg]

Compound(s)	Result(s) [mg/kg]
	002+003+004
Benzene	N.D.
Client's specification	< 5 mg/kg
Conclusion	PASS

Compound(s)	Result(s) [mg/kg]
	005
Benzene	N.D.
Client's specification	< 5 mg/kg
Conclusion	PASS

Compound(s)	Result(s) [mg/kg]
	006
Benzene	N.D.
Client's specification	< 5 mg/kg
Conclusion	PASS

Compound(s)	Result(s) [mg/kg]
	008
Benzene	N.D.
Client's specification	< 5 mg/kg
Conclusion	PASS

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes Not Detected
 3. "<" denotes less than

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3.15 Analysis of the 205 substances of very high concern (SVHC) on the Candidate List for authorization, concerning Regulation (EC) No. 1907/2006 as published on the European Chemicals Agency (ECHA) website in October 2008, January 2010, March 2010, June 2010, December 2010, June 2011, December 2011, June 2012, December 2012, June 2013, December 2013, June 2014, December 2014, June 2015, December 2015, June 2016, January 2017, July 2017, January 2018, June 2018, January 2019, July 2019 and January 2020.

Analysis based on LCMS, LCMSMS, GCMS, Headspace-GCMS, ICP-OES/AAS, UV-VIS and XRF.

No.	Test Item	CAS No.	Result (%)		Reporting Limit (%)
			Sample (002+003+004+005+006+008)	Sample 007	
1	Anthracene	120-12-7	N.D.	-	0.01
2	4,4'- Diaminodiphenylmethane	101-77-9	N.D.	-	0.01
3	Dibutyl phthalate (DBP)	84-74-2	N.D.	-	0.01
4	Cobalt dichloride *	7646-79-9	N.D.	N.D.	0.01
5	Diarsenic pentaoxide*	1303-28-2	N.D.	N.D.	0.01
6	Diarsenic trioxide *	1327-53-3	N.D.	N.D.	0.01
7	Sodium dichromate *	7789-12-0 10588-01-9	N.D.	N.D.	0.01
8	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	N.D.	-	0.01
9	Bis (2-ethyl(hexyl)phthalate) (DEHP)	117-81-7	N.D.	-	0.01
10	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α – HBCDD, β -HBCDD, γ -HBCDD)	25637-99-4 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8)	N.D.	-	0.01
11	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	N.D.	-	0.01
12	Bis(tributyltin)oxide,(TBTO)	56-35-9	N.D.	-	0.01
13	Lead hydrogen arsenate *	7784-40-9	N.D.	N.D.	0.01
14	Benzyl butyl phthalate (BBP)	85-68-7	N.D.	-	0.01
15	Triethyl arsenate *	15606-95-8	N.D.	N.D.	0.01
16	Anthracene oil [§]	90640-80-5	N.D.	-	0.01
17	Anthracene oil, anthracene paste, distn. lights [§]	91995-17-4	N.D.	-	0.01
18	Anthracene oil, anthracene paste, anthracene fraction [§]	91995-15-2	N.D.	-	0.01
19	Anthracene oil, anthracene-low [§]	90640-82-7	N.D.	-	0.01
20	Anthracene oil, anthracene paste [§]	90640-81-6	N.D.	-	0.01
21	Pitch, coal tar, high temp. [§]	65996-93-2	N.D.	-	0.01
22	Aluminosilicate Refractory Ceramic Fibres*	-	N.D.	N.D.	0.01
23	Zirconia Aluminosilicate, Refractory Ceramic Fibres*	-	N.D.	N.D.	0.01
24	2,4-Dinitrotoluene	121-14-2	N.D.	-	0.01
25	Diisobutyl phthalate	84-69-5	N.D.	-	0.01
26	Lead chromate*	7758-97-6	N.D.	N.D.	0.01
27	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)*	12656-85-8	N.D.	N.D.	0.01
28	Lead sulfochromate yellow (C.I. Pigment Yellow 34)*	1344-37-2	N.D.	N.D.	0.01

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29	Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	N.D.	-	0.01
30	Acrylamide	79-06-1	N.D.	-	0.01
31	Trichloroethylene	79-01-6	N.D.	-	0.01
32	Boric Acid*	10043-35-3 11113-50-1	N.D.	N.D.	0.01
33	Disodium tetraborate, anhydrous*	1303-96-4 1330-43-4 12179-04-3	N.D.	N.D.	0.01
34	Tetraboron disodium heptaoxide, hydrate*	12267-73-1	N.D.	N.D.	0.01
35	Sodium chromate*	7775-11-3	N.D.	N.D.	0.01
36	Potassium chromate*	7789-00-6	N.D.	N.D.	0.01
37	Ammonium dichromate*	7789-09-5	N.D.	N.D.	0.01
38	Potassium dichromate*	7778-50-9	N.D.	N.D.	0.01
39	Cobalt(II) sulphate *	10124-43-3	N.D.	N.D.	0.01
40	Cobalt(II) dinitrate *	10141-05-6	N.D.	N.D.	0.01
41	Cobalt(II) carbonate*	513-79-1	N.D.	N.D.	0.01
42	Cobalt(II) diacetate*	71-48-7	N.D.	N.D.	0.01
43	2-Methoxyethanol	109-86-4	N.D.	-	0.01
44	2-Ethoxyethanol	110-80-5	N.D.	-	0.01
45	Chromium trioxide*	1333-82-0	N.D.	N.D.	0.01
46	Acids generated from chromium trioxide and their oligomers: a. Chromic acid* b. Dichromic acid * Oligomers of chromic acid and dichromic acid*	7738-94-5 13530-68-2	N.D.	N.D.	0.01
47	2-Ethoxyethyl acetate (2-EEA)	111-15-9	N.D.	-	0.01
48	Strontium chromate*	7789-06-2	N.D.	N.D.	0.01
49	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)§	68515-42-4	N.D.	-	0.01
50	Hydrazine	7803-57-8, 302-01-2	N.D.	-	0.01
51	1-Methyl-2-pyrrolidone	872-50-4	N.D.	-	0.01
52	1,2,3-Trichloropropane	96-18-4	N.D.	-	0.01
53	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	N.D.	-	0.01
54	1,2-Dichloroethane	107-06-2	N.D.	-	0.01
55	2,2'-Dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	N.D.	-	0.01
56	2-Methoxyaniline, o-Anisidine	90-04-0	N.D.	-	0.01
57	4-(1,1,3,3-Tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9	N.D.	-	0.01
58	Arsenic acid*	7778-39-4	N.D.	N.D.	0.01
59	Bis(2-methoxyethyl) ether	111-96-6	N.D.	-	0.01
60	Bis(2-methoxyethyl) phthalate	117-82-8	N.D.	-	0.01
61	Calcium arsenate*	7778-44-1	N.D.	N.D.	0.01
62	Dichromium tris(chromate)*	24613-89-6	N.D.	N.D.	0.01
63	Formaldehyde, oligomeric reaction products with aniline (technical MDA)§	25214-70-4	N.D.	-	0.01
64	Lead diazide*	13424-46-9	N.D.	N.D.	0.01

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65	Lead dipicrate*	6477-64-1	N.D.	N.D.	0.01
66	Lead styphnate*	15245-44-0	N.D.	N.D.	0.01
67	N,N-dimethylacetamide (DMAC)	127-19-5	N.D.	-	0.01
68	Pentazinc chromate octahydroxide*	49663-84-5	N.D.	N.D.	0.01
69	Phenolphthalein	77-09-8	N.D.	-	0.01
70	Potassium hydroxyoctaoxodizincatedichromate*	11103-86-9	N.D.	N.D.	0.01
71	Trilead diarsenate*	3687-31-8	N.D.	N.D.	0.01
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	N.D.	-	0.01
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	N.D.	-	0.01
74	Diboron trioxide*	1303-86-2	N.D.	N.D.	0.01
75	Formamide	75-12-7	N.D.	-	0.01
76	Lead(II) bis(methanesulfonate)*	17570-76-2	N.D.	N.D.	0.01
77	1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (TGIC)	2451-62-9	N.D.	-	0.01
78	1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)	59653-74-6	N.D.	-	0.01
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	N.D.	-	0.01
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	N.D.	-	0.01
81	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Blue 26)	2580-56-5	N.D.	-	0.01
82	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9	N.D.	-	0.01
83	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1	N.D.	-	0.01
84	α,α-Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0	N.D.	-	0.01
85	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	N.D.	-	0.01
86	Pentacosafuorotridecanoic acid	72629-94-8	N.D.	-	0.01
87	Tricosafuorododecanoic acid	307-55-1	N.D.	-	0.01
88	Henicosafuoroundecanoic acid	2058-94-8	N.D.	-	0.01
89	Heptacosafuorotetradecanoic acid	376-06-7	N.D.	-	0.01
90	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [§]	-	N.D.	-	0.01
91	4-Nonylphenol, branched and linear - substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to pheno [§]	-	N.D.	-	0.01
92	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	N.D.	-	0.01

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93	Cyclohexane-1,2-dicarboxylic anhydride (Hexahydrophthalic anhydride - HHPA)	85-42-7	N.D.	-	0.01
94	Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9	N.D.	-	0.01
95	Methoxy acetic acid	625-45-6	N.D.	-	0.01
96	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	N.D.	-	0.01
97	Diisopentylphthalate (DIPP)	605-50-5	N.D.	-	0.01
98	N-pentyl-isopentylphthalate	776297-69-9	N.D.	-	0.01
99	1,2-Diethoxyethane	629-14-1	N.D.	-	0.01
100	N,N-dimethylformamide; dimethyl formamide	68-12-2	N.D.	-	0.01
101	Dibutyltin dichloride (DBT)	683-18-1	N.D.	-	0.01
102	Acetic acid, lead salt, basic*	51404-69-4	N.D.	N.D.	0.01
103	Basic lead carbonate (trilead bis(carbonate)dihydroxide)*	1319-46-6	N.D.	N.D.	0.01
104	Lead oxide sulfate (basic lead sulfate)*	12036-76-9	N.D.	N.D.	0.01
105	[Phthalato(2-)]dioxotrilead (dibasic lead phthalate)*	69011-06-9	N.D.	N.D.	0.01
106	Dioxobis(stearato)trilead*	12578-12-0	N.D.	N.D.	0.01
107	Fatty acids, C16-18, lead salts*	91031-62-8	N.D.	N.D.	0.01
108	Lead bis(tetrafluoroborate)*	13814-96-5	N.D.	N.D.	0.01
109	Lead cyanamidate*	20837-86-9	N.D.	N.D.	0.01
110	Lead dinitrate*	10099-74-8	N.D.	N.D.	0.01
111	Lead oxide (lead monoxide)*	1317-36-8	N.D.	N.D.	0.01
112	Lead tetroxide (orange lead)*	1314-41-6	N.D.	N.D.	0.01
113	Lead titanium trioxide*	12060-00-3	N.D.	N.D.	0.01
114	Lead Titanium Zirconium Oxide*	12626-81-2	N.D.	N.D.	0.01
115	Pentalead tetraoxide sulphate*	12065-90-6	N.D.	N.D.	0.01
116	Pyrochlore, antimony lead yellow*	8012-00-8	N.D.	N.D.	0.01
117	Silicic acid, barium salt, lead-doped*	68784-75-8	N.D.	N.D.	0.01
118	Silicic acid, lead salt*	11120-22-2	N.D.	N.D.	0.01
119	Sulfurous acid, lead salt, dibasic*	62229-08-7	N.D.	N.D.	0.01
120	Tetraethyllead*	78-00-2	N.D.	N.D.	0.01
121	Tetralead trioxide sulphate*	12202-17-4	N.D.	N.D.	0.01
122	Trilead dioxide phosphonate*	12141-20-7	N.D.	N.D.	0.01
123	Furan	110-00-9	N.D.	-	0.01
124	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9	N.D.	-	0.01
125	Diethyl sulphate	64-67-5	N.D.	-	0.01
126	Dimethyl sulphate	77-78-1	N.D.	-	0.01
127	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	N.D.	-	0.01
128	Dinoseb	88-85-7	N.D.	-	0.01
129	4,4'-methylenedi-o-toluidine	838-88-0	N.D.	-	0.01
130	4,4'-oxydianiline and its salts	101-80-4	N.D.	-	0.01
131	4-Aminoazobenzene; 4-Phenylazoaniline	60-09-3	N.D.	-	0.01
132	4-methyl-m-phenylenediamine (2,4-	95-80-7	N.D.	-	0.01

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	toluene-diamine)				
133	6-methoxy-m-toluidine (p-cresidine)	120-71-8	N.D.	-	0.01
134	Biphenyl-4-ylamine	92-67-1	N.D.	-	0.01
135	o-aminoazotoluene	97-56-3	N.D.	-	0.01
136	o-Toluidine; 2-Aminotoluene	95-53-4	N.D.	-	0.01
137	N-methylacetamide	79-16-3	N.D.	-	0.01
138	1-bromopropane; n-propyl bromide	106-94-5	N.D.	-	0.01
139	Cadmium	7440-43-9	N.D.	N.D.	0.01
140	Cadmium oxide*	1306-19-0	N.D.	N.D.	0.01
141	Dipentyl phthalate (DPP)	131-18-0	N.D.	-	0.01
142	4-Nonylphenol, branched and linear, ethoxylated §	-	N.D.	-	0.01
143	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	N.D.	-	0.01
144	Pentadecafluorooctanoic acid (PFOA)	335-67-1	N.D.	-	0.01
145	Cadmium sulphide*	1306-23-6	N.D.	N.D.	0.01
146	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	N.D.	-	0.01
147	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7	N.D.	-	0.01
148	Dihexyl phthalate	84-75-3	N.D.	-	0.01
149	Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7	N.D.	-	0.01
150	Lead di(acetate)*	301-04-2	N.D.	N.D.	0.01
151	Trixylyl phosphate	25155-23-1	N.D.	-	0.01
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	N.D.	-	0.01
153	Cadmium chloride*	10108-64-2	N.D.	N.D.	0.01
154	Sodium perborate; perboric acid, sodium salt*	-	N.D.	N.D.	0.01
155	Sodium peroxometaborate*	7632-04-4	N.D.	N.D.	0.01
156	Cadmium fluoride*	7790-79-6	N.D.	N.D.	0.01
157	Cadmium sulphate*	10124-36-4; 31119-53-6	N.D.	N.D.	0.01
158	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	N.D.	-	0.01
159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	N.D.	-	0.01
160	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	N.D.	-	0.01
161	reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction	-	N.D.	-	0.01

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	mass of DOTE and MOTE)				
162	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters;1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate	68515-51-5, 68648-93-1	N.D.	-	0.01
163	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2][covering any of the individual isomers of [1] and [2]or any combination thereof]	-	N.D.	-	0.01
164	1,3-propanesultone	1120-71-4 (214-317-9)	N.D.	-	0.01
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1 (223-383-8)	N.D.	-	0.01
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3 (253-037-1)	N.D.	-	0.01
167	Nitrobenzene	98-95-3 (202-716-0)	N.D.	-	0.01
168	Perfluorononan-1-oic acid (2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptadecafluorononanoic acid and its sodium and ammonium salts	375-95-1; 21049-39-8; 4149-60-4 (206-801-3)	N.D.	-	0.01
169	Benzo[def]chrysene	50-32-8	N.D.	-	0.01
170	4,4'-isopropylidenediphenol (Bisphenol A)	80-05-7	N.D.	-	0.01
171	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	335-76-2, 3830-45-3, 3108-42-7	N.D.	-	0.01
172	p-(1,1-dimethylpropyl)phenol	80-46-6	N.D.	-	0.01
173	4-Heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB-and well-defined substances which include any of the individual isomers or a combination thereof]	-	N.D.	-	0.01
174	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	355-46-4 (206-587-1)	N.D.	-	0.01
175	1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo [12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"™) [covering any of its individual anti- and syn-isomers or any combination thereof]	---	N.D.	-	0.01
176	Benz[a]anthracene	56-55-3	N.D.	-	0.01
177	Cadmium nitrate*	10325-94-7	N.D.	N.D.	0.01
178	Cadmium carbonate*	513-78-0	N.D.	N.D.	0.01
179	Cadmium hydroxide*	21041-95-2	N.D.	N.D.	0.01
180	Chrysene	218-01-9	N.D.	-	0.01

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181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with $\geq 0.1\%$ w/w 4-heptylphenol, branched and linear]	---	N.D.	-	0.01
182	Octamethylcyclotetrasiloxane (D4)	556-67-2 (209-136-7)	N.D.	-	0.01
183	Decamethylcyclopentasiloxane (D5)	541-02-6 (208-764-9)	N.D.	-	0.01
184	Dodecamethylcyclohexasiloxane (D6)	540-97-6 (208-762-8)	N.D.	-	0.01
185	Lead	7439-92-1 (231-100-4)	N.D.	-	0.01
186	Disodium octaborate	12008-41-2 (234-541-0)	N.D.	-	0.01
187	Benzo[ghi]perylene	191-24-2 (205-883-8)	N.D.	-	0.01
188	Terphenyl hydrogenated	61788-32-7 (262-967-7)	N.D.	-	0.01
189	Ethylenediamine (EDA)	107-15-3 (203-468-6)	N.D.	-	0.01
190	Benzene-1,2,4-tricarboxylic acid 1,2-anhydride (trimellitic anhydride) (TMA)	552-30-7 (209-008-0)	N.D.	-	0.01
191	Dicyclohexyl phthalate (DCHP)	84-61-7 (201-545-9)	N.D.	-	0.01
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6 (401-720-1)	N.D.	-	0.01
193	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor)	15087-24-8 (239-139-9)	N.D.	-	0.01
194	Benzo[k]fluoranthene	207-08-9 (205-916-6)	N.D.	-	0.01
195	Fluoranthene	206-44-0 (205-912-4)	N.D.	-	0.01
196	Phenanthrene	85-01-8 (201-581-5)	N.D.	-	0.01
197	Pyrene	129-00-0 (204-927-3)	N.D.	-	0.01
198	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	-	N.D.	-	0.01
199	2-methoxyethyl acetate	110-49-6 (203-772-9)	N.D.	-	0.01
200	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq 0.1\%$ w/w of 4-nonylphenol, branched and linear (4-NP)	-	N.D.	-	0.01
201	4-tert-butylphenol (PTBP)	98-54-4 (202-679-0)	N.D.	-	0.01
202	2-benzyl-2-dimethylamino-4'-	119313-12-1	N.D.	-	0.01

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	morpholinobutyrophenone				
203	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	N.D.	-	0.01
204	Diisohexyl phthalate	71850-09-4	N.D.	-	0.01
205	Perfluorobutane sulfonic acid (PFBS) and its salts	-	N.D.	-	0.01

- Note:
1. N.D. denotes not detected
 2. "*" denotes concentration of the SVHC was conversion of test results of the corresponding metal ion
 3. "\$" The substances are UVCB (substance of unknown or variable composition, complex reaction products or biological material), the test results are calculated based on the main constituents.



TÜV SÜD Certification and Testing (China) Co., Ltd. Xia Men Branch

Approved by:

Nemo

Nemo Chen
Softlines Department



Jason

Jason Zhao
Softlines Department

-- END OF THE TEST REPORT --