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CNAS L6069



Test Report

Report No. TC.25.04.001534

Date of Issue 2025-04-29



Applicant: Shanghai Hualun Instruments & Electronics Co.,Ltd.

Applicant Address: Qianyang road, lane 271, Shanghai

Sample Description: PPS (Insert of T/B MS Hualun Connector)

Material Manufacturer: Solvay Specialty Polymers USA LLC RYTON:R-7-120

UL No.: E95746-
Component-Plastics

Receipt Date of Sample: Received on 2025-04-17

Date of Testing: From 2025-04-17 to 2025-04-24

Sample Submitted: The Sample(s) and Its (Their) Information(s) Was (Were) Submitted by Applicant and Identified.

Test Result: Refer to Next Page.

TÜV SÜD SW Rail Transportation Technology (Jiangsu) Co., Ltd.

Prepared by:

Shao Dejuan

Dejuan Shao

Approved by:

Edward Huang

Edward Huang

Note:

(1) Each order is subject to acceptance of our [General Terms and Conditions](#) and the [TÜV SÜD Testing, Certification, Validation and Verification Regulation](#), in the version valid at the time the contract is concluded. For full version of above both documents, please visit the link to view.

(2) The results in this report are relevant only to the sample(s) tested.

(3) The test report shall not be reproduced except in full without the written approval of the laboratory.

(4) Disclaimer Measurement Uncertainty:

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019 or CNAS-GL015:2022.

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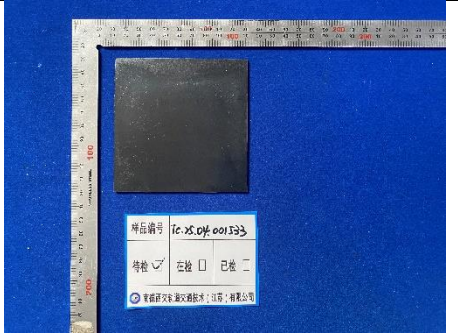


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Description of the test subject

Sample	Description	Picture of Sample
001	PPS (Insert of T/B MS Hualun Connector)	

TB/T 3139-2021 Limit of harmful substance of non-metallic materials and indoor air railway locomotive and vehicle

Conclusion:

Test Items	Standard	Conclusion
1	Part 4.6 Table 9 Irregular rubber and plastic products	
1.1	Soluble lead/Soluble cadmium	GB 18586-2001 5.4
1.2	VOC	GB 18586-2001 5.5
2	Part 5.2 Prohibited substances and Restricted substances of locomotive and vehicle non-metallic materials	
	Prohibited substances and Restricted substances	Refer to next pages.
		Pass

Remark: This Report is the English Version of Test Report No. TC.25.04.001533.



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Test Results

TB/T 3139-2021 Limit of harmful substance of non-metallic materials and indoor air railway locomotive and vehicle

1. Part 4.6 Table 9 Irregular rubber and plastic products

1.1 Test Standard: GB 18586-2001 Indoor decorating and refurbishing materials--Limit of harmful substances of polyvinyl chloride floor coverings 5.4

Item	Unit	MDL	Result	Limited value
Soluble lead	mg/kg	2	N.D.	≤5
Soluble cadmium	mg/kg	2	N.D.	≤5

1.2 Test Standard: GB 18586-2001 Indoor decorating and refurbishing materials--Limit of harmful substances of polyvinyl chloride floor coverings 5.5

Item	Unit	MDL	Result	Limited value
VOC	g/kg	0.5	2.2	≤6

2. Part 5.2 Prohibited substances and Restricted substances of locomotive and vehicle non-metallic materials

Table 17 Prohibited substances of locomotive and vehicle non-metallic materials

No.	Item	Control scope	Requirements	Results	Conclusion
1	Asbestos	All materials	Prohibited	Negative	Pass
				Negative	
				Negative	
				Negative	
				Negative	
				Negative	
2	Chlorofluorocarbon (CFC)	Solvent, Aerosol, Refrigerant, Foaming Material	Prohibited	N.A.	N.A.
3	HALON			N.A.	N.A.
4	Hydrochlorofluorocarbon (HCFC)			N.A.	N.A.



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5	Hydrofluorocarbon (HFC)		Foaming Material	Prohibited	N.A.	N.A.
6	Perfluorocarbon (PFC)				N.A.	N.A.
7	Sulfur hexafluoride (SF6)				N.A.	N.A.
8	Tetrachloroethylene		Solvent	Prohibited	N.A.	N.A.
9	Arsenic and its compounds (Calculated by total arsenic)		Woodwork	Prohibited	N.A.	N.A.
10	Beryllium and its compounds (Calculated by total beryllium)		All materials	Prohibited	N.D.	Pass
11	Cobalt and its compounds (Calculated by total cobalt)		All materials	Prohibited	N.D.	Pass
12	Cadmium and its compounds (Calculated by total cadmium)		All materials	≤100mg/kg	N.D.	Pass
13	Lead and its compounds (Calculated by total lead)		Paint	Prohibited	N.A.	N.A.
14	Mercury and its compounds (Calculated by total mercury)		Woodwork	Prohibited	N.A.	N.A.
15	Hexavalent chromium compounds (Calculated by total Hexavalent chromium)		Leather	≤3mg/kg	N.A.	N.A.
16	4-Nitrobiphenyl		All materials	Prohibited	N.D.	Pass
17	Aromatic amines	2-Naphthylamine	All materials	Prohibited	N.D.	Pass
18		Benzidine			N.D.	Pass
19		4-Aminobiphenyl			N.D.	Pass
20	Halobenzylmethane	Ugilec121	All materials	Prohibited	N.D.	Pass
21		Ugilec141			N.D.	Pass
22		DBBT			N.D.	Pass
23	Nonylphenol (NP)		Textiles, Leather Cleaning agent	≤1000mg/kg	N.A.	N.A.
24	Nonylphenol ethoxylates (NPEO)				N.A.	N.A.
25	Pentabromodiphenyl ether (PentaBDE)		All materials	≤1000mg/kg	N.D.	Pass
	Octabromodiphenyl ether (OctaBDE)			Prohibited	N.D.	Pass
26	Pentachlorophenol (PCP)		All materials	≤1000mg/kg	N.D.	Pass
27	Polychlorinated terphenyls (PCT)		All materials	≤50mg/kg	N.D.	Pass
28	Short Chain Chlorinated Paraffins (SCCP)		All materials	≤1000mg/kg	N.D.	Pass
29	Polybrominated biphenyls (PBB)		Textile	Prohibited	N.A.	N.A.
30	Tris(2,3-dibromopropyl) phosphate(TDBPP)		Textile	Prohibited	N.A.	N.A.



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31	Tris(1-aziridinyl) phosphine oxide (TEPA)		Textile	Prohibited		N.A.	N.A.
32	Halogen	Chlorine (Cl)	Electrical parts	The sum ≤1500 mg/kg	≤900 mg/kg	N.A.	N.A.
		Bromine (Br)			≤900 mg/kg	N.A.	

Table C.1 Restricted substances of locomotive and vehicle non-metallic materials

No.	Item	Control scope	Requirements	Results	Conclusion
1	Lead and its compounds (Calculated by total lead)	All materials (Excluding paint)	≤1000mg/kg	N.D.	Pass
2	Mercury and its compounds (Calculated by total mercury)	All materials (Excluding woodwork)	≤1000mg/kg	N.D.	Pass
3	Hexavalent chromium compounds (Calculated by total Hexavalent chromium)	All materials (Excluding leather)	≤1000mg/kg	N.D.	Pass
4	Polybrominated biphenyls (PBB)	All materials (Excluding Textile)	≤1000mg/kg	N.D.	Pass
5	Ppolybrominated diphenyl ethers (PBDE) (Excluding PentaBDE and OctaBDE)	All materials	≤1000mg/kg	N.D.	Pass
6	Man Made Mineral Fibre (MMMF)	All materials	Each≤1000mg/kg	N.D.	Pass
7	Talcum	All materials	≤1000mg/kg	N.D.	Pass
8	Antimony and its compounds (Calculated by total antimony)	All materials	≤1000mg/kg	N.D.	Pass
9	Nickel release	Metal coating	≤0.5µg/(cm ² ·week)	N.A.	N.A.
10	Medium-chained chlorinated paraffins (MCCP)	All materials	≤1000mg/kg	N.D.	Pass
11	Diphenylmethane diisocyanate (MDI)	All materials	≤1000mg/kg	N.D.	Pass
12	Toluene	Adhesives, Paint	≤1000mg/kg	N.A.	N.A.
13	Polycyclic aromatic hydrocarbons (PAHs)	All materials	≤500mg/kg	N.D.	Pass
14	Organotin compounds	All materials	Each≤1000mg/kg	N.D.	Pass
15	Triphenyl phosphate(TPP)	All materials	≤1000mg/kg	N.D.	Pass
16	Phthalates	Butyl benzyl phthalate (BBP)	The sum≤1000mg/kg	N.D.	Pass
17		Dibutyl phthalate (DBP)		N.D.	
18		Di(2-ethylhexyl) phthalate (DEHP)		N.D.	
19		Diisobutyl phthalate (DIBP)		N.D.	



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20		Diisononyl phthalate (DINP)	All materials	≤1000mg/kg	N.D.	Pass
21		Diisodecyl phthalate (DIDP)	All materials	≤1000mg/kg	N.D.	Pass
22		Di-n-octyl Phthalate (DNOP)	All materials	≤1000mg/kg	N.D.	Pass
23		Dimethyl phthalate(DMP)	All materials	≤1000mg/kg	N.D.	Pass
24		Tetramethylthiuram Disulfide (TMTD)	All materials	≤1000mg/kg	N.D.	Pass
25		Polychlorinated Biphenyls (PCBs)	All materials	≤50mg/kg	N.D.	Pass
26		Trichlorobenzene (TCB)	All materials	≤1000mg/kg	N.D.	Pass

Table 17 Detailed results:

Test Method: GB/T 23263-2009, and analyzed by PLM&XRD.

Item	CAS No.	Limited value	Unit	MDL	Result
Chrysotile asbestos	12001-29-5	Prohibited	%	0.1	Negative
Crocidolite	12001-28-4		%	0.1	Negative
Actinolite	77536-66-4		%	0.1	Negative
Amosite	12172-73-5		%	0.1	Negative
Anthophyllite	77536-67-5		%	0.1	Negative
Tremolite	77536-68-6		%	0.1	Negative

Note: Negative:<0.1%, Positive:≥0.1%.

Test Method: TB/T 3139-2021 Appendix D, and analyzed by HS-GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
CFC-11	75-69-4	Prohibited	mg/kg	0.1	N.A.
CFC-12	75-71-80		mg/kg	0.1	N.A.
CFC-13	75-72-9		mg/kg	0.1	N.A.
CFC-111	354-56-3		mg/kg	0.1	N.A.
CFC-112	76-11-9		mg/kg	0.1	N.A.
CFC-113	76-13-1		mg/kg	0.1	N.A.



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CFC-114	76-14-2		mg/kg	0.1	N.A.
CFC-115	76-15-3		mg/kg	0.1	N.A.
CFC-211	422-78-6		mg/kg	0.1	N.A.
CFC-212	661-96-1		mg/kg	0.1	N.A.
CFC-213	1652-89-7		mg/kg	0.1	N.A.
CFC-214	677-68-9		mg/kg	0.1	N.A.
CFC-215	76-17-5		mg/kg	0.1	N.A.
CFC-216	661-97-2		mg/kg	0.1	N.A.
CFC-217	422-86-6		mg/kg	0.1	N.A.

Test Method: TB/T 3139-2021 Appendix D, and analyzed by HS-GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Halon 2402	124-73-2	Prohibited	mg/kg	0.1	N.A.
Halon 1211	353-59-3		mg/kg	0.1	N.A.
Halon 1301	75-63-8		mg/kg	0.1	N.A.

Test Method: TB/T 3139-2021 Appendix D, and analyzed by HS-GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
HCFC-21	75-43-4	Prohibited	mg/kg	0.1	N.A.
HCFC-22	75-45-6		mg/kg	0.1	N.A.
HCFC-123	306-83-2		mg/kg	0.1	N.A.
HCFC-124	2837-89-0		mg/kg	0.1	N.A.
HCFC-141b	1717-00-6		mg/kg	0.1	N.A.
HCFC-141	---		mg/kg	0.1	N.A.
HCFC-142	---		mg/kg	0.1	N.A.
HCFC-151	---		mg/kg	0.1	N.A.
HCFC-142b	75-68-3		mg/kg	0.1	N.A.
HCFC-31	593-70-4		mg/kg	0.1	N.A.
HCFC-121	354-14-3		mg/kg	0.1	N.A.
HCFC-122	354-21-2		mg/kg	0.1	N.A.



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HCFC-231	421-94-3		mg/kg	0.1	N.A.
HCFC-232	460-89-9		mg/kg	0.1	N.A.
HCFC-233	7125-84-0		mg/kg	0.1	N.A.
HCFC-234	425-94-5		mg/kg	0.1	N.A.
HCFC-235	460-92-4		mg/kg	0.1	N.A.
HCFC-241	666-27-3		mg/kg	0.1	N.A.
HCFC-242	460-63-9		mg/kg	0.1	N.A.
HCFC-243	338-75-0		mg/kg	0.1	N.A.
HCFC-262	420-99-5 102738-79-4		mg/kg	0.1	N.A.
HCFC-131	359-28-4		mg/kg	0.1	N.A.
HCFC-132	431-06-1		mg/kg	0.1	N.A.
HCFC-133	---		mg/kg	0.1	N.A.
HCFC-221	422-26-4		mg/kg	0.1	N.A.
HCFC-222	422-30-0		mg/kg	0.1	N.A.
HCFC-223	422-52-6		mg/kg	0.1	N.A.
HCFC-224	---		mg/kg	0.1	N.A.
HCFC-225	---		mg/kg	0.1	N.A.
HCFC-225ca	422-56-0		mg/kg	0.1	N.A.
HCFC-225cb	507-55-1		mg/kg	0.1	N.A.
HCFC-226	431-87-8		mg/kg	0.1	N.A.
HCFC-244	679-85-6		mg/kg	0.1	N.A.
HCFC-251	421-41-0		mg/kg	0.1	N.A.
HCFC-252	819-00-1		mg/kg	0.1	N.A.
HCFC-253	460-35-5		mg/kg	0.1	N.A.
HCFC-261	7799-56-6 420-97-3		mg/kg	0.1	N.A.
HCFC-271	430-55-7		mg/kg	0.1	N.A.



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Test Method: TB/T 3139-2021 Appendix D, and analyzed by HS-GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
HFC-23	75-46-7	Prohibited	mg/kg	0.1	N.A.
HFC-32	75-10-5		mg/kg	0.1	N.A.
HFC-41	593-53-3		mg/kg	0.1	N.A.
HFC-43-10mee	---		mg/kg	0.1	N.A.
HFC-125	354-33-6		mg/kg	0.1	N.A.
HFC-134	359-35-3		mg/kg	0.1	N.A.
HFC-134a	811-97-2		mg/kg	0.1	N.A.
HFC-152a	75-37-6		mg/kg	0.1	N.A.
HFC-143	420-46-2		mg/kg	0.1	N.A.
HFC-143a	430-66-0		mg/kg	0.1	N.A.
HFC-227ea	---		mg/kg	0.1	N.A.
HFC-236cb	---		mg/kg	0.1	N.A.
HFC-236ea	431-63-0		mg/kg	0.1	N.A.
HFC-236fa	690-39-1		mg/kg	0.1	N.A.
HFC-245ca	679-86-7		mg/kg	0.1	N.A.
HFC-245fa	---		mg/kg	0.1	N.A.
HFC-365mfc	---		mg/kg	0.1	N.A.

Test Method: TB/T 3139-2021 Appendix D, and analyzed by HS-GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Perfluorinated methane	75-73-0	Prohibited	mg/kg	0.1	N.A.
Perfluoroethane	76-16-4		mg/kg	0.1	N.A.
Perfluoropropane	76-19-7		mg/kg	0.1	N.A.
Perfluorobutane	355-25-9		mg/kg	0.1	N.A.
Perfluoropentane	678-26-2		mg/kg	0.1	N.A.
Perfluorohexane	355-42-0		mg/kg	0.1	N.A.
Perfluorocyclobutane	115-25-3		mg/kg	0.1	N.A.



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Test Method: TB/T 3139-2021 Appendix D, and analyzed by HS-GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Sulfur hexafluoride (SF6)	2551-62-4	Prohibited	mg/kg	0.1	N.A.

Test Method: TB/T 3139-2021 Appendix D, and analyzed by HS-GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Tetrachloroethylene	127-18-4	Prohibited	mg/kg	0.1	N.A.

Test Method: GB/T 33422-2016, and analyzed by ICP-OES.

Item	CAS No.	Limited value	Unit	MDL	Result
Arsenic and its compounds	Multiple	Prohibited	mg/kg	5	N.A.
Beryllium and its compounds	Multiple	Prohibited	mg/kg	5	N.D.
Cobalt and its compounds	Multiple	Prohibited	mg/kg	5	N.D.

Test Method: GB/T 26125-2011, and analyzed by ICP-OES.

Item	CAS No.	Limited value	Unit	MDL	Result
Cadmium and its compounds	Multiple	100	mg/kg	10	N.D.
Lead and its compounds	Multiple	Prohibited	mg/kg	10	N.A.
Mercury and its compounds	Multiple	Prohibited	mg/kg	4	N.A.

Test Method: GB/T 22807-2019, and analyzed by UV-Vis.

Item	CAS No.	Limited value	Unit	MDL	Result
Hexavalent chromium compounds	Multiple	3	mg/kg	3	N.A.

Test Method: TB/T 3139-2021 Appendix E, and analyzed by GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
4-Nitrobiphenyl	92-93-3	Prohibited	mg/kg	10	N.D.



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Test Method: GB/T 17592-2011, and analyzed by GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
2-Naphthylamine	91-59-8	Prohibited	mg/kg	5	N.D.
Benzidine	92-87-5		mg/kg	5	N.D.
4-Aminobiphenyl	92-67-1		mg/kg	5	N.D.

Test Method: TB/T 3139-2021 Appendix F, and analyzed by GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Ugilec121	99688-47-8	Prohibited	mg/kg	10	N.D.
Ugilec141	81161-70-8		mg/kg	10	N.D.
DBBT	76253-60-6		mg/kg	10	N.D.

Test Method: GB/T 23322-2018, and analyzed by LC-MS-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Nonylphenol (NP)	25154-52-3/ 84852-15-3	1000	mg/kg	1	N.A.

Test Method: GB/T 23322-2018, and analyzed by LC-MS-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Nonylphenol ethoxylates (NPEO)	9016-45-9	1000	mg/kg	1	N.A.

Test Method: GB/T 26125-2011, and analyzed by GC-MS.

Item	Limited value	Unit	MDL	Result
Pentabromodiphenyl ether (PentaBDE)	1000	mg/kg	5	N.D.
Octabromodiphenyl ether (OctaBDE)	Prohibited	mg/kg	5	N.D.

Test Method: GB/T 18414.1-2006, and analyzed by GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Peratox	87-86-5	1000	mg/kg	0.05	N.D.
Natriumpentachlorphenolat	131-52-2		mg/kg	0.05	N.D.
Pentachlorophenol acetate	1441-02-7		mg/kg	0.05	N.D.



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Test Method: SN/T 3918-2014, and analyzed by GC-MS.

Item	Limited value	Unit	MDL	Result
Polychlorinated terphenyls (PCT)	50	mg/kg	5	N.D.

Test Method: GB/T 33345-2016, and analyzed by GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Short Chain Chlorinated Paraffins (SCCP)	85535-84-8	1000	mg/kg	50	N.D.

Test Method: GB/T 26125-2011, and analyzed by GC-MS.

Item	Limited value	Unit	MDL	Result
Monobromobiphenyl (MonoBB)	Prohibited	mg/kg	5	N.A.
Dibromobiphenyl (DiBB)		mg/kg	5	N.A.
Tribromobiphenyl (TriBB)		mg/kg	5	N.A.
Tetrabromobiphenyl (TetraBB)		mg/kg	5	N.A.
Pentabromobiphenyl (PentaBB)		mg/kg	5	N.A.
Hexabromobiphenyl (HexaBB)		mg/kg	5	N.A.
Heptabromobiphenyl (HeptaBB)		mg/kg	5	N.A.
Octabromobiphenyl (OctaBB)		mg/kg	5	N.A.
Nonabromobiphenyl (NonaBB)		mg/kg	5	N.A.
Decabromobiphenyl (DecaBB)		mg/kg	5	N.A.

Test Method: TB/T 3139-2021 Appendix G, and analyzed by GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Tris(2,3-dibromopropyl) phosphate (TDBPP)	126-72-7	Prohibited	mg/kg	5	N.A.
Tris(1-aziridinyl) phosphine oxide (TEPA)	545-55-1	Prohibited	mg/kg	5	N.A.



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Test Method: GB/T 34692-2017, and analyzed by IC.

Item	CAS No.	Limited value		Unit	MDL	Result
Chlorine (Cl)	7782-50-5	900	The sum 1500	mg/kg	15	N.A.
Bromine (Br)	7726-95-6	900		mg/kg	75	N.A.

Table C.1 Detailed results:

Test Method: GB/T 26125-2011, and analyzed by ICP-OES.

Item	CAS No.	Limited value	Unit	MDL	Result
Lead and its compounds	Multiple	1000	mg/kg	10	N.D.
Mercury and its compounds	Multiple	1000	mg/kg	4	N.D.

Test Method: GB/T 26125-2011, and analyzed by UV-Vis.

Item	CAS No.	Limited value	Unit	MDL	Result
Hexavalent chromium compounds	Multiple	1000	mg/kg	2	N.D.

Test Method: GB/T 26125-2011, and analyzed by GC-MS.

Item	Limited value	Unit	MDL	Result
Monobromobiphenyl (MonoBB)	1000	mg/kg	5	N.D.
Dibromobiphenyl (DiBB)		mg/kg	5	N.D.
Tribromobiphenyl (TriBB)		mg/kg	5	N.D.
Tetrabromobiphenyl (TetraBB)		mg/kg	5	N.D.
Pentabromobiphenyl (PentaBB)		mg/kg	5	N.D.
Hexabromobiphenyl (HexaBB)		mg/kg	5	N.D.
Heptabromobiphenyl (HeptaBB)		mg/kg	5	N.D.
Octabromobiphenyl (OctaBB)		mg/kg	5	N.D.
Nonabromobiphenyl (NonaBB)		mg/kg	5	N.D.
Decabromobiphenyl (DecaBB)		mg/kg	5	N.D.



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Test Method: GB/T 26125-2011, and analyzed by GC-MS.

Item	Limited value	Unit	MDL	Result
Monobromodiphenyl ether (MonoBDE)	1000	mg/kg	5	N.D.
Dibromodiphenyl ether (DiBDE)		mg/kg	5	N.D.
Tribromo diphenyl ether (TriBDE)		mg/kg	5	N.D.
Tetrabromodiphenyl ether (TetraBDE)		mg/kg	5	N.D.
Hexabromodiphenyl ether (HexaBDE)		mg/kg	5	N.D.
Heptabromodiphenyl ether (HeptaBDE)		mg/kg	5	N.D.
Nonabromodiphenyl ether (NonaBDE)		mg/kg	5	N.D.
Decabromodiphenyl ether (DecaBDE)		mg/kg	5	N.D.

Test Method: TB/T 3139-2021 Appendix H, and analyzed by PLM&ICP-OES.

Item	CAS No.	Limited value	Unit	MDL	Result
Aluminosilicate Refractory Ceramic Fibres	Multiple	1000	mg/kg	100	N.D.
Zirconia Aluminosilicate Refractory Ceramic Fibres	Multiple	1000	mg/kg	100	N.D.

Test Method: TB/T 3139-2021 Appendix I, and analyzed by PLM&XRD&ICP-OES.

Item	CAS No.	Limited value	Unit	MDL	Result
Talcum	14807-96-6	1000	mg/kg	1000	N.D.

Test Method: GB/T 33422-2016, and analyzed by ICP-OES.

Item	CAS No.	Limited value	Unit	MDL	Result
Antimony and its compounds	Multiple	1000	mg/kg	10	N.D.

Test Method: GB/T 19719-2005, and analyzed by ICP-OES.

Item	CAS No.	Limited value	Unit	MDL	Result
Nickel release	7440-02-0	0.5	$\mu\text{g}/(\text{cm}^2 \cdot \text{week})$	0.05	N.A.



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Test Method: TB/T 3139-2021 Appendix J, and analyzed by GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Medium-chained chlorinated paraffins (MCCP)	85535-85-9	1000	mg/kg	50	N.D.

Test Method: GB/T 18446-2009, and analyzed by GC-MS.

Item	Limited value	Unit	MDL	Result
2,2'-Diphenylmethane diisocyanate	1000	mg/kg	10	N.D.
2,4'-Diphenylmethane diisocyanate		mg/kg	10	N.D.
4,4'-Diphenylmethane diisocyanate		mg/kg	10	N.D.

Test Method: GB 18583-2008, and analyzed by GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Toluene	108-88-3	1000	mg/kg	20	N.A.

Test Method: GB/T 29784.2-2013, and analyzed by GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Naphthalene	91-20-3	500	mg/kg	0.1	N.D.
Acenaphthylene	208-96-8		mg/kg	0.1	N.D.
Acenaphthene	83-32-9		mg/kg	0.1	N.D.
Fluorene	86-73-7		mg/kg	0.1	N.D.
Phenanthrene	85-01-8		mg/kg	0.1	N.D.
Anthracene	120-12-7		mg/kg	0.1	N.D.
Fluoranthene	206-44-0		mg/kg	0.1	N.D.
Pyrene	129-00-0		mg/kg	0.1	N.D.
Benzo(a)pyrene	50-32-8		mg/kg	0.1	N.D.
Benzo(e)pyrene	192-97-2		mg/kg	0.1	N.D.
Benzo(a)anthracene	56-55-3		mg/kg	0.1	N.D.
Chrysene	218-01-9		mg/kg	0.1	N.D.
Benzo(b)fluoranthene	205-99-2		mg/kg	0.1	N.D.



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Benzo(j)fluoranthene	205-82-3		mg/kg	0.1	N.D.
Benzo(k)fluoranthene	207-08-9		mg/kg	0.1	N.D.
Dibenzo(a,h)anthracene	53-70-3		mg/kg	0.1	N.D.
Indeno(1,2,3-cd)pyrene	193-39-5		mg/kg	0.1	N.D.
Benzo(g,h,i)perylene	191-24-2		mg/kg	0.1	N.D.

Test Method: GB/T 35492-2017, and analyzed by GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Tributyltin chloride(TBT)	1461-22-9	1000	mg/kg	10	N.D.
Chlorotriphenyltin (TPT)	639-58-7	1000	mg/kg	10	N.D.
Dibutyltin dichloride(DBT)	683-18-1	1000	mg/kg	10	N.D.
Di-n-octyltin-dichloride(DOT)	3542-36-7	1000	mg/kg	10	N.D.

Test Method: TB/T 3139-2021 Appendix G, and analyzed by GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Triphenyl phosphate(TPP)	115-86-6	1000	mg/kg	5	N.D.

Test Method: TB/T 3139-2021 Appendix K, and analyzed by GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Butyl benzyl phthalate (BBP)	85-68-7	1000	mg/kg	50	N.D.
Dibutyl phthalate (DBP)	84-74-2		mg/kg	50	N.D.
Di(2-ethylhexyl) phthalate (DEHP)	117-81-7		mg/kg	50	N.D.
Diisobutyl phthalate (DIBP)	84-69-5		mg/kg	50	N.D.
Diisononyl phthalate (DINP)	28553-12-0	1000	mg/kg	50	N.D.
Diisodecyl phthalate (DIDP)	26761-40-0	1000	mg/kg	50	N.D.
Di-n-octyl Phthalate (DNOP)	117-84-0	1000	mg/kg	50	N.D.
Dimethyl phthalate(DMP)	131-11-3	1000	mg/kg	50	N.D.



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Test Method: SN/T 0525-2012, and analyzed by LC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Tetramethylthiuram Disulfide (TMTD)	137-26-8	1000	mg/kg	5	N.D.

Test Method: GB/T 32887-2016, and analyzed by GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
PCB1	2051-60-7	50	mg/kg	0.5	N.D.
PCB4	13029-08-8		mg/kg	0.5	N.D.
PCB28	7012-37-5		mg/kg	0.5	N.D.
PCB52	35693-99-3		mg/kg	0.5	N.D.
PCB101	37680-73-2		mg/kg	0.5	N.D.
PCB138	35065-28-2		mg/kg	0.5	N.D.
PCB180	35065-29-3		mg/kg	0.5	N.D.
PCB194	35694-08-7		mg/kg	0.5	N.D.
PCB206	40186-72-9		mg/kg	0.5	N.D.
PCB209	2051-24-3		mg/kg	0.5	N.D.

Test Method: GB/T 20384-2006, and analyzed by GC-MS.

Item	CAS No.	Limited value	Unit	MDL	Result
Trichlorobenzene (TCB)	120-82-1, 87-61-6	1000	mg/kg	0.05	N.D.

- Note:
- 1) MDL = Method Detection Limit.
 - 2) N.D. = Not detected, less than MDL.
 - 3) N.A. = Not applicable

-End of Report-