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Client Name: JIANGSU ZHENGDAN CHEMICAL INDUSTRY CO.,LTD

Client Address: NO.18 SONGLINSHAN ROAD, INTERNATIONAL CHEMICAL INDUSTRY PARK OF ZHENJIANG

NEW AREA JIANGSU.CHINA

Sample Name: Trimetric anhydride(TMA)

The above sample(s) and information were provided by the client.

SGS Job No.: CP23-021253 - GZ

Date of Sample Received: 10 May 2023

Testing Period: 10 May 2023 - 16 May 2023

Test Requested: Selected test(s) as requested by the client.

Test Method(s): Please refer to next page(s).

Test Result(s): Please refer to next page(s).

Result Summary:

Test Requested	Conclusion
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	PASS
Tetrabromobisphenol A (TBBP-A)	See Results
Bisphenol-A	See Results
AfPS GS 2019:01 PAK - Polycyclic Aromatic Hydrocarbons (PAHs)	See Results
Perfluorooctanoic acid (PFOA) and its salts & Perfluorooctane sulfonates (PFOS) and its derivatives	See Results

Signed for and on behalf of

SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Allie Chen

Allie Chen
Approved Signatory







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Test Result(s):

Test Part Description:

Specimen No. SGS Sample ID Description
SN1 CAN23-068241.001 White material

Remarks:

- (1) 1 mg/kg = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) "-" = Not Regulated

EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)

Test Method: With reference to IEC 62321-4:2013+A1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 62321-6:2015 and IEC 62321-8:2017, analyzed by ICP-OES, UV-Vis and GC-MS.

Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	ND
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	1000	mg/kg	8	ND
Sum of PBBs	1000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND



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Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@egs.com

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Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>	
Pentabromodiphenyl ether	-	mg/kg	5	ND	
Hexabromodiphenyl ether	-	mg/kg	5	ND	
Heptabromodiphenyl ether	-	mg/kg	5	ND	
Octabromodiphenyl ether	-	mg/kg	5	ND	
Nonabromodiphenyl ether	-	mg/kg	5	ND	
Decabromodiphenyl ether	-	mg/kg	5	ND	
Dibutyl phthalate (DBP)	1000	mg/kg	50	ND	
Butyl benzyl phthalate (BBP)	1000	mg/kg	50	ND	
Bis (2-ethylhexyl) phthalate (DEHP)	1000	mg/kg	50	ND	
Diisobutyl Phthalates (DIBP)	1000	mg/kg	50	ND	

Notes:

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
- (2) IEC 62321 series is equivalent to EN 62321 series
- (3) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.

Tetrabromobisphenol A (TBBP-A)

Test Method: SGS In-house method (GZTC CHEM-TOP-065, With reference to EPA 3540C:1996 & EPA

8270E:2017), analysis was performed by LC-MS/MS.

Test Item(s)	CAS NO.	<u>Unit</u>	<u>MDL</u>	<u>001</u>
Tetrabromobisphenol A	79-94-7	mg/kg	5	ND
(TBBP-A)				

Bisphenol-A

Test Method: SGS In-house method (GZTC CHEM-TOP-075-02, With reference to EPA 3550C:2007 & EPA

8321B:2007), analysis was performed by LC-MS.

Test Item(s)	<u>CAS NO.</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
Bisphenol-A	80-05-7	mg/kg	1.0	ND

AfPS GS 2019:01 PAK - Polycyclic Aromatic Hydrocarbons (PAHs)



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Test Method: With reference to AfPS GS 2019:01 PAK, analysis was performed by GC-MS.

Test Item(s)	CAS NO.	<u>Unit</u>	<u>MDL</u>	<u>001</u>
Naphthalene(NAP)	91-20-3	mg/kg	0.1	ND
Phenanthrene(PHE)	85-01-8	mg/kg	0.1	ND
Anthracene(ANT)	120-12-7	mg/kg	0.1	ND
Fluoranthene(FLT)	206-44-0	mg/kg	0.1	ND
Pyrene(PYR)	129-00-0	mg/kg	0.1	ND
Benzo(a)anthracene(BaA)	56-55-3	mg/kg	0.1	ND
Chrysene(CHR)	218-01-9	mg/kg	0.1	ND
Benzo(b)fluoranthene(BbF)	205-99-2	mg/kg	0.1	ND
Benzo(j)fluoranthene(BjF)	205-82-3	mg/kg	0.1	ND
Benzo(k)fluoranthene(BkF)	207-08-9	mg/kg	0.1	ND
Benzo(a)pyrene(BaP)	50-32-8	mg/kg	0.1	ND
Benzo(e)pyrene(BeP)	192-97-2	mg/kg	0.1	ND
Indeno(1,2,3-c,d)pyrene(IPY)	193-39-5	mg/kg	0.1	ND
Dibenzo(a,h)anthracene(DBA)	53-70-3	mg/kg	0.1	ND
Benzo(g,h,i)perylene(BPE)	191-24-2	mg/kg	0.1	ND
Sum of 4 PAHs (Phenanthrene, Pyrene, Anthracene,	-	mg/kg	-	ND
Fluoranthene)				
Sum of 15 PAHs	-	mg/kg	-	ND





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AfPS (German commission for Product Safety): PAHs requirements

	Category 1	Cateç	jory 2	Categ	Category 3		
Parameter (mg/kg)	Materials intended to be placed in the mouth, or materials coming into long-term contact with skin (more than 30s) during the intended use	Materials not covered by category 1, coming into long-term contact (more than 30s) or short-term repetitive contact ^c with skin during the intended or foreseeable use ^d .		Materials covered neither by category 1 nor by category 2, coming into short-term contact (up to 30s) with skin during the intended or foreseeable use.			
	-in toys according to Directive 2009/48/EC or -for the use by children ^{a,b} up to 3 years of age.	a. use by children	b. other consumer products	a. use by children	b. other consumer products		
Benzo(a)pyrene (BaP)	< 0.2	< 0.2	< 0.5	< 0.5	< 1		
Benzo(e)pyrene (BeP)	< 0.2	< 0.2	< 0.5	< 0.5	< 1		
Benzo(a)anthracene (BaA)	< 0.2	< 0.2	< 0.5	< 0.5	< 1		
Benzo(b)fluoranthene (BbF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1		
Benzo(j)fluoranthene (BjF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1		
Benzo(k)fluoranthene (BkF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1		
Chrysene (CHR)	< 0.2	< 0.2	< 0.5	< 0.5	< 1		
Dibenzo(a,h)anthracene (DBA)	< 0.2	< 0.2	< 0.5	< 0.5	< 1		
Benzo(g,h,i)perylene (BPE)	< 0.2	< 0.2	< 0.5	< 0.5	< 1		
Indeno(1,2,3-cd)pyrene (IPY)	< 0.2	< 0.2	< 0.5	< 0.5	< 1		
Phenanthrene (PHE), pyrene (PYR), anthracene (ANT), fluoranthene (FLT)	< 1 Sum	< 5 Sum	< 10 Sum	< 20 Sum	< 50 Sum		
Naphthalene (NAP)	< 1	< 2		< 10			
Sum of 15 PAHs	<1	< 5	< 10	< 20	< 50		

Note:

Remark: The German committee on Product Safety (AfPS) published a new PAHs document (AfPS GS 2019:01 PAK) on April 10, 2020, which will be binding for the issue of GS mark certificate from July 1, 2020.

Perfluorooctanoic acid (PFOA) and its salts & Perfluorooctane sulfonates (PFOS) and its derivatives

Test Method: With reference to CEN/TS15968:2010, analysis was performed by LC-MS or LC-MS/MS.



^a A "Child" is legally defined as a person before reaching the age of 14 years.

^b Use by children includes both active and passive contact by children.

^c Definition "short-term repetitive contact" taken from REACH Annex XVII entry 50 amendment (Regulation (EC) No. 1272/2013)

^d According to the definition of the German Product Safety Act (ProdSG) (chapter 1 Article 2 No. 28) "foreseeable use" shall mean the use of a product in a manner that the person placing it on the market, has not intended, but which could be reasonably foreseeable.



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Test Item(s)		CAS NO.	<u>Unit</u>	MDL	<u>001</u>
Perfluorooctanoic acid (PFOA) ar	nd its salts*	-	mg/kg	0.010	ND
Perfluorooctane sulfonates (PFO	S) and its salts*	-	mg/kg	0.010	ND
Perfluorooctane Sulfonamide (PF	FOSA)	754-91-6	mg/kg	0.010	ND
N-methylperfluoro-1-octanesulfor	namide(N-MeFOSA)	31506-32-8	mg/kg	0.010	ND
N-ethylperfluoro-1-octanesulfona	mide (N-EtFOSA)	4151-50-2	mg/kg	0.010	ND
2-(N-methylperfluoro-1-octanesul- -ethanol(N-MeFOSE)	lfonamido)	24448-09-7	mg/kg	0.010	ND
2-(N-ethylperfluoro-1-octanesulfo-ethanol(N-EtFOSE)	namido)	1691-99-2	mg/kg	0.010	ND
Perfluorooctane sulfonates (PFO	S) and its	-	mg/kg	-	ND
derivatives					

Notes:

- (1) PFOA and its salts* including PFOA (CAS No. 335-67-1), APFO (CAS No. 3825-26-1), PFOA-Na (CAS No. 335-95-5), PFOA-K (CAS No. 2395-00-8), PFOA-Ag (CAS No. 335-93-3) and PFOA-F (CAS No. 335-66-0). The result of PFOA is used to represent PFOA and its salts.
- (2) PFOS and its salts* including PFOS (CAS No. 1763-23-1), POSF(CAS No. 307-35-7), PFOS-K (CAS No. 2795-39-3), PFOS-NH₄ (CAS No. 29081-56-9), PFOS-N($C_{10}H_{21}$)₂(CH₃)₂ (CAS No. 251099-16-8), PFOS-NH₂($C_{2}H_{4}OH$)₂ (CAS No. 70225-14-8), PFOS-Li (CAS No. 29457-72-5), PFOS-N($C_{2}H_{5}$)₄ (CAS No. 56773-42-3) and PFOS-Na (CAS No. 4021-47-0). The result of PFOS is used to represent PFOS and its salts.

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.





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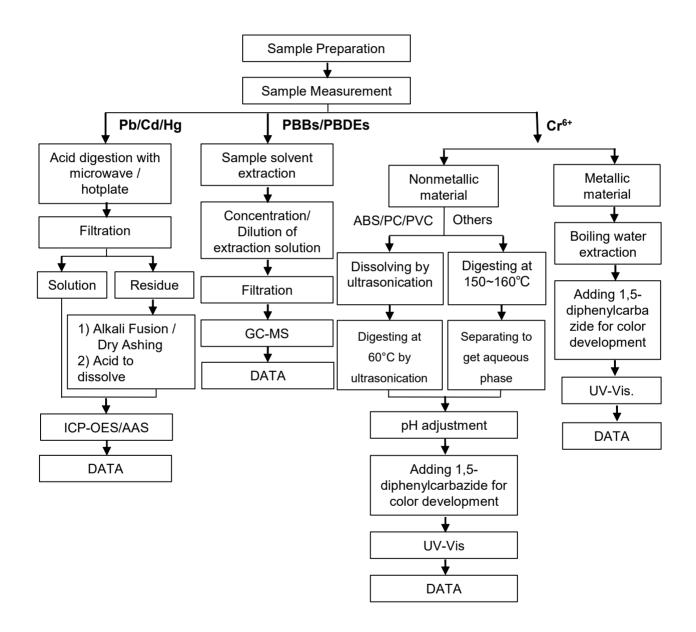
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Pb/Cd/Hg/Cr6+/PBBs/PBDEs Testing Flow Chart

1) These samples were dissolved totally by pre -conditioning method according to below flow chart. (Cr⁶⁺ and PBBs/PBDEs test method excluded).







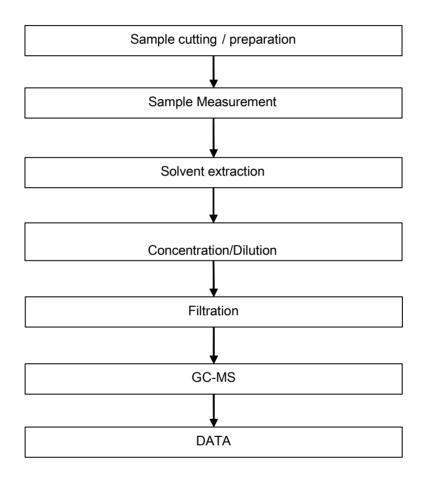
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Phthalates Testing Flow Chart







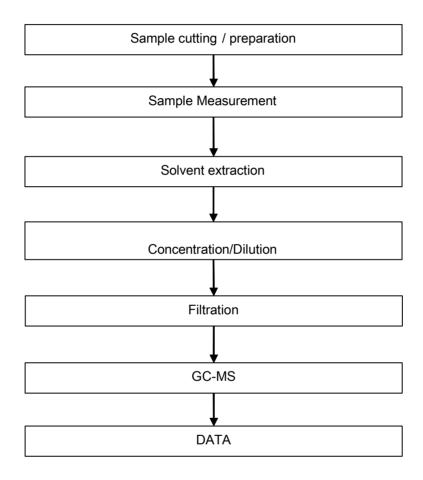
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PAHs Testing Flow Chart







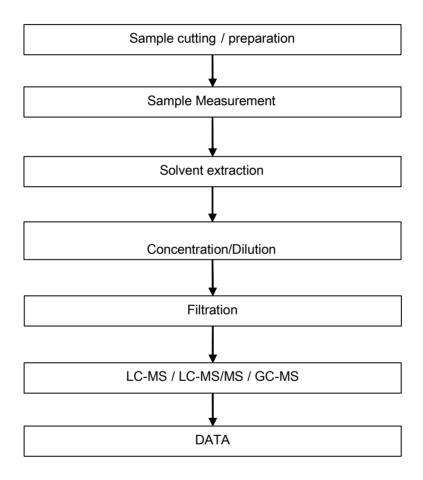
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PFAS Testing Flow Chart







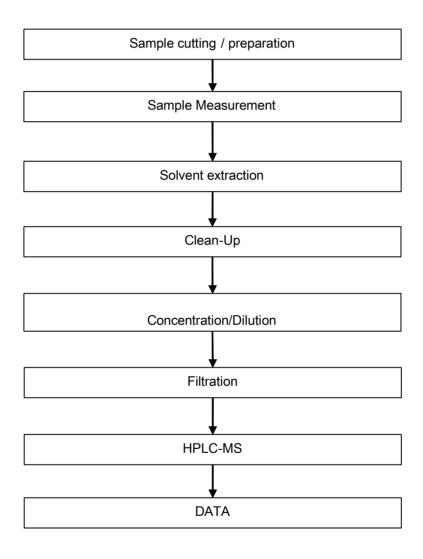
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BPA Testing Flow Chart







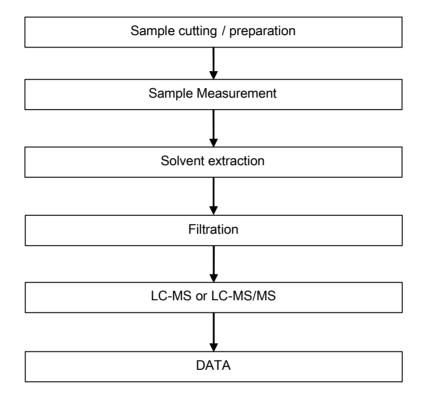
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TBBP-A Testing Flow Chart







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Sample photo:



SGS authenticate the photo on original report only

*** End of Report ***

