

测试报告

No. CANEC2116296114

日期: 2021年09月10日 第1页,共10页

广东超华科技股份有限公司
广东省梅县雁洋镇松坪村

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SGS工作编号: CP21-046354 - SZ
型号: HTE
样品接收日期: 2021年08月31日
测试周期: 2021年08月31日 - 2021年09月09日
测试要求: 根据客户要求测试
测试方法: 请参见下一页
测试结果: 请参见下一页

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陈江梨

Allie Chen 陈江梨
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CANEC2116296114



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Testing Center Chemical Laboratory.

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测试报告

No. CANEC2116296114

日期: 2021年09月10日 第2页,共10页

测试结果:

测试样品描述:

样品编号	SGS样品ID	描述
SN1	CAN21-162961.001	带红铜色表层的红铜色金属

备注:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = 方法检测限
- (3) ND = 未检出 (< MDL)
- (4) "-" = 未规定

四溴双酚-A

测试方法: SGS内部方法(GZTC CHEM-TOP-065, 参考EPA 3540C:1996 & EPA 8270E:2017), 采用LC-MS/MS进行分析。

测试项目	单位	MDL	001
四溴双酚-A	mg/kg	5	ND

聚氯乙烯(PVC)

测试方法: SGS内部方法(SGS-CCL-TOP-066-01), 采用FTIR进行分析。

测试项目	CAS NO.	单位	MDL	001
聚氯乙烯(PVC)	9002-86-2	-	-	阴性

备注:

- (1) 阴性 = 未检测到, 阳性 = 已检测到

多环芳香烃

测试方法: 参考AfPS GS 2019:01 PAK 测试, 采用 GC-MS 进行分析。

测试项目	CAS NO.	单位	MDL	001
萘 (NAP)	91-20-3	mg/kg	0.1	ND
菲 (PHE)	85-01-8	mg/kg	0.1	ND
蒽 (ANT)	120-12-7	mg/kg	0.1	ND



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测试项目	CAS NO.	单位	MDL	001
荧蒽 (FLT)	206-44-0	mg/kg	0.1	ND
芘 (PYR)	129-00-0	mg/kg	0.1	ND
苯并(a)蒽 (BaA)	56-55-3	mg/kg	0.1	ND
蒽 (CHR)	218-01-9	mg/kg	0.1	ND
苯并(b)荧蒽 (BbF)	205-99-2	mg/kg	0.1	ND
苯并(j)荧蒽 (BjF)	205-82-3	mg/kg	0.1	ND
苯并(k)荧蒽 (BkF)	207-08-9	mg/kg	0.1	ND
苯并(a)芘 (BaP)	50-32-8	mg/kg	0.1	ND
苯并(e)芘 (BeP)	192-97-2	mg/kg	0.1	ND
茚并(1,2,3-c,d)芘 (IPY)	193-39-5	mg/kg	0.1	ND
二苯并(a,h)蒽(DBA)	53-70-3	mg/kg	0.1	ND
苯并(g,h,i)芘(二苯并(a,h)蒽) (BPE)	191-24-2	mg/kg	0.1	ND
萘烯(ANY)	208-96-8	mg/kg	0.1	ND
萘(蒽嵌戊烷) (ANA)	83-32-9	mg/kg	0.1	ND
芴 (FLU)	86-73-7	mg/kg	0.1	ND
7项多环芳香烃总和[萘烯(ANY), 萘(蒽嵌戊烷) (ANA), 芴 (FLU), 菲 (PHE), 芘 (PYR), 蒽 (ANT), 荧蒽 (FLT)]	-	mg/kg	-	ND
18项多环芳香烃总和	-	mg/kg	-	ND



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客户要求

参数 (mg/kg)	1类	2类		3类	
	设计意图为放入口中的材料,或与皮肤长期接触(超过30秒)的材料用于-2009/48/EC定义的玩具,或-供3岁以下儿童 ^{a,b} 使用。	不属于第1类,设计意图或可预见 ^d 与皮肤长期接触(超过30秒)或短期重复接触 ^e 的材料		不属于第1和2类,设计意图或可预见与皮肤短期接触(不超过30秒)材料	
		a.供儿童使用的产品	b.其他产品	a.供儿童使用的产品	b.其他产品
苯并(a)芘(BaP)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(e)芘(BeP)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(a)蒽(BaA)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(b)荧蒽(BbF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(j)荧蒽(BjF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(k)荧蒽(BkF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
蒽(CHR)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
二苯并(a,h)蒽(DBA)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
苯并(g,h,i)芘(二苯嵌苯)(BPE)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
茚并(1,2,3-c,d)芘(IPY)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
菲(PHE),芘(PYR),蒽(ANT),荧蒽(FLT),苊烯(ANY),苊(萘嵌戊烷)(ANA),芴(FLU),7 PAH之和	< 1 (总和)	< 5 (总和)	< 10 (总和)	< 20 (总和)	< 50 (总和)
萘(NAP)	< 1	< 2		< 10	
18 PAH之和	< 1	< 5	< 10	< 20	< 50

注释:

^a 儿童是指法定年龄未满 14 周岁的人。

^b 供儿童使用包括儿童的主动接触或被动接触。

^c “短期重复接触”的定义摘自 REACH 附录 XVII 第 50 条修正案 ((EC) No. 1272/2013)。

^d 根据德国产品安全法 (ProdSG) (第一章第 2 条第 28 款) 的定义,“可预见的使用”是指将产品投放市场的人无意但可以合理预见的方式使用产品。

备注: 材料的分类参考 2020 年 4 月 10 日发布的 AfPS GS 2019:01 PAK 标准。苊烯(ANY)、苊(萘嵌戊烷)(ANA)和芴(FLU)不在 AfPS GS 2019:1 PAK 的范围内,但是结合其在 AfPS GS 2014:01 PAK 的范围内,以及考虑到 LFGB 章节 30 的产品安全要求,推荐进行测试。

阻燃剂

测试方法: SGS 内部方法 (GZTC CHEM-TOP-149-04, 参考 EPA 3550C:2007), 采用 GC-MS 和 HPLC-DAD/MS 进行分析。

测试项目	CAS NO.	单位	MDL	001
磷酸三(1,3-二氯-2-丙基)酯(TDCPP)	13674-87-8	mg/kg	5	ND
磷酸三(2-氯乙基)酯(TCEP)	115-96-8	mg/kg	5	ND



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测试项目	CAS NO.	单位	MDL	001
磷酸三(1-氯-2-丙基)酯(TCPP)	13674-84-5	mg/kg	5	ND
2,3,4,5-四溴苯甲酸(2-乙基己基)酯(TBB)	183658-27-7	mg/kg	5	ND
四溴邻苯二甲酸二(2-乙基己基)酯(TBPH)	26040-51-7	mg/kg	5	ND
磷酸三苯基酯(TPP)	115-86-6	mg/kg	5	ND
2,2-双氯甲基-三亚甲基-双[双(2-氯乙基)磷酸酯] (V6)	38051-10-4	mg/kg	5	ND
磷酸叔丁基苯二苯酯 (MDPP)	56803-37-3	mg/kg	5	ND
磷酸苯基(二叔丁基苯基)酯(DBPP)	65652-41-7	mg/kg	5	ND
磷酸三(4-叔丁基苯)酯(TBPP)	78-33-1/ 28777-70-0	mg/kg	5	ND
五溴二苯醚 (Penta-BDEs)	32534-81-9	mg/kg	5	ND
八溴二苯醚 (Octa-BDEs)	32536-52-0	mg/kg	5	ND
十溴二苯醚 (Deca-BDE)	1163-19-5	mg/kg	5	ND
磷酸三甲酯 (TMP)	512-56-1	mg/kg	5	ND
磷酸三乙酯 (TEP)	78-40-0	mg/kg	5	ND
磷酸三丁酯 (TBP)	126-73-8	mg/kg	5	ND
磷酸三异丁酯 (TiBP)	126-71-6	mg/kg	5	ND
双(2,3-二溴丙基)磷酸盐 (BDBPP)	5412-25-9	mg/kg	5	ND
磷酸三(2-丁氧基乙基)酯 (TBEP)	78-51-3	mg/kg	5	ND
三(2,3-二溴丙基)磷酸酯 (Tris/TDBPP)	126-72-7	mg/kg	5	ND
磷酸三(2-乙基己基)酯 (TEHP)	78-42-2	mg/kg	5	ND
磷酸三邻甲苯酯 (TOCP)	78-30-8	mg/kg	5	ND
磷酸三间甲苯酯 (TMCP)	563-04-2	mg/kg	5	ND
磷酸三对甲苯酯 (TPCP)	78-32-0	mg/kg	5	ND
四溴双酚A (TBBPA)	79-94-7	mg/kg	5	ND
四溴双酚A-双(2,3-二溴丙基) (Bis-TBBPA)	21850-44-2	mg/kg	5	ND
六溴苯 (HBB)	87-82-1	mg/kg	5	ND
一溴联苯 (Mono-BBs)	-	mg/kg	5	ND
二溴联苯 (Di-BBs)	-	mg/kg	5	ND
三溴联苯 (Tri-BBs)	-	mg/kg	5	ND
四溴联苯 (Tetra-BBs)	-	mg/kg	5	ND
五溴联苯 (PentaBBs)	-	mg/kg	5	ND
六溴联苯 (Hexa-BBs)	-	mg/kg	5	ND
七溴联苯 (Hepta-BBs)	-	mg/kg	5	ND
八溴联苯 (OctaBBs)	-	mg/kg	5	ND
九溴联苯 (Nona-BBs)	-	mg/kg	5	ND
十溴联苯 (Deca-BB)	13654-09-6	mg/kg	5	ND
多溴联苯 (PBBs)	59536-65-1	mg/kg	5	ND



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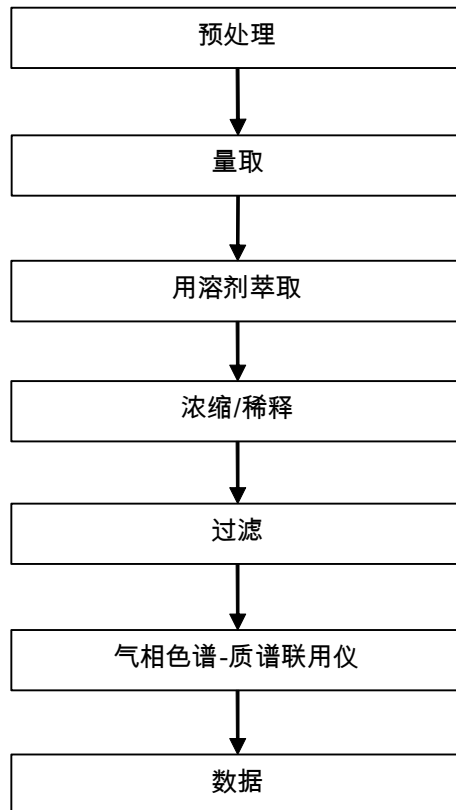
测试项目	CAS NO.	单位	MDL	001
六溴环十二烷(HBCDD) 及其非对映异构体(α -HBCDD, β -HBCDD, γ -HBCDD)	25637-99-4 3194-55-6 134237-50-6 134237-51-7 134237-52-8	mg/kg	10	ND
十溴二苯乙烷 (DEBD)	84852-53-9	mg/kg	25	ND
三-(氮环丙基)-氧化膦 (TEPA)	545-55-1	mg/kg	5	ND
2,2-双(溴乙基)-1,3-丙二醇(BBMPD)	3296-90-0	mg/kg	5	ND
C10-C13短链氯化石蜡 (SCCP)	-	mg/kg	50	ND
四溴二苯醚 (Tetra-BDEs)	-	mg/kg	5	ND
六溴二苯醚 (Hexa-BDEs)	-	mg/kg	5	ND
七溴二苯醚 (Hepta-BDEs)	-	mg/kg	5	ND
九溴二苯醚 (NonaBDE)	-	mg/kg	5	ND
多溴二苯醚 (PBDEs)	-	mg/kg	5	ND
双(六氯环戊二烯)环辛烷 (Dechlorane Plus)	13560-89-9	mg/kg	5	ND
1,2-双(2,4,6-三溴苯氧基)乙烷 (BTBPE)	37853-59-1	mg/kg	5	ND
1,2-二溴-4-(1,2-二溴乙基)环己烷(TBECH)	3322-93-8	mg/kg	5	ND
六氯二溴辛烷 (DBHC-TCTD)	51936-55-1	mg/kg	5	ND
五溴乙苯 (PBEB)	85-22-3	mg/kg	5	ND
磷酸三(二甲苯)酯 (TXP)	25155-23-1	mg/kg	5	ND
磷酸三甲苯酯 (TCP)	1330-78-5	mg/kg	5	ND
五溴甲苯 (PBT)	87-83-2	mg/kg	5	ND
	115-28-6	mg/kg	10	ND
2,4,6-三溴苯酚 (TBP)	118-79-6	mg/kg	5	ND
	608-71-9	mg/kg	10	ND
	608-93-5	mg/kg	5	ND
2,4,6-三溴苯基烯丙基醚 (TBPAE)	3278-89-5	mg/kg	5	ND
磷酸-双(甲苯基)苯酯 (MPHP)	26446-73-1	mg/kg	5	ND
9,10-二氢-9-氧杂-10-磷杂菲-10-氧化物(DOPO)	35948-25-5	mg/kg	5	ND
间苯二酚-双(二苯基磷酸盐) (RDP)	57583-54-7	mg/kg	5	ND
2-羟乙氧基-乙烷-2-羟丙基-3,4,5,6-四溴邻苯二甲酸 (TBPADO)	77098-07-8	mg/kg	5	ND
异丙基化磷酸三苯酯(IPTPP)	68937-41-7	mg/kg	5	ND
2-乙基己基二苯基磷酸酯	1241-94-7	mg/kg	5	ND

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附件

PAHs 测试流程图

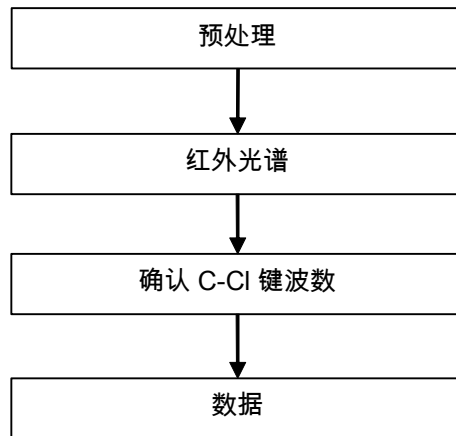


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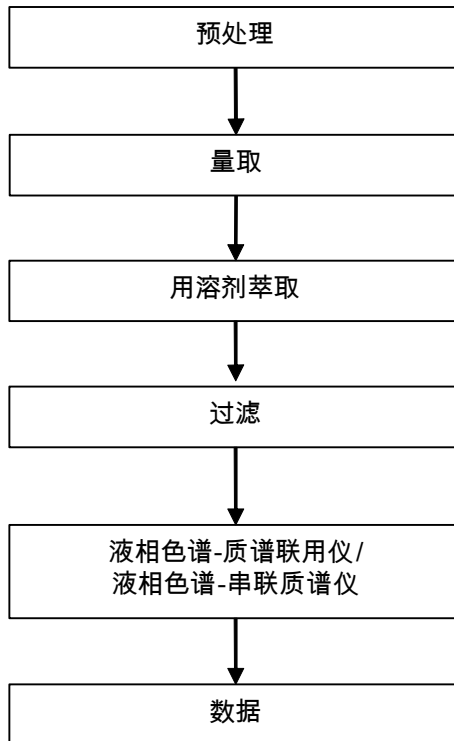
附件

PVC 测试流程图



附件

TBBP-A 测试流程图



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