

Test Report No.: Z128091113a

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Client: SHENZHEN JOYETECH FLAVORS & FRAGRANCES CO., LTD
2F, B-28, Heyi Beifang Tech. Industrial Park, Shajing Town, Baoan District,
Shenzhen, P. R. China**Test item(s):** 1 liquid material, transparent**Identification/
Model No(s):** VAPORIZER FLAVOR
ITEM NO.: 2012/8/29**Sample Receiving date:** 2012-09-03**Testing Period:** 2012-09-04 to 2012-09-06**Test specification:**

Polycyclic aromatic hydrocarbons (PAHs) - ZEK 01.4-08

Cadmium, Lead, Chromium VI, Mercury, Polybrominated biphenyls (PBB)
and Polybrominated diphenyl ethers (PBDE)**Test result:**

PASS

PASS

Other Information:

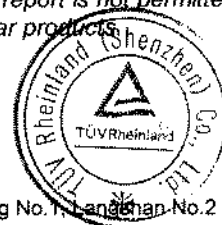
According to customer's requirement, only the appointed material has been tested.

For and on behalf of
TÜV Rheinland (Shenzhen) Co., Ltd.

2012-09-26 Aaron Zhou / Assistant Project Manager

Date

Name/Position

*Test result is drawn according to the kind and extent of tests performed.**This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.*

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Material list

Material No.	Material	Color	Location
1	Liquid	Transparent	Vaporizer flavor



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Polycyclic aromatic hydrocarbons (PAHs) - ZEK 01.4-08**Test method:** ZEK 01.4-08**Test result**

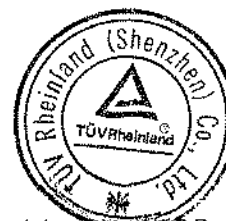
			Test No.	1
			Material No.:	1
Parameter	CAS No.	Unit	RL	Result
Acenaphthene	83-32-9	mg/kg	0.2	n.d.
Acenaphthylene	208-96-8	mg/kg	0.2	n.d.
Anthracene	120-12-7	mg/kg	0.2	n.d.
Benzo[a]anthracene	56-55-3	mg/kg	0.2	n.d.
Benzo[a]pyrene(BaP)	50-32-8	mg/kg	0.2	n.d.
Benzo[b]fluoranthene	205-99-2	mg/kg	0.2	n.d.
Benzo[k]fluoranthene	207-08-9	mg/kg	0.2	n.d.
Benzo[j]fluoranthene	205-82-3	mg/kg	0.2	n.d.
Benzo[g,h,i]perylene	191-24-2	mg/kg	0.2	n.d.
Benzo[e]pyrene	192-97-2	mg/kg	0.2	n.d.
Chrysene	218-01-9	mg/kg	0.2	n.d.
Dibenzo[a,h]anthracene	53-70-3	mg/kg	0.2	n.d.
Fluoranthene	206-44-0	mg/kg	0.2	n.d.
Fluorene	86-73-7	mg/kg	0.2	n.d.
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.2	n.d.
Naphthalene	91-20-3	mg/kg	0.2	n.d.
Phenanthrene	85-01-8	mg/kg	0.2	n.d.
Pyrene	129-00-0	mg/kg	0.2	n.d.
Sum PAHs	NA	mg/kg	NA	n.d.
Category	NA	NA	NA	1
Limit of Benzo[a]pyrene(BaP)	50-32-8	mg/kg	NA	0.2
Limit of Sum PAHs	NA	mg/kg	NA	0.2
Conclusion				Pass

Abbreviation: n.d. = not detected (< Reporting Limit)

RL = Reporting Limit

NA = Not Applicable

mg/kg = milligram per kilogram



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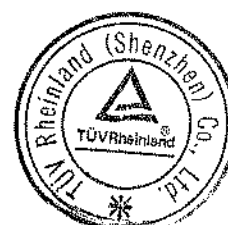
Remark:

* Single components with an amount of <0.2 mg/kg were not considered by the calculation of the sum.
In the case of all 18 PAHs according to ZEK 01.4-08 were not detected, the result is stated n.d.

**PAH maximum permissible limits requirement from the GS-Mark Approval

Parameter	Category 1	Category 2	Category 3
	Materials intended to be put into the mouth, or toy materials for children aged <36 months with intended skin contact	Materials, which is not falling into Cat. 1, with foreseeable skin contact longer than 30 seconds (long-term skin contact)	Materials, which is not falling into Cat. 1 or Cat. 2, with foreseeable skin contact up to 30 seconds (short-term skin contact)
Benzo[a]pyrene [mg/kg]	< 0.2	1	20
Sum 18 PAH (ZEK 01.4-08) [mg/kg]	< 0.2	10	200

Limit: Specific evaluation required according to type of foreseeable use.



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**Cadmium, Lead, Chromium VI, Mercury, Polybrominated biphenyls (PBB)
and Polybrominated diphenyl ethers (PBDE)**

Test Method: Total Cadmium, Lead, Mercury, Chromium – Ref. to IEC 62321 Ed.1, 2008
Chromium VI – Ref. to IEC 62321 Ed.1, 2008
PBBs, PBDEs – Ref. to IEC 62321 Ed.1, 2008

Material list

Material No.	Material	Color	Description/ Location	Remark	Test Plan
					A=Test HM only B=Test FR only C=Test HM+FR
1	Liquid	Transparent	Vaporizer flavor	-	C

Abbreviation: HM (Heavy Metal) = Cd, Pb, Hg, Cr(VI)
FR (Flame Retardant) = PBBs, PBDEs

Test result

	Cd	Pb	Cr(VI)	Hg	PBBs	PBDEs
Maximum Permissible Limit ppm (mg/kg)	100	1000	1000	1000	1000	1000

Material No.	ppm (mg/kg)					
	Cd	Pb	Cr [^]	Hg	PBBs	PBDEs
	RL (mg/kg)					
	2	2	2	2	– (*1)	– (*1)
1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Abbreviation: Pb = Lead
Cd = Cadmium
Hg = Mercury
Cr (VI) = Chromium (VI)
PBBs = Total Polybrominated Biphenyls
PBDEs = Total Polybrominated Diphenyl Ethers
N.D. = Not Detected (< Reporting Limit)
RL = Reporting Limit
N.A. = Not Applicable
^ = The total Chromium have been determined.
ppm = parts per million
mg/kg = milligram per kilogram



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Remark:

(*1) The reporting limit for each individual PBBs and individual PBDEs are:

Reporting Limit in ppm (mg/kg)		
PBBs	Monobromobiphenyl	5
	Dibromobiphenyl	5
	Tribromobiphenyl	5
	Tetrabromobiphenyl	5
	Pentabromobiphenyl	5
	Hexabromobiphenyl	5
	Heptabromobiphenyl	5
	Octabromobiphenyl	5
	Nonabromobiphenyl	5
	Decabromobiphenyl	5
PBDEs	Monobromodiphenyl ether	5
	Dibromodiphenyl ether	5
	Tribromodiphenyl ether	5
	Tetrabromodiphenyl ether	5
	Pentabromodiphenyl ether	5
	Hexabromodiphenyl ether	5
	Heptabromodiphenyl ether	5
	Octabromodiphenyl ether	5
	Nonabromodiphenyl ether	5
	Decabromodiphenyl ether	5

Sample photo:

Material No. 1



- END -

