



TEST REPORT

Report No.: SZ10030008R02
Sample Name: GSM&GPRS module
Mark & type: SIM900
Test Item: Thirty (30) Substances of Very High Concern
(SVHC) analysis
Date: 2010-05-05

prepared for

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No.L1659



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Report No.: SZ10030008R02

Sample Name: GSM&GPRS module

Sample Received Date: 2010-03-15

Testing Date: 2010-03-15~2010-04-30

Test Result: See next pages.

Summary: According to the specified scope and analytical technique, concentrations of all 30 SVHC are less than(<)0.1% in the submitted sample(s)

Checked by:

Xianzhine
2010.05.05

Approved by:



Test Method:

Test item	Procedure	Apparatus	Classification
Anthracene	With reference to ZEK 01.2-08	GC/MS	PBT
4,4'-Diaminodiphenylmethane	With reference to EN14362-1:2003	GC/MS	Carcinogen Category 2
Dibutyl phthalate (DBP)	With reference to EN14372:2004	GC/MS	Toxic to Reproduction Category 2
Benzyl butyl phthalate (BBP)	With reference to EN14372:2004	GC/MS	Toxic to Reproduction Category 2
Bis(2-ethylhexyl)phthalate (DEHP)	With reference to EN14372:2004	GC/MS	Toxic to Reproduction Category 2
5-tert-butyl-2,4,6-trinitro-m-xylene (Musk Xylene)	With reference to EPA3550C:2007	GC/MS	vPvB
Hexabromocyclododecane(HBCD D) and all major diatderoisomers identified(α -HBCDD, β -HBCDD, γ -HBCDD)	With reference to EPA3540C:1996	GC/MS	PBT
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	With reference to EPA3540C:1996	GC/MS	PBT
Bis(tributyltin)oxide	With reference to BS ISO 17353:2004	GC/MS	PBT
Cobalt dichloride	With reference to EPA 3052:1996	AAS	Carcinogen Category 2
Diarsenic pentaoxide	With reference to EPA 3052:1996	AAS	Carcinogen Category 1
Diarsenic trioxide	With reference to EPA 3052:1996	AAS	Carcinogen Category 1
Triethyl arsenate	With reference to EPA 3052:1996	AAS	Carcinogen Category 1
Lead hydrogen arsenate	With reference to EPA 3052:1996	AAS	Carcinogen Category 1; Toxic to Reproduction Category 1
Sodium dichromate	With reference to EPA 3050A:1996	UV-Vis	Carcinogen Category2;Mutagen Category2;Toxic to Reproduction Category 2
Anthracene oil	With reference to ZEK 01.2-08	GC/MS	Persistent, bioaccumulative and toxic; Very persistent and very bioaccumulative; Carcinogen, category 2 ¹⁾
Anthracene oil, anthracene paste, distn. lights	With reference to ZEK 01.2-08	GC/MS	Persistent, bioaccumulative and toxic; Very persistent and very bioaccumulative;



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			Carcinogen, category 2 ²⁾ ; Mutagen, category 2 ³⁾
Anthracene oil, anthracene paste, anthracene fraction	With reference to ZEK 01.2-08	GC/MS	Persistent, bioaccumulative and toxic; Very persistent and very bioaccumulative; Carcinogen, category 2 ²⁾ Mutagen, category 2 ³⁾
Anthracene oil, anthracene-low	With reference to ZEK 01.2-08	GC/MS	Persistent, bioaccumulative and toxic; Very persistent and very bioaccumulative; Carcinogen, category 2 ²⁾ Mutagen, category 2 ³⁾
Anthracene oil, anthracene paste	With reference to ZEK 01.2-08	GC/MS	Persistent, bioaccumulative and toxic; Very persistent and very bioaccumulative; Carcinogen., category 2 ²⁾ ; Mutagen, category 2 ³⁾
Coal tar pitch, high temperature	With reference to ZEK 01.2-08	GC/MS	Persistent, bioaccumulative and toxic; Very persistent and very bioaccumulative; Carcinogen, category 2
Acrylamide	With reference to EPA3550C:2007	GC/MS	Carcinogen, category 2; Mutagen, category 2
Aluminosilicate Refractory Ceramic Fibres	With reference to EPA 3052:1996	AAS	Carcinogen, category 2
Zirconia Aluminosilicate, Refractory Ceramic Fibres	With reference to EPA 3052:1996	AAS	Carcinogen, category 2
2,4-Dinitrotoluene	With reference to EPA3540C:1996	GC/MS	Carcinogen, category 2
Diisobutyl phthalate	With reference to EN14372:2004	GC/MS	Toxic for reproduction, category 2
Lead chromate yellow(C.I. Pigment Red 104)	With reference to EPA 3052:1996	AAS	Carcinogen, category 2; Toxic for reproduction, category 1
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	With reference to EPA 3052:1996	AAS	Carcinogen, category 2; Toxic for reproduction, category 1
Lead chromate	With reference to EPA 3052:1996	AAS	Carcinogen, category 2; Toxic for reproduction, category 1
tris(2-chloroethyl)phosphate	With reference to EPA3540C:1996	GC/MS	Toxic for reproduction, category 2

Tested components

No.	SAMPLE No.	COMPONENTS	REMARK
1	A-1	PACKAGING PART	SEE THE PHOTO
2	A-2	PCB	SEE THE PHOTO
3	A-3	ELECTRONIC COMPONENTS PART	SEE THE PHOTO
4	A-4	METAL PART	SEE THE PHOTO

Remark:

1. Definition of classification is listed in Appendix A of this accordance with 67/548/EEC and Regulation (EC) No 1907/2006.
2. The chemical analysis of 30 SVHC is performed by means of currently available analytical techniques against the list published by ECHA, and shall refer to http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp. This list is under evaluation by ECHA and may subject to changes in the future.
3. In accordance with Regulation (EC) No 1907/2006, any producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, If a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, if (a) the substance is present in those articles in quantities totaling over one tonne per producer or importer per year; and(b) the substance is present in those articles above a concentration of 0.1% weight by weight (w/w)
4. Article 33 of Regulation (EC) No 1907/2006 requires supplier of article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance.

**Test Result:**

Substance Name	Unit	Concentration				MDL
		A-1	A-2	A-3	A-4	
Anthracene(CAS No.: 000120-12-7)	mg/kg	N.D.	N.D.	N.D.	-	0.2
4,4'-Diaminodiphenylmethane (CAS No.: 000101-77-9)	mg/kg	N.D.	N.D.	N.D.	-	20
Dibutyl phthalate (DBP) (CASNo.: 000084-74-2)	mg/kg	N.D.	N.D.	N.D.	-	30
Benzyl butyl phthalate (BBP) (CAS No.: 000085-68-7)	mg/kg	N.D.	N.D.	N.D.	-	30
Bis(2-ethylhexyl)phthalate(DEHP) (CASNo.: 000117-81-7)	mg/kg	N.D.	N.D.	N.D.	-	30
5-tert-butyl-2,4,6-trinitro-m-xylene (MuskXylene)(CASNo.: 000081-15-2)	mg/kg	N.D.	N.D.	N.D.	-	10
Hexabromocyclododecane(HBCDD) (CAS No.: 025637-99-4)	mg/kg	N.D.	N.D.	N.D.	-	10
Hexabromocyclododecane(HBCDD) and all major diatderoisomers identified(α -HBCDD, β - HBCDD, γ -HBCDD)	mg/kg	N.D.	N.D.	N.D.	-	100
Bis(tributyltin)oxide** (CASNo.: 000056-35-9)	mg/kg	N.D.	N.D.	N.D.	-	30
Cobalt dichloride* (CASNo.: 007646-79-9)	mg/kg	N.D.	N.D.	N.D.	N.D.	100
Diarsenic pentaoxide* (CASNo.: 001303-28-2)	mg/kg	N.D.	N.D.	N.D.	N.D.	15
Diarsenic trioxide* (CASNo.: 001327-53-3)	mg/kg	N.D.	N.D.	N.D.	N.D.	15
Triethyl arsenate* (CASNo.: 015606-95-8)	mg/kg	N.D.	N.D.	N.D.	-	20
Lead hydrogen arsenate* (CASNo.: 007784-40-9)	mg/kg	N.D.	N.D.	N.D.	N.D.	50
Sodium dichromate, dehydrate* (CAS No.: 007789-12-0)	mg/kg	N.D.	N.D.	N.D.	N.D.	35
Anthracene oil** (CAS No.: 90640-80-5)	mg/kg	N.D.	N.D.	N.D.	-	50
Anthracene oil, anthracene paste, distn. Lights**(CAS No.:91995-17-4)	mg/kg	N.D.	N.D.	N.D.	-	50
Anthracene oil, anthracene paste, anthracene fraction**(CAS No.:91995-15-2)	mg/kg	N.D.	N.D.	N.D.	-	50



Anthracene oil, anthracene-low** (CAS No.:90640-82-7)	mg/kg	N.D.	N.D.	N.D.	-	50
Anthracene oil, anthracene paste** (CAS No.:90640-81-6)	mg/kg	N.D.	N.D.	N.D.	-	50
Coal tar pitch, high temperature** (CAS No.:65996-93-2)	mg/kg	N.D.	N.D.	N.D.	-	50
Acrylamide (CAS No.:79-06-1)	mg/kg	N.D.	N.D.	N.D.	-	50
Aluminosilicate Refractory Ceramic Fibres* (CAS No.:650-017-00-8)	mg/kg	N.D.	N.D.	N.D.	N.D.	50
Zirconia Aluminosilicate, Refractory Ceramic Fibres* (CAS No.:650-017-8)	mg/kg	N.D.	N.D.	N.D.	N.D.	50
2,4-Dinitrotoluene (CAS No.:121-14-2)	mg/kg	N.D.	N.D.	N.D.	-	10
Diisobutyl phthalate (CAS No.:84-69-5)	mg/kg	N.D.	N.D.	N.D.	-	10
Lead sufochromate yellow(C.I. Pigment Yellow 34)* (CAS No.:1344-37-2)	mg/kg	N.D.	N.D.	N.D.	N.D.	35
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)* (CAS No.:12656-85-8)	mg/kg	N.D.	N.D.	N.D.	N.D.	35
Lead chromate* (CAS No.:7758-97-6)	mg/kg	N.D.	N.D.	N.D.	N.D.	35
tris(2-chloroethyl)phosphate (CAS No.:115-96-8)	mg/kg	N.D.	N.D.	N.D.	-	10

Remark:

1. *= Calculated concentration of diarsenic pentaoxide, diarsenic trioxide, sodium dichromate, Aluminosilicate Refractory Ceramic Fibres, Zirconia Aluminosilicate Refractory Ceramic Fibres, Lead sufochromate yellow, Lead chromate molybdate sulphate red, Lead chromate, lead hydrogen arsenate and triethyl arsenate are based on the identified heavy metal result. Identity of above metal substances present in the article has to be further confirmed.
2. **=Calculated concentration of bis(tributyltin) oxide TBTO is based on the identified tributyltin, TBT results, The result is a screening test of TBT and can cover TBTO and salts undercurrent technologies, Further investigation is required if the exact amount of TBTO has to be determined; Calculated concentration of Anthracene oil, Anthracene oil anthracene paste,distn. Lights, Anthracene oil anthracene paste anthracene fraction, Anthracene oil anthracene-low, Anthracene oil anthracene paste and Coal tar pitch high temperature is based on the identified

polycyclic aromatic hydrocarbon result, The result is a screening test of polycyclic aromatic hydrocarbon and can cover Anthracene oil, Anthracene oil anthracene paste, distn. Lights, Anthracene oil anthracene paste anthracene fraction, Anthracene oil anthracene-low, Anthracene oil anthracene paste and Coal tar pitch high temperature, Further investigation is required if the exact amount of Anthracene oil, Anthracene oil anthracene paste, distn. Lights, Anthracene oil anthracene paste anthracene fraction, Anthracene oil anthracene-low, Anthracene oil anthracene paste and Coal tar pitch high temperature has to be determined

3. $0.1\% = 1000\text{mg/kg} = 1000\text{ppm}$
4. MDL = Method Detection Limit
5. N.D. = Not Detected ($<\text{MDL}$)

—End of Report—

Annex A:

Classification	Definition under 671548/EEC and Regulation (EC) No 1907/2006
Carcinogen Category 1:	Substances known to be carcinogenic man. There is sufficient evidence to establish a causal association between human exposure to a substance and the development of cancer.
Carcinogen Category 2:	Substances which should be regarded as if they are carcinogenic to man. There is sufficient evidence to provide a strong presumption than human exposure to a substance may result in the development of cancer. Generally on the basis of: -appropriate long-term animal studies -other relevant information
Mutagen Category 1:	Substances known to be mutagenic to man. There is sufficient evidence to establish a causal association between human exposure to a substance and heritable genetic damage.
Mutagen Category 2:	Substances which should be regarded as if they are carcinogenic to man. There is sufficient evidence to provide a strong presumption than human exposure to the substance may result in the development of heritable genetic damage. Generally on the basis of: -appropriate animal studies, -other relevant information.
Toxic to Reproduction Category 1:	Substances known to impair fertility in humans, There is sufficient evidence to establish a causal relationship between human exposure to the substance and impaired fertility. Substances known to cause developmental toxicity in humans, There is sufficient evidence to establish a causal relationship between human exposure to the substance and subsequent developmental toxic effects in the progeny.
Toxic to Reproduction Category 2:	Substances which should be regarded as if they impair fertility in humans. There is sufficient evidence to provide a strong presumption that human exposure to the substance may result in impaired fertility on the basis of: -clear evidence in animal studies of impaired fertility in the absence of toxic effects or evidence of impaired fertility occurring at around the same dose levels as other toxic effects but which is not a secondary nonspecific consequence of the other toxic effects. -other relevant information. Substances which should be regarded as if they cause developmental toxicity to humans. There is sufficient evidence to provide a strong presumption that human exposure to the substance may result in developmental toxicity, generally on the basis of: -clear results in appropriate animal studies where effects have been observed in the absence of signs of marked maternal toxicity, or at around the same dose levels as other toxic effects but which are not a secondary non-specific consequence of the other toxic effects. -other relevant information.
PBT&vPvB:	Substances which are persistent, bloaccumulative and toxic(PBT) or very persistent and very bloaccumuiative (vPvB) pose a particular challenge to the chemicals safety management. For these substances a "safe" concentration in the environment cannot be established with sufficient reliability.

Annex B: Photo of Sample