

Applicant : UTIS

Address : 652-10, Choji-dong, Danwon-ku,

Ansan-city, Gyeonggi-do, Korea

Page: 1 of 5

Report No. RT10R-S4712-003-E

Date: Dec. 13, 2010

Sample Description : The following submitted sample(s) said to be:-

Name/Type of Product : eSORBA SRP-D Sample ID No. : RT10R-S4712-003

Item No. : SR A-DC, SR A-DA, SR A-DT, SR A-DN, SR C-DC, SR C-DA, SR C-DT, SR

C-DN

Manufacturer/Vender : UTIS

Sample received : Nov. 23, 2010

Testing Date : Nov. 23, 2010 ~ Nov. 29, 2010

Testing Environment : Temperature : (  $24 \pm 2$  )  $^{\circ}$ C, Humidity : (  $60 \pm 5$  )  $^{\circ}$ R.H.

Test Type : RoHS wet chemical analysis

Test Method(s) : Please see the following page(s).

Test Result(s) : Please see the following page(s).

Approved by, Authorized by,

Jade Jang / Lab. Technical Manager

Bo Park / Lab. General Manager

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<sup>\*</sup> Note 1 : The test results presented in this report relate only to the object tested.

<sup>\*</sup> Note 2: This report shall not be reproduced except in full without the written approval of the testing laboratory.

<sup>\*</sup> Note 3: The item no. is assigned by client and indicated according to their requirement and guarantee letter.



Page: 2 of 5 Date: Dec. 13, 2010

Report No. RT10R-S4712-003-E

Sample ID No.

: RT10R-S4712-003 Sample Description : eSORBA SRP-D

Cadmium (Cd)         mg/kg         With reference to IEC 62321 Edition 1.0 : 2008, by acid digestion and determined by ICP-OES         5         N.D.           Mercury (Hg)         mg/kg         With reference to IEC 62321 Edition 1.0 : 2008, by akid digestion and determined by ICP-OES         2         N.D.           Hexavalent Chromium (Cr 61)         mg/kg (For non-metal)         With reference to IEC 62321 Edition 1.0 : 2008, by alkaline digestion and determined by UV-VIS Spectrophotometer         1         N.D.           Polybrominated Biphenyl (PBBs)         mg/kg         5         N.D.           Monobromobiphenyl         mg/kg         5         N.D.           Pibromobiphenyl         mg/kg         5         N.D.           Pentabromobiphenyl         mg/kg         5         N.D.           Pentabromobiphenyl         mg/kg         5         N.D.           Hexabromobiphenyl         mg/kg         by solvent extraction and determined by GC/MS         5         N.D.           Hexabromobiphenyl         mg/kg         5         N.D.           Heptabromobiphenyl         mg/kg         5         N.D.           Octabromobiphenyl         mg/kg         5         N.D.           Nonabromodiphenyl ether         mg/kg         5         N.D.           Polybrominated Diphenyl ether	Test Item	Unit	Test Method	MDL	Result
Lead (Pb)   mg/kg   by acid digestion and determined by ICP-OES   2   N.D.	Cadmium (Cd)	mg/kg	IEC 62321 Edition 1.0 : 2008, by acid digestion and	0.5	N.D.
Mercury (Hg)       ng/kg       determined by ICP-OES       2       N.D.         Hexavalent Chromium (Cr 6+) (For non-metal)       ng/kg       With reference to IEC 62321 Edition 1.0 : 2008, by alkaline digestion and determined by UV-VIS Spectrophotometer       1       N.D.         Polybrominated Biphenyl (PBBs)       mg/kg       5       N.D.         Monobromobiphenyl       ng/kg       5       N.D.         Dibromobiphenyl       ng/kg       5       N.D.         Tribromobiphenyl       ng/kg       5       N.D.         Pentabromobiphenyl       ng/kg       5       N.D.         Hexabromobiphenyl       ng/kg       5       N.D.         Hexabromobiphenyl       ng/kg       5       N.D.         Heptabromobiphenyl       ng/kg       5       N.D.         Nonabromobiphenyl       ng/kg       5       N.D.         Nonabromobiphenyl       ng/kg       5       N.D.         Nonabromobiphenyl       ng/kg       5       N.D.         Polybrominated Diphenyl Ether (PBDEs)       5       N.D.         Monobromodiphenyl ether       ng/kg       5       N.D.         Tribromodiphenyl ether       ng/kg       5       N.D.         Pentabromodiphenyl ether       ng/kg </td <td>Lead (Pb)</td> <td>mg/kg</td> <td>5</td> <td>N.D.</td>	Lead (Pb)	mg/kg		5	N.D.
Hexavalent Chromium (Cr 6+) (For non-metal)   mg/kg	Mercury (Hg)	mg/kg		2	N.D.
Monobromobiphenyl mg/kg Dibromobiphenyl mg/kg Tribromobiphenyl mg/kg Tribromobiphenyl mg/kg Pentabromobiphenyl mg/kg Hexabromobiphenyl mg/kg Heptabromobiphenyl mg/kg Octabromobiphenyl mg/kg Dibromobiphenyl mg/kg Heptabromobiphenyl mg/kg Heptabromobiphenyl mg/kg Decabromobiphenyl mg/kg Polybrominated Diphenyl Ether (PBDEs) Monobromodiphenyl ether mg/kg Dibromodiphenyl ether mg/kg Tribromodiphenyl ether mg/kg Hexabromodiphenyl ether mg/kg Dibromodiphenyl ether mg/kg Hexabromodiphenyl ether mg/kg Octabromodiphenyl ether mg/kg Hozobromodiphenyl ether mg/kg Hozobromodiphenyl ether mg/kg Hozobromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg		mg/kg	IEC 62321 Edition 1.0 : 2008, by alkaline digestion and determined by UV-VIS	1	N.D.
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Tetrabromobiphenyl mg/kg Pentabromobiphenyl mg/kg Hexabromobiphenyl mg/kg Heptabromobiphenyl mg/kg Octabromobiphenyl mg/kg Nonabromobiphenyl mg/kg Decabromobiphenyl mg/kg Nonobromobiphenyl mg/kg Polybrominated Diphenyl Ether (PBDEs)  Monobromodiphenyl ether mg/kg Tribromodiphenyl ether mg/kg Pentabromodiphenyl ether mg/kg Hexabromodiphenyl ether mg/kg Polybrominated Diphenyl ether mg/kg Tribromodiphenyl ether mg/kg Hexabromodiphenyl ether mg/kg Hexabromodiphenyl ether mg/kg Heptabromodiphenyl ether mg/kg Nonobromodiphenyl ether mg/kg Heptabromodiphenyl ether mg/kg Nonobromodiphenyl ether mg/kg Hozoration 1.0 : 2008, 5 N.D.  IEC 62321 Edition 1.0 : 2008, 5 N.D.  IEC 62321 Edition 1.0 : 2008, 5 N.D.  Dibromodiphenyl ether mg/kg Hexabromodiphenyl ether mg/kg Heptabromodiphenyl ether mg/kg Nonobromodiphenyl ether mg/kg	Dibromobiphenyl	mg/kg		5	N.D.
Pentabromobiphenyl mg/kg Hexabromobiphenyl mg/kg Octabromobiphenyl mg/kg Nonabromobiphenyl mg/kg Decabromobiphenyl mg/kg Polybrominated Diphenyl ether mg/kg Dibromodiphenyl ether mg/kg Tribromodiphenyl ether mg/kg Pentabromodiphenyl ether mg/kg Hexabromodiphenyl ether mg/kg Polybrominated Diphenyl ether mg/kg Totabromodiphenyl ether mg/kg Hexabromodiphenyl ether mg/kg Horabromodiphenyl ether mg/kg Noctabromodiphenyl ether mg/kg	Tribromobiphenyl	mg/kg		5	N.D.
Pentabromobiphenylmg/kgIEC 62321 Edition 1.0 : 2008, by solvent extraction and determined by GC/MS5N.D.Heptabromobiphenylmg/kg5N.D.Octabromobiphenylmg/kg5N.D.Nonabromobiphenylmg/kg5N.D.Decabromobiphenylmg/kg5N.D.Polybrominated Diphenyl Ether (PBDEs)Monobromodiphenyl ethermg/kg5N.D.Dibromodiphenyl ethermg/kg5N.D.Tribromodiphenyl ethermg/kg5N.D.Pentabromodiphenyl ethermg/kgWith reference to IEC 62321 Edition 1.0 : 2008, by solvent extraction and determined by GC/MS5N.D.Heptabromodiphenyl ethermg/kg5N.D.Octabromodiphenyl ethermg/kg5N.D.Nonabromodiphenyl ethermg/kg5N.D.	Tetrabromobiphenyl	mg/kg	IEC 62321 Edition 1.0 : 2008, by solvent extraction and	5	N.D.
Heptabromobiphenyl   mg/kg   Octabromobiphenyl   mg/kg   Nonabromobiphenyl   mg/kg   S   N.D.	Pentabromobiphenyl	mg/kg		5	N.D.
Octabromobiphenyl mg/kg Nonabromobiphenyl mg/kg Decabromobiphenyl mg/kg  Decabromobiphenyl mg/kg  Decabromobiphenyl mg/kg  Folybrominated Diphenyl Ether (PBDEs)  Monobromodiphenyl ether mg/kg  Dibromodiphenyl ether mg/kg  Tribromodiphenyl ether mg/kg  Tetrabromodiphenyl ether mg/kg  Pentabromodiphenyl ether mg/kg  Hexabromodiphenyl ether mg/kg  Heptabromodiphenyl ether mg/kg  Octabromodiphenyl ether mg/kg  ND.  Dibromodiphenyl ether mg/kg  Mith reference to mg/kg  Uith reference to mg/kg  S N.D.  EC 62321 Edition 1.0 : 2008, by solvent extraction and determined by GC/MS  N.D.  Octabromodiphenyl ether mg/kg  N.D.  Nonabromodiphenyl ether mg/kg  N.D.	Hexabromobiphenyl	mg/kg		5	N.D.
Nonabromobiphenyl mg/kg  Decabromobiphenyl mg/kg  Pollybrominated Diphenyl Ether (PBDEs)  Monobromodiphenyl ether mg/kg  Dibromodiphenyl ether mg/kg  Tribromodiphenyl ether mg/kg  Tetrabromodiphenyl ether mg/kg  Pentabromodiphenyl ether mg/kg  Hexabromodiphenyl ether mg/kg  Heptabromodiphenyl ether mg/kg  Octabromodiphenyl ether mg/kg  Nonabromodiphenyl ether mg/kg	Heptabromobiphenyl	mg/kg		5	N.D.
Decabromobiphenyl mg/kg  Polybrominated Diphenyl Ether (PBDEs)  Monobromodiphenyl ether mg/kg  Dibromodiphenyl ether mg/kg  Tribromodiphenyl ether mg/kg  Tetrabromodiphenyl ether mg/kg  Pentabromodiphenyl ether mg/kg  Hexabromodiphenyl ether mg/kg  Heptabromodiphenyl ether mg/kg  Octabromodiphenyl ether mg/kg  Nonabromodiphenyl ether mg/kg	Octabromobiphenyl	mg/kg		5	N.D.
Polybrominated Diphenyl Ether (PBDEs)  Monobromodiphenyl ether mg/kg Dibromodiphenyl ether mg/kg Tribromodiphenyl ether mg/kg Tetrabromodiphenyl ether mg/kg Pentabromodiphenyl ether mg/kg Hexabromodiphenyl ether mg/kg Heptabromodiphenyl ether mg/kg Octabromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg	Nonabromobiphenyl	mg/kg		5	N.D.
Monobromodiphenyl ether mg/kg Dibromodiphenyl ether mg/kg Tribromodiphenyl ether mg/kg Tetrabromodiphenyl ether mg/kg Pentabromodiphenyl ether mg/kg Hexabromodiphenyl ether mg/kg Heptabromodiphenyl ether mg/kg Octabromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg	Decabromobiphenyl	mg/kg		5	N.D.
Dibromodiphenyl ether mg/kg Tribromodiphenyl ether mg/kg Tetrabromodiphenyl ether mg/kg Pentabromodiphenyl ether mg/kg Hexabromodiphenyl ether mg/kg Heptabromodiphenyl ether mg/kg Octabromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg	Polybrominated Diphenyl Ether (P	BDEs)			1
Tribromodiphenyl ether mg/kg Tetrabromodiphenyl ether mg/kg Pentabromodiphenyl ether mg/kg Hexabromodiphenyl ether mg/kg Heptabromodiphenyl ether mg/kg Octabromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg	Monobromodiphenyl ether	mg/kg	With reference to	5	N.D.
Tetrabromodiphenyl ether mg/kg Pentabromodiphenyl ether mg/kg Hexabromodiphenyl ether mg/kg Octabromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg	Dibromodiphenyl ether	mg/kg		5	N.D.
Pentabromodiphenyl ether mg/kg Hexabromodiphenyl ether mg/kg Heptabromodiphenyl ether mg/kg Octabromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg  Nonabromodiphenyl ether mg/kg  Nonabromodiphenyl ether mg/kg  Nonabromodiphenyl ether mg/kg		mg/kg		5	N.D.
Hexabromodiphenyl ethermg/kgby solvent extraction and determined by GC/MS5N.D.Heptabromodiphenyl ethermg/kg5N.D.Octabromodiphenyl ethermg/kg5N.D.Nonabromodiphenyl ethermg/kg5N.D.		mg/kg		5	N.D.
Heptabromodiphenyl ether mg/kg Octabromodiphenyl ether mg/kg Nonabromodiphenyl ether mg/kg  Nonabromodiphenyl ether mg/kg  Nonabromodiphenyl ether mg/kg		mg/kg			N.D.
Octabromodiphenyl ether mg/kg  Nonabromodiphenyl ether mg/kg  S N.D.  Nonabromodiphenyl ether mg/kg  S N.D.	, ,	mg/kg			N.D.
Nonabromodiphenyl ether mg/kg 5 N.D.		mg/kg			
' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	, -	mg/kg			N.D.
Decabromodiphenyl ether mg/kg 5 N.D.		mg/kg			N.D.
	Decabromodiphenyl ether	mg/kg		5	N.D.

Tested by: Nikkie Lee, Leo Kim, Ellen Jung, Jessica Kang

Notes: mg/kg = ppm = parts per million

< = Less than

N.D. = Not detected ( < MDL )MDL = Method detection limit

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Page: 3 of 5 Date: Dec. 13, 2010

Sample ID No. : RT10R-S4712-003 Sample Description : eSORBA SRP-D

Report No. RT10R-S4712-003-E

Test Item	Unit	Test Method	MDL	Result
Bromine (Br)	mg/kg	With reference to EN 14582, by oxygen combustion with bomb and determined by IC	30	N.D.
Chlorine (CI)	mg/kg	With reference to EN 14582, by oxygen combustion with bomb and determined by IC	30	N.D.
Fluorine (F)	mg/kg	With reference to EN 14582, by oxygen combustion with bomb and determined by IC	30	N.D.
lodine (I)	mg/kg	With reference to EN 14582, by oxygen combustion with bomb and determined by IC	30	N.D.

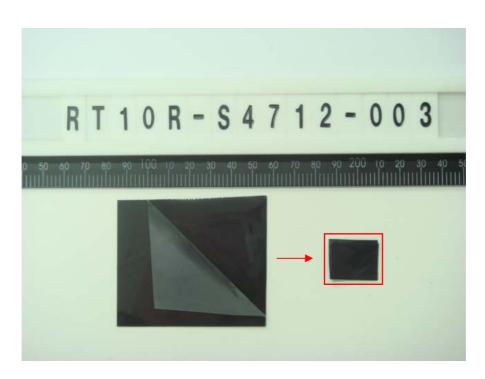
Tested by: Nikkie Lee

Notes: mg/kg = ppm = parts per million

< = Less than

N.D. = Not detected ( <MDL) MDL = Method detection limit

<sup>\*</sup> View of sample as received;-



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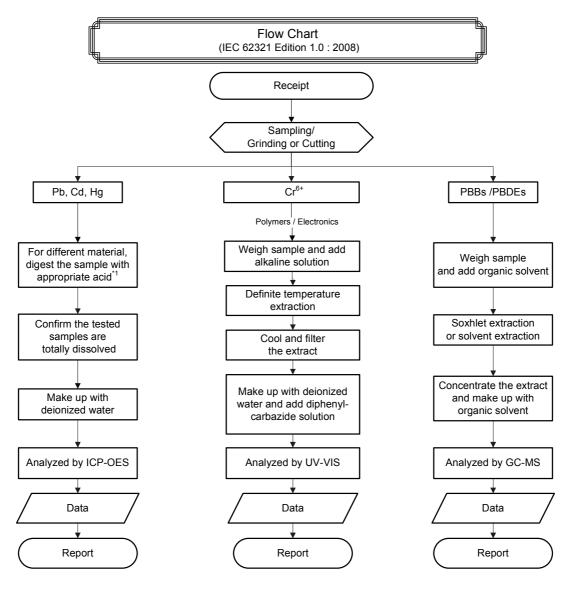
#### Intertek Testing Services Korea Ltd.



Page: 4 of 5

Report No. RT10R-S4712-003-E Date: Dec. 13, 2010

Sample ID No. : RT10R-S4712-003 Sample Description : eSORBA SRP-D



#### Remarks:

#### \*1 : List of appropriate acid :

Material	Acid added for digestion
Polymers	HNO <sub>3,</sub> HCI, HF, H <sub>2</sub> O <sub>2</sub> , H <sub>3</sub> BO <sub>3</sub>
Metals	HNO <sub>3</sub> , HCI, HF
Electronics	HNO <sub>3</sub> , HCI, H <sub>2</sub> O <sub>2</sub> , HBF <sub>4</sub>

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#### Intertek Testing Services Korea Ltd.

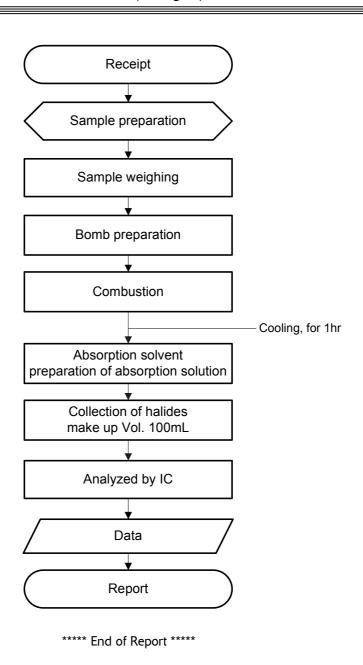


Page: 5 of 5

Report No. RT10R-S4712-003-E Date: Dec. 13, 2010

Sample ID No. : RT10R-S4712-003 Sample Description : eSORBA SRP-D

### Flow Chart (Halogen)



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