

Applicant : Alpha Korea Ltd.

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Report No. RT15R-S3931-002-E1 Date: Aug. 28, 2015

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

Name/Type of Product : SOLDER PASTE OM340-SL SAC305

Sample ID No. : RT15R-S3931-002 Manufacturer/Vendor : Alpha Korea Ltd.

Sample received : Aug. 25, 2015

Testing Date : Aug. 25, 2015 ~ Aug. 28, 2015

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

mes

Authenticity check

Bo Park / Lab. General Manager

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^{*} Note 1: The test results presented in this report relate only to the object tested.

^{*} Note 2: This report shall not be reproduced except in full without the written approval of the testing laboratory.



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Report No. RT15R-S3931-002-E1 Date: Aug. 28, 2015

Sample ID No. : RT15R-S3931-002

Sample Description : SOLDER PASTE OM340-SL SAC305

| Test Item | Unit | Test Method | MDL | Result |
|--|-------|--|-----|--------|
| Cadmium (Cd) | mg/kg | With reference to IEC 62321-5 Edition 1.0 : | 0.5 | N.D. |
| Lead (Pb) | mg/kg | 2013, by acid digestion and determined by ICP-OES | 5 | 85 |
| Mercury (Hg) | mg/kg | With reference to IEC 62321-4 Edition 1.0 : 2013, by acid digestion and determined by ICP-OES | 2 | N.D. |
| Hexavalent Chromium (Cr ⁶⁺) (For non-metal) | mg/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) | | | | |
| Monobromobiphenyl | mg/kg | With reference to IEC 62321-6 Edition 1.0 : 2015, by solvent extraction and determined by GC/MS | 5 | N.D. |
| Dibromobiphenyl | mg/kg | | 5 | N.D. |
| Tribromobiphenyl | mg/kg | | 5 | N.D. |
| Tetrabromobiphenyl | mg/kg | | 5 | N.D. |
| Pentabromobiphenyl | mg/kg | | 5 | N.D. |
| Hexabromobiphenyl | mg/kg | | 5 | N.D. |
| Heptabromobiphenyl | mg/kg | | 5 | N.D. |
| Octabromobiphenyl | mg/kg | | 5 | N.D. |
| Nonabromobiphenyl | mg/kg | | 5 | N.D. |
| Decabromobiphenyl | mg/kg | | 5 | N.D. |
| Polybrominated Diphenyl Ether (P | | | | |
| Monobromodiphenyl ether | mg/kg | With reference to IEC 62321-6 Edition 1.0: 2015, by solvent extraction and determined by GC/MS | 5 | N.D. |
| Dibromodiphenyl ether | mg/kg | | 5 | N.D. |
| Tribromodiphenyl ether | mg/kg | | 5 | N.D. |
| Tetrabromodiphenyl ether | mg/kg | | 5 | N.D. |
| Pentabromodiphenyl ether | mg/kg | | 5 | N.D. |
| Hexabromodiphenyl ether | mg/kg | | 5 | N.D. |
| Heptabromodiphenyl ether | mg/kg | | 5 | N.D. |
| Octabromodiphenyl ether | mg/kg | | 5 | N.D. |
| Nonabromodiphenyl ether | mg/kg | | 5 | N.D. |
| Decabromodiphenyl ether | mg/kg | | 5 | N.D. |

Tested by: Chanoh Kim, Hyojoo Kim, Hyoji Lee

Notes: mg/kg = ppm = parts per million

 \leq = Less than

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

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Intertek Testing Services Korea Ltd.

Ulsan Lab. Address: 34, Yongam-gil, Chongryang-myeon, Ulju-gun, Ulsan 689-865 Korea



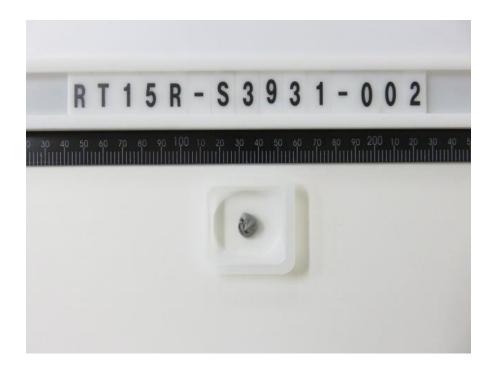
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Report No. RT15R-S3931-002-E1 Date: Aug. 28, 2015

Sample ID No. : RT15R-S3931-002

Sample Description : SOLDER PASTE OM340-SL SAC305

* View of sample as received;-



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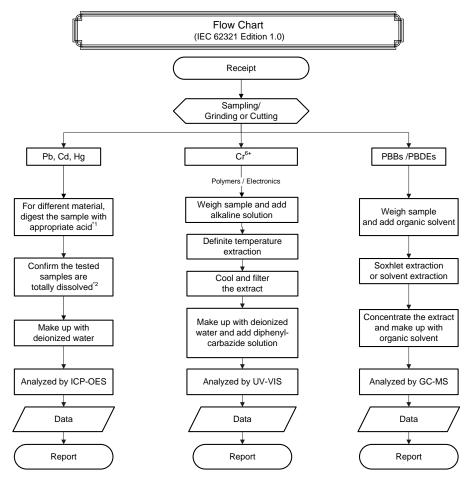


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Report No. RT15R-S3931-002-E1 Date: Aug. 28, 2015

Sample ID No. : RT15R-S3931-002

Sample Description : SOLDER PASTE OM340-SL SAC305



Remarks:

*1 : List of appropriate acid :

| Material | Acid added for digestion |
|-------------|---|
| Polymers | HNO _{3,} HCI, HF, H ₂ O ₂ , H ₃ BO ₃ |
| Metals | HNO ₃ , HCI, HF |
| Electronics | HNO ₃ , HCI, H ₂ O ₂ , HBF ₄ |

^{*2:} The samples were dissolved totally by pre-conditioning method according to above flow chart.

***** End of Report *****

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