

**TEST REPORT:**

No. CRSSA/190101392-CA00897  
Job Ref. CRS/2018-12-25-011

**REPORTED DATE:** 02/01/2019**CROWN EMPEROR LIMITED**

ROOM 2101, HONG KONG TRADE CENTRE,  
161-7 DES VOEUX CENTRAL, HONG KONG

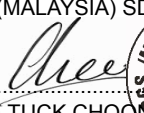
The following sample(s) was/were submitted and identified by/on behalf of applicant as:

SAMPLE DESCRIPTION : SNTITE-24, 99.9% PURE TIN ANODE  
SAMPLE RECEIVED : 26/12/2018  
TESTING PERIOD : 25/12/2018 to 31/12/2018

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TEST REQUESTED : Selected test(s) as requested by customer  
TEST METHOD : -PLEASE REFER TO NEXT PAGE(S)-  
TEST RESULTS : -PLEASE REFER TO NEXT PAGE(S)-

SIGNED FOR AND ON BEHALF OF  
SGS (MALAYSIA) SDN BHD

  
CHEE TUCK CHOON  
SECTION HEAD  
IKM NO. M/3983/6401/12/14



Test Report Form No.: SGS/TR/CRS/001, Ver: 1.0, Effective Date: 03/12/2018

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**TEST RESULTS:**
**Test Part Description**

 Sample Description: SNTITE-24, 99.9% PURE TIN ANODE  
 RoHS Directive 2011/65/EU Annex II

Test Item(s):	Unit	Test Method	Result	MDL	Limit
Cadmium (Cd)	mg/kg	With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.	Not Detected	2	Max 100
Lead (Pb)	mg/kg	With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.	218	2	Max 1000
Mercury (Hg)	mg/kg	With reference to IEC 62321-4:2013+A1:2017, determination of Mercury by ICP-OES.	Not Detected	2	Max 1000
Hexavalent Chromium (CrVI)	µg/cm <sup>2</sup>	With reference to IEC 62321-7-1:2015, determination of Hexavalent Chromium by Colorimetric Method using UV-Vis.	Not Detected	0.10	-
Sum of PBBs	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	Max 1000
Monobromobiphenyl	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Dibromobiphenyl	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Tribromobiphenyl	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Tetrabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Pentabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Hexabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Heptabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Octabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Nonabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Decabromobiphenyl	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-

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**Test Part Description**

Sample Description: SNTITE-24, 99.9% PURE TIN ANODE

RoHS Directive 2011/65/EU Annex II

Test Item(s):	Unit	Test Method	Result	MDL	Limit
Sum of PBDEs	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	Max 1000
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Dibromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Tribromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Tetrabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Pentabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Hexabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Heptabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Octabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Nonabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-
Decabromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.	N.D(<5)	5	-



- Note :
- (a) mg/kg = ppm ; (0.1wt% = 1000ppm)
  - (b) N.D. = Not Detected
  - (c) MDL = Method Detection Limit
  - (d) - = Not regulated

- (e) a. The sample is positive for CrVI if the CrVI concentration is greater than 0.13  $\mu\text{g}/\text{cm}^2$ . The sample coating is considered to contain CrVI.
- b. The sample is negative for CrVI if CrVI is N.D. (concentration less than 0.10  $\mu\text{g}/\text{cm}^2$ ). The coating is considered a non-CrVI based coating.
- c. The result between 0.10  $\mu\text{g}/\text{cm}^2$  and 0.13  $\mu\text{g}/\text{cm}^2$  is considered to be inconclusive - unavoidable coating variations may influence the determination.

For corrosion protection coatings on metals: Information on storage conditions and production date of the tested

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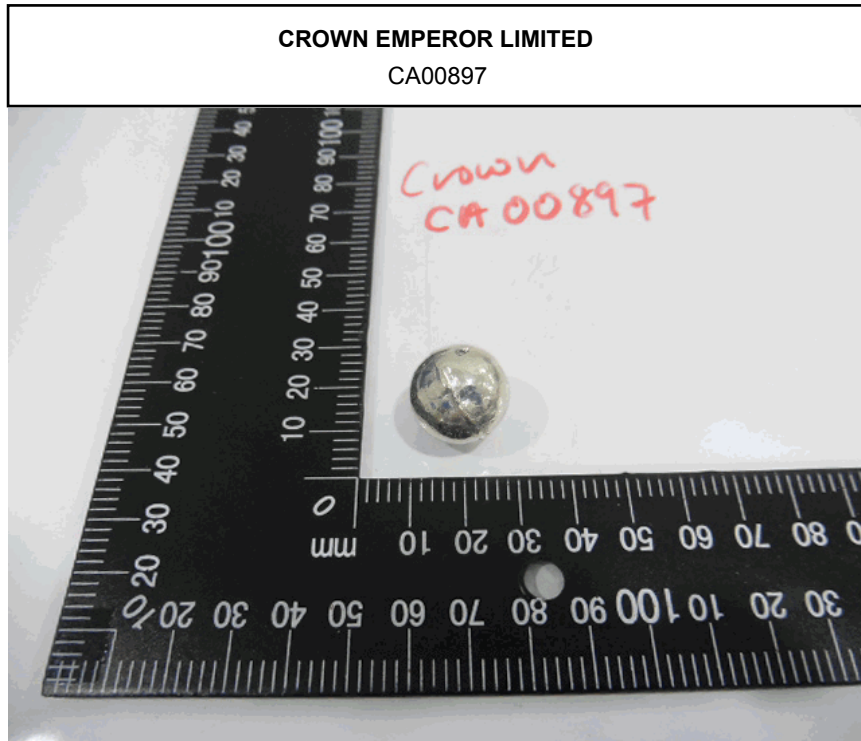
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SGS authenticate the photo on original report only

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\*\*\* End of test report \*\*\*

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