

Test Report No.: 68.431.21.01999.01

Dated: 2021-09-02



Applicant : Spector & Co

Address : /

Sample Description : Ballpoint pen

Item No. : G3058

Style No. : OMNI

Supplier : USN006

Country of Origin : CANADA

Country of Destination : CANADA & U.S.A.

Test Sample Receipt Date, Location : 2021-03-31, 2021-05-11, 2021-05-14, 2021-06-02,
2021-06-30, 2021-08-27, Shenzhen

Test Period, Location : From 2021-03-31 to 2021-09-02, Shenzhen

Test Result(s) : Refer to Section 3

Laboratory:
TÜV SÜD Certification and Testing (China)
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Purpose Of Examination / Conclusion:

No.	Test Item(s)	Conclusion
1.	US California Proposition 65 - Total Cadmium Content Test - Substrate Materials	Pass*
2.	US California Proposition 65 - Total Cadmium Content Test - Paint and Similar Surface-Coating Materials	Pass*
3.	US California Proposition 65 - Total Lead Content Test - Substrate Materials	Pass*
4.	US California Proposition 65 - Total Lead Content Test - Paint and Similar Surface-Coating Materials	Pass*
5.	Canadian Consumer Products Containing Lead Regulations SOR/2018-83 - Total Lead Content Test	Pass*
6.	Canadian Surface Coating Materials Regulations SOR/2016-193 - Total Lead Content Test	Pass
7.	Phthalates Content (11P)	Pass*
8.	US California Proposition 65 - Phthalates Content (6P)	Pass*
9.	U.S. CFR Title 16 Part 1307 - Toys and Childcare Articles - Phthalates Content (8P)	Pass
10.	Tungsten Content Test	Report As Is
11.	Canadian Surface Coating Materials Regulations SOR/2016-193 - Total Mercury Content Test	Pass
12.	Nickel Content Test	Report As Is

Remarks:

- (1) The results relate only to the items tested.
- (2) Samples are tested as received.
- (3) "*" denotes the conclusion was drawn according to the client's specification.
- (4) The test item and samples were specified by the client.
- (5) "Pass" means the measured result is within a limit, even when extended by expanded uncertainty. "Fail" means the measured result is beyond a limit, even when extended by expanded uncertainty. "Inconclusive" means the measured result can be within or beyond a limit when extended by expanded uncertainty. The confidence level of the expanded uncertainty for "pass", "Fail" and "Inconclusive" is 95%.
- (6) "N.D." denotes below the Report Limit

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TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
TÜV SÜD Group

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1. Description of the Test Sample:

Sample Description	Ballpoint pen
	



2. List of Materials as identified by the Laboratory:

T. No.	Sample No.	Colour and Description	Photograph
T1	001	White / transparent coating (Barrel)	
T2	002	Silvery / transparent coating (Barrel)	
T3	003	Red / transparent coating (Barrel)	
T4	004	Dark blue / transparent coating (Barrel)	
T5	005	Black / transparent coating (Barrel)	
T6	006	Black soft plastic (Grip)	
T7	007	Silvery plated white plastic (Top & end of pen)	
T8	008	Black plastic (Tube)	
T9	009	Black plastic (End of pen)	
T10	010	White plastic (Parts)	
T11	011	Silvery metal (Ring)	
T12	012	Silvery metal (Clip)	
T13	013	Silvery metal (Short spring)	
T14	014	Silvery metal (Long spring)	
T15	015	Silvery metal (Tip of refill)	
T16	016	Silvery metal (Ball of refill)	

T. No.	Sample No.	Colour and Description	Photograph
T17	017	Grey plastic (Refill)	
T18	018	Black plastic (Refill)	
T19	019	Black ink (Ink)	
T20	020	Silvery metal (Barrel)	

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3. Test Result

3.1 US California Proposition 65 - Total Cadmium Content Test - Substrate Materials

Test method: Acid digestion/Microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

Sample No	CAS No.	Results [mg/kg]	Client's Specification [mg/kg]	Conclusion
006	7440-43-9	N.D.	<75	Pass
007+008+009	7440-43-9	N.D.	<75	Pass
010+017+018	7440-43-9	N.D.	<75	Pass
011	7440-43-9	N.D.	<75	Pass
012	7440-43-9	N.D.	<75	Pass
013	7440-43-9	N.D.	<75	Pass
014	7440-43-9	N.D.	<75	Pass
015	7440-43-9	N.D.	<75	Pass
016	7440-43-9	N.D.	<75	Pass
020	7440-43-9	N.D.	<75	Pass

Note 1. "mg/kg" denotes milligram per kilogram
 2. "<" denotes less than

3.2 US California Proposition 65 - Total Cadmium Content Test - Paint and Similar Surface-Coating Materials

Test method: Microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

Sample No	CAS No.	Results [mg/kg]	Client's Specification [mg/kg]	Conclusion
001	7440-43-9	N.D.	<75	Pass
002	7440-43-9	N.D.	<75	Pass
003	7440-43-9	N.D.	<75	Pass
004	7440-43-9	N.D.	<75	Pass
005	7440-43-9	N.D.	<75	Pass
019	7440-43-9	N.D.	<75	Pass

Note 1. "mg/kg" denotes milligram per kilogram
 2. "<" denotes less than



3.3 US California Proposition 65 - Total Lead Content Test - Substrate Materials

Test method: Acid digestion or Microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

Sample No	CAS No.	Result [mg/kg]	Client's Specification [mg/kg]	Conclusion
006	7439-92-1	N.D.	<100	Pass
007+008+009	7439-92-1	N.D.	<100	Pass
010+017+018	7439-92-1	N.D.	<100	Pass
011*	7439-92-1	72.5	<100	Pass
012	7439-92-1	36.0	<100	Pass
013	7439-92-1	33.4	<100	Pass
014	7439-92-1	34.6	<100	Pass
015	7439-92-1	24.1	<100	Pass
016	7439-92-1	N.D.	<100	Pass
020	7439-92-1	78.1	<100	Pass

- Note 1. "mg/kg" denotes milligram per kilogram
 2. "<" denotes less than
 3. "*" denotes sample was received on 2021- 08-27 after improved by the client.

3.4 US California Proposition 65 - Total Lead Content Test - Paint and Similar Surface-Coating Materials

Test method: Microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

Sample No	CAS No.	Result [mg/kg]	Client's Specification [mg/kg]	Conclusion
001	7439-92-1	N.D.	<90	Pass
002	7439-92-1	N.D.	<90	Pass
003	7439-92-1	N.D.	<90	Pass
004	7439-92-1	N.D.	<90	Pass
005	7439-92-1	N.D.	<90	Pass
019	7439-92-1	N.D.	<90	Pass

- Note 1. "mg/kg" denotes milligram per kilogram
 2. "<" denotes less than

3.5 Total Lead Content Test

Consumer Products Containing Lead Regulations SOR/2018-83
 Acid digestion / Microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

Sample No	CAS No.	Result [mg/kg]	Limit [mg/kg]	Conclusion
001	7439-92-1	N.D.	<90	Pass
002	7439-92-1	N.D.	<90	Pass
003	7439-92-1	N.D.	<90	Pass
004	7439-92-1	N.D.	<90	Pass
005	7439-92-1	N.D.	<90	Pass
006	7439-92-1	N.D.	<90	Pass
007+008+009	7439-92-1	N.D.	<90	Pass
010+017+018	7439-92-1	N.D.	<90	Pass
011*	7439-92-1	72.5	<90	Pass
012	7439-92-1	36.0	<90	Pass
013	7439-92-1	33.4	<90	Pass
014	7439-92-1	34.6	<90	Pass
015	7439-92-1	24.1	<90	Pass
016	7439-92-1	N.D.	<90	Pass
019	7439-92-1	N.D.	<90	Pass
020	7439-92-1	78.1	<90	Pass

- Note 1. "mg/kg" denotes milligram per kilogram
 2. "<" denotes less than
 3. "*" denotes sample was received on 2021- 08-27 after improved by the client.

3.6 Total Lead Content Test

Surface Coating Materials Regulations SOR/2016-193
 Microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

Sample No	CAS No.	Result [mg/kg]	Limit [mg/kg]	Conclusion
001	7439-92-1	N.D.	<90	Pass
002	7439-92-1	N.D.	<90	Pass
003	7439-92-1	N.D.	<90	Pass
004	7439-92-1	N.D.	<90	Pass
005	7439-92-1	N.D.	<90	Pass
019	7439-92-1	N.D.	<90	Pass

- Note 1. "mg/kg" denotes milligram per kilogram
 2. "<" denotes less than

3.7 Phthalates Content (11P)

Test method: In-house method, solvent extracted and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting limit: 0.005%]

Phthalates	CAS No.	Results [%]			Client's Specification [%]
		Sample 001	Sample 002	Sample 003	
DEHP, Di-(2-ethylhexyl)-phthalat	117-81-7	N.D.	N.D.	N.D.	<0.1
DBP, Dibutylbenzylphthalat	84-74-2	N.D.	N.D.	N.D.	<0.1
DEP, Diethyl phthalate	84-66-2	N.D.	N.D.	N.D.	<0.1
BBP, Butylbenzylphthalat	85-68-7	N.D.	N.D.	N.D.	<0.1
DIBP, Di-iso-butylphthalat	84-69-5	N.D.	N.D.	N.D.	<0.1
DINP, Di-isononyl phthalate	28553-12-0 , 68515-48-0	N.D.	N.D.	N.D.	<0.1
DIDP, Di-isodecylphthalat	26761-40-0 , 68515-49-1	N.D.	N.D.	N.D.	<0.1
DNOP, Di-n-octylphthalat	117-84-0	N.D.	N.D.	N.D.	<0.1
DnHP, Di-n-hexyl phthalate	84-75-3	N.D.	N.D.	N.D.	<0.1
DCHP, Dicyclohexyl phthalate	84-61-7	N.D.	N.D.	N.D.	<0.1
DNPP, Di-n-pentylphthalat	131-18-0	N.D.	N.D.	N.D.	<0.1
Conclusion		Pass	Pass	Pass	-

Note 1. "<" denotes less than
2. "%" denotes percentage by weight .

3.7 Phthalates Content (11P)

Test method: In-house method, solvent extracted and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting limit: 0.005%]

Phthalates	CAS No.	Results [%]			Client's Specification [%]
		Sample 004	Sample 005	Sample 006	
DEHP, Di-(2-ethylhexyl)-phthalat	117-81-7	N.D.	N.D.	N.D.	<0.1
DBP, Dibutylbenzylphthalat	84-74-2	N.D.	N.D.	N.D.	<0.1
DEP, Diethyl phthalate	84-66-2	N.D.	N.D.	N.D.	<0.1
BBP, Butylbenzylphthalat	85-68-7	N.D.	N.D.	N.D.	<0.1
DIBP, Di-iso-butylphthalat	84-69-5	N.D.	N.D.	N.D.	<0.1
DINP, Di-isononyl phthalate	28553-12-0 , 68515-48-0	N.D.	N.D.	N.D.	<0.1
DIDP, Di-isodecylphthalat	26761-40-0 , 68515-49-1	N.D.	N.D.	N.D.	<0.1
DNOP, Di-n-octylphthalat	117-84-0	N.D.	N.D.	N.D.	<0.1
DnHP, Di-n-hexyl phthalate	84-75-3	N.D.	N.D.	N.D.	<0.1
DCHP, Dicyclohexyl phthalate	84-61-7	N.D.	N.D.	N.D.	<0.1
DNPP, Di-n-pentylphthalat	131-18-0	N.D.	N.D.	N.D.	<0.1
Conclusion		Pass	Pass	Pass	-

Note 1. "<" denotes less than

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3.7 Phthalates Content (11P)

Test method: In-house method, solvent extracted and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting limit: 0.005%]

Phthalates	CAS No.	Results [%]			Client's Specification [%]
		Sample 007+008 +009	Sample 010+017 +018	Sample 019	
DEHP, Di-(2-ethylhexyl)-phthalat	117-81-7	N.D.	N.D.	N.D.	<0.1
DBP, Dibutylbenzylphthalat	84-74-2	N.D.	N.D.	N.D.	<0.1
DEP, Diethyl phthalate	84-66-2	N.D.	N.D.	N.D.	<0.1
BBP, Butylbenzylphthalat	85-68-7	N.D.	N.D.	N.D.	<0.1
DIBP, Di-iso-butylphthalat	84-69-5	N.D.	N.D.	N.D.	<0.1
DINP, Di-isononyl phthalate	28553-12-0 , 68515-48-0	N.D.	N.D.	N.D.	<0.1
DIDP, Di-isodecylphthalat	26761-40-0 , 68515-49-1	N.D.	N.D.	N.D.	<0.1
DNOP, Di-n-octylphthalat	117-84-0	N.D.	N.D.	N.D.	<0.1
DnHP, Di-n-hexyl phthalate	84-75-3	N.D.	N.D.	N.D.	<0.1
DCHP, Dicyclohexyl phthalate	84-61-7	N.D.	N.D.	N.D.	<0.1
DNPP, Di-n-pentylphthalat	131-18-0	N.D.	N.D.	N.D.	<0.1
Conclusion		Pass	Pass	Pass	-

Note 1. "<" denotes less than

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3.8 US California Proposition 65 - Phthalates Content (6P)

Test method: In-house method, solvent extracted and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting limit: 0.005%]

Phthalates	CAS No.	Results [% w/w]			Client's Specification [% w/w]
		Sample 001	Sample 002	Sample 003	
Dibutyl phthalate, (DBP)	84-74-2	N.D.	N.D.	N.D.	<0.1
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	N.D.	N.D.	N.D.	<0.1
Benzyl butyl phthalate, (BBP)	85-68-7	N.D.	N.D.	N.D.	<0.1
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	N.D.	N.D.	N.D.	<0.1
Di-n-hexyl phthalate (DNHP)	84-75-3	N.D.	N.D.	N.D.	<0.1
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	N.D.	N.D.	N.D.	<0.1
Conclusion		Pass	Pass	Pass	-

Phthalates	CAS No.	Results [% w/w]			Client's Specification [% w/w]
		Sample 004	Sample 005	Sample 006	
Dibutyl phthalate, (DBP)	84-74-2	N.D.	N.D.	N.D.	<0.1
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	N.D.	N.D.	N.D.	<0.1
Benzyl butyl phthalate, (BBP)	85-68-7	N.D.	N.D.	N.D.	<0.1
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	N.D.	N.D.	N.D.	<0.1
Di-n-hexyl phthalate (DNHP)	84-75-3	N.D.	N.D.	N.D.	<0.1
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	N.D.	N.D.	N.D.	<0.1
Conclusion		Pass	Pass	Pass	-

Note 1. "<" denotes less than

2. "%" denotes percentage by weight

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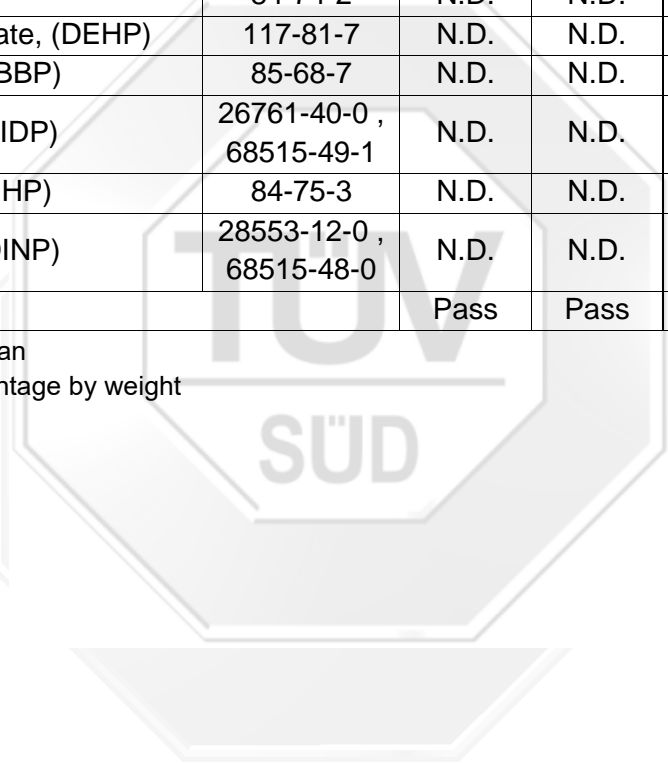


3.8 US California Proposition 65 - Phthalates Content (6P)

Test method: In-house method, solvent extracted and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting limit: 0.005%]

Phthalates	CAS No.	Results [% w/w]			Client's Specification [% w/w]
		Sample 007+008 +009	Sample 010+017 +018	Sample 019	
Dibutyl phthalate, (DBP)	84-74-2	N.D.	N.D.	N.D.	<0.1
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	N.D.	N.D.	N.D.	<0.1
Benzyl butyl phthalate, (BBP)	85-68-7	N.D.	N.D.	N.D.	<0.1
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	N.D.	N.D.	N.D.	<0.1
Di-n-hexyl phthalate (DNHP)	84-75-3	N.D.	N.D.	N.D.	<0.1
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	N.D.	N.D.	N.D.	<0.1
Conclusion		Pass	Pass	Pass	-

Note 1. "<" denotes less than
 2. "%" denotes percentage by weight



3.9 U.S. CFR Title 16 Part 1307 - Toys and Childcare Articles - Phthalates Content (8P)
 CPSC-CH-C1001-09.4 – Standard Operating Procedure for Determination of Phthalates
 [Reporting Limit = 0.005%]

Phthalates	CAS No.	Results [%]			Limit [%]
		Sample 001	Sample 002	Sample 003	
Dibutyl phthalate, (DBP)	84-74-2	N.D.	N.D.	N.D.	<0.1
Benzyl butyl phthalate, (BBP)	85-68-7	N.D.	N.D.	N.D.	<0.1
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	N.D.	N.D.	N.D.	<0.1
Diisobutylphthalate, (DIBP)	84-69-5	N.D.	N.D.	N.D.	<0.1
Di-n-hexyl phthalate (DHEXP)	84-75-3	N.D.	N.D.	N.D.	<0.1
Dicyclohexyl phthalate (DCHP)	84-61-7	N.D.	N.D.	N.D.	<0.1
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	N.D.	N.D.	N.D.	<0.1
Di-n-pentyl phthalates (DPENP)	131-18-0	N.D.	N.D.	N.D.	<0.1
Conclusion		Pass	Pass	Pass	-

Phthalates	CAS No.	Results [%]			Limit [%]
		Sample 004	Sample 005	Sample 006	
Dibutyl phthalate, (DBP)	84-74-2	N.D.	N.D.	N.D.	<0.1
Benzyl butyl phthalate, (BBP)	85-68-7	N.D.	N.D.	N.D.	<0.1
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	N.D.	N.D.	N.D.	<0.1
Diisobutylphthalate, (DIBP)	84-69-5	N.D.	N.D.	N.D.	<0.1
Di-n-hexyl phthalate (DHEXP)	84-75-3	N.D.	N.D.	N.D.	<0.1
Dicyclohexyl phthalate (DCHP)	84-61-7	N.D.	N.D.	N.D.	<0.1
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	N.D.	N.D.	N.D.	<0.1
Di-n-pentyl phthalates (DPENP)	131-18-0	N.D.	N.D.	N.D.	<0.1
Conclusion		Pass	Pass	Pass	-

- Note 1. "<" denotes less than
 2. "%" denotes percentage by weight.



3.9 U.S. CFR Title 16 Part 1307 - Toys and Childcare Articles - Phthalates Content (8P)
 CPSC-CH-C1001-09.4 – Standard Operating Procedure for Determination of Phthalates
 [Reporting Limit = 0.005%]

Phthalates	CAS No.	Results [%]			Limit [%]
		Sample 007+008 +009	Sample 010+017 +018	Sample 019	
Dibutyl phthalate, (DBP)	84-74-2	N.D.	N.D.	N.D.	<0.1
Benzyl butyl phthalate, (BBP)	85-68-7	N.D.	N.D.	N.D.	<0.1
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	N.D.	N.D.	N.D.	<0.1
Diisobutylphthalate, (DIBP)	84-69-5	N.D.	N.D.	N.D.	<0.1
Di-n-hexyl phthalate (DHEXP)	84-75-3	N.D.	N.D.	N.D.	<0.1
Dicyclohexyl phthalate (DCHP)	84-61-7	N.D.	N.D.	N.D.	<0.1
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	N.D.	N.D.	N.D.	<0.1
Di-n-pentyl phthalates (DPENP)	131-18-0	N.D.	N.D.	N.D.	<0.1
Conclusion		Pass	Pass	Pass	-

Note 1. "<" denotes less than
 2. "%" denotes percentage by weight.



3.10 Tungsten Content Test

Test method: EPA 3050B:1996, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

Test Item	Results [mg/kg]	Client's Specification [mg/kg]
	Sample 014	
Tungsten	N.D.	-
Conclusion	Report As Is	-

Note:

- "mg/kg" denotes milligram per kilogram
- "<" denotes less than



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3.11 Total Mercury Content Test

Surface Coating Materials Regulations SOR/2016-193

Microwave Digestion, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 10.0mg/kg]

Test Item	Results [mg/kg]			Limit [mg/kg]
	Sample 001	Sample 002	Sample 003	
Mercury	N.D.	N.D.	N.D.	<10
Conclusion	Pass	Pass	Pass	-

Test Item	Results [mg/kg]			Limit [mg/kg]
	Sample 004	Sample 005	Sample 019	
Mercury	N.D.	N.D.	N.D.	<10
Conclusion	Pass	Pass	Pass	-

- Note 1. "mg/kg" denotes milligram per kilogram
 2. "<" denotes less than



3.12 Nickel Content Test

Test method: Acid digestion and analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). [Reporting Limit: 5.0mg/kg]

Test Item	Results [mg/kg]			Client's Specification [mg/kg]
	Sample 011	Sample 012	Sample 013	
Nickel	25925.93	53.00	121.82	-
Conclusion	Report As Is	Report As Is	Report As Is	-

Test Item	Results [mg/kg]			Client's Specification [mg/kg]
	Sample 014	Sample 015	Sample 016	
Nickel	210.90	23.39	606.42	-
Conclusion	Report As Is	Report As Is	Report As Is	-

Test Item	Results [mg/kg]	Client's Specification [mg/kg]
	Sample 020	
Nickel	22.94	-
Conclusion	Report As Is	-

Note:

- "mg/kg" denotes milligram per kilogram
- "<" denotes less than

-- END OF TEST REPORT--

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