

Test Report

No. CANEC2304439901

Date: 31 Mar 2023

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Client Name : NANJING QINHENG MICROELECTRONICS CO., LTD.

Client Address : NO.18, NINGSHUANG ROAD, NANJING

Sample Name : IC
 Model No. : CH334U
 Client Ref. Info. : Please see REMARK
 Lot No. : 31163HC47
 The above sample(s) and information were provided by the client.

SGS Job No. : CP23-013954 - SZ
 Date of Sample Received : 27 Mar 2023
 Testing Period : 27 Mar 2023 - 31 Mar 2023
 Test Requested : Selected test(s) as requested by the client.
 Test Method(s) : Please refer to next page(s).
 Test Result(s) : Please refer to next page(s).

Result Summary :

Test Requested	Conclusion
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	PASS
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium and Hexavalent chromium	PASS

Signed for and on behalf of
 SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Jessie Li

Jessie Li
 Approved Signatory

scan to see the report



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Test Result(s) :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	CAN23-044399.001	Silvery metal pin(semi-product)
SN2	CAN23-044399.002	Black material with brown printing(semi-product)
SN3	CAN23-044399.003	Silvery/copper-colored metal sheet(semi-product)

Remarks :

- (1) 1 mg/kg = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) "-" = Not Regulated

EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)

Test Method : With reference to IEC 62321-4:2013+A1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017 , IEC 62321-6:2015 and IEC 62321-8:2017, analyzed by ICP-OES , UV-Vis and GC-MS .

Test Item(s)	Limit	Unit	MDL	002
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	ND
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	1000	mg/kg	8	ND
Sum of PBBs	1000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND
Dibromodiphenyl ether	-	mg/kg	5	ND



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<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>002</u>
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND
Pentabromodiphenyl ether	-	mg/kg	5	ND
Hexabromodiphenyl ether	-	mg/kg	5	ND
Heptabromodiphenyl ether	-	mg/kg	5	ND
Octabromodiphenyl ether	-	mg/kg	5	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND
Decabromodiphenyl ether	-	mg/kg	5	ND
Dibutyl phthalate (DBP)	1000	mg/kg	50	ND
Butyl benzyl phthalate (BBP)	1000	mg/kg	50	ND
Bis (2-ethylhexyl) phthalate (DEHP)	1000	mg/kg	50	ND
Diisobutyl Phthalates (DIBP)	1000	mg/kg	50	ND

Notes :

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
- (2) IEC 62321 series is equivalent to EN 62321 series
- (3) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.

EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium and Hexavalent chromium

Test Method : With reference to IEC 62321-4:2013+A1:2017, IEC 62321-5:2013, IEC 62321-7-1:2015, analyzed by ICP-OES and UV-Vis .

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>	<u>003</u>
Cadmium (Cd)	100	mg/kg	2	ND	ND
Lead (Pb)	1000	mg/kg	2	8	8
Mercury (Hg)	1000	mg/kg	2	ND	ND
Hexavalent Chromium (Cr(VI))▼	-	µg/cm ²	0.10	ND	ND

Notes :

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
- (2) IEC 62321 series is equivalent to EN 62321 series
- (3) ▼= a. The sample is positive for CrVI if the CrVI concentration is greater than 0.13 µg/cm². The sample coating is considered to contain CrVI
 b. The sample is negative for CrVI if CrVI is ND (concentration less than 0.10 µg/cm²). The coating is considered a non-CrVI based coating
 c. The result between 0.10 µg/cm² and 0.13 µg/cm² is considered to be inconclusive - unavoidable coating variations may influence the determination



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Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule ($w=0$) stated in ILAC-G8:09/2019.



REMARK:

CH122 CH132 CH181 CH182 CH183 CH213 CH217 CH221 CH224 CH225 CH226 CH227
 CH228 CH231 CH232 CH233 CH234 CH235 CH236 CH237 CH238 CH241 CH242 CH243
 CH244 CH245 CH246 CH247 CH248 CH249 CH251 CH252 CH311 CH312 CH313 CH314
 CH315 CH316 CH317 CH318 CH319 CH321 CH322 CH323 CH330 CH331 CH332 CH334
 CH335 CH337 CH338 CH339 CH340 CH341 CH342 CH343 CH344 CH345 CH347 CH348
 CH350 CH351 CH352 CH353 CH354 CH355 CH356 CH357 CH358 CH359 CH360 CH364
 CH365 CH366 CH367 CH368 CH370 CH372 CH374 CH375 CH376 CH378 CH382 CH384
 CH390 CH392 CH394 CH395 CH396 CH397 CH398 CH410 CH411 CH412 CH413 CH421
 CH422 CH423 CH424 CH432 CH438 CH440 CH441 CH442 CH443 CH444 CH445 CH446
 CH447 CH448 CH449 CH450 CH451 CH452 CH453 CH454 CH455 CH456 CH457 CH458
 CH459 CH462 CH463 CH464 CH465 CH471 CH472 CH481 CH482 CH483 CH484 CH486
 CH516 CH520 CH521 CH522 CH523 CH524 CH525 CH526 CH527 CH528 CH529 CH530
 CH531 CH532 CH533 CH534 CH536 CH537 CH538 CH539 CH540 CH541 CH542 CH543
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 CH590 CH591 CH592 CH593 CH621 CH622 CH631 CH632 CH633 CH634 CH635 CH636
 CH637 CH638 CH639 CH641 CH642 CH643 CH3232 CH8570 CH8571 CH8572 CH9100
 CH9101 CH9102 CH9103 CH9104 CH9110 CH9120 CH9121 CH9122 CH9126 CH9130
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 CH9622 CH9623 CH9624 CH9625 CH9626 CH9627 CH9628 CH9629 CH9882 CH9884
 CH9936 CH9937 DM7407

CH32F103C6T6	CH32F103C8T6	CH32F103C8U6	CH32F103R6T6	CH32F103R8T6
CH32F103RBT6	CH32F103RCT6	CH32F103VBT6	CH32F103VCT6	CH32F105RBT6
CH32F105RCT6	CH32F105VBT6	CH32F105VCT6	CH32F107RBT6	CH32F107RCT6
CH32F107VBT6	CH32F107VCT6	CH32F203C6T6	CH32F203C8T6	CH32F203C8U6
CH32F203CBT6	CH32F203K8T6	CH32F203RBT6	CH32F203RCT6	CH32F203VCT6
CH32F205RBT6	CH32F207VCT6	CH32F208RBT6	CH32F208WBU6	
CH32V003A4M6	CH32V003F4P6	CH32V003F4U6	CH32V003J4M6	CH32V103C6T6
CH32V103C8T6	CH32V103C8U6	CH32V103R6T6	CH32V103R8T6	CH32V103RBT6
CH32V103RCT6	CH32V103VBT6	CH32V103VCT6	CH32V105RBT6	CH32V105RCT6
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CH32V107VCT6	CH32V203C6T6	CH32V203C8T6	CH32V203C8U6	CH32V203F6P6
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CH32V208RBT6	CH32V208WBU6	CH32V303CBT6	CH32V303RBT6	CH32V303RCT6
CH32V303VCT6	CH32V305FBP6	CH32V305RBT6	CH32V305WBU6	CH32V307RCT6
CH32V307VCT6	CH32V307WCU6			
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CH32V403F8P6	CH32V403F8U6	CH32V403G6U6	CH32V403G8P6	CH32V403G8R6
CH32V403K6T6	CH32V403K8T6	CH32V403RBT6	CH32V403RCT6	CH32V403VCT6
CH32V405FBP6	CH32V405RBT6	CH32V405WBU6	CH32V407RCT6	CH32V407VCT6
CH32V407WCU6				
CH32L103A4M6	CH32L103C6T6	CH32L103C8T6	CH32L103C8U6	CH32L103CBT6



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CH32L103CBU6	CH32L103F4P6	CH32L103F4U6	CH32L103F6P6	CH32L103F8P6
CH32L103F8U6	CH32L103FBP6	CH32L103G6U6	CH32L103G8P6	CH32L103G8R6
CH32L103GBU6	CH32L103J4M6	CH32L103K6T6	CH32L103K8T6	



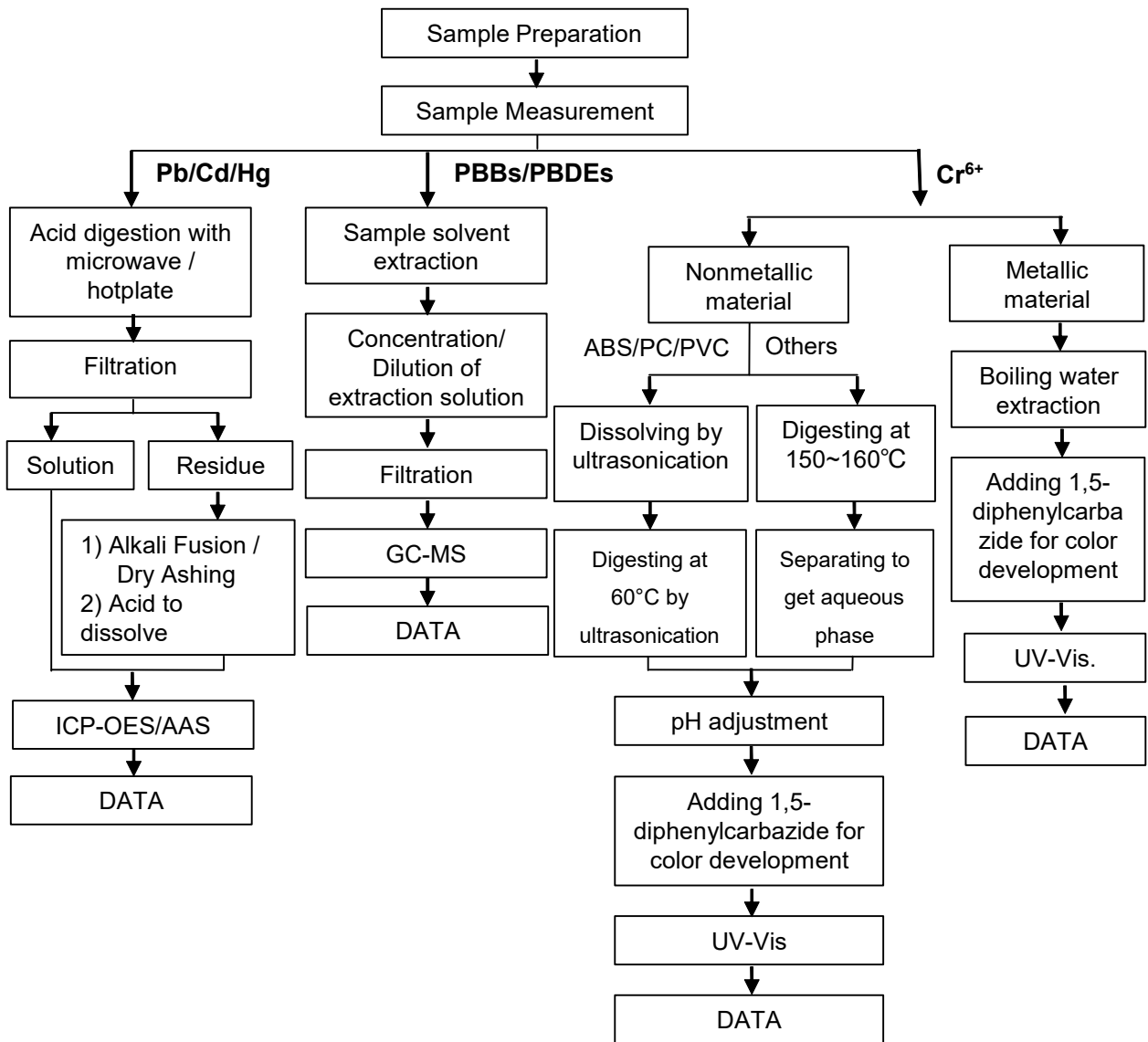
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ATTACHMENTS

Pb/Cd/Hg/Cr⁶⁺/PBBs/PBDEs Testing Flow Chart

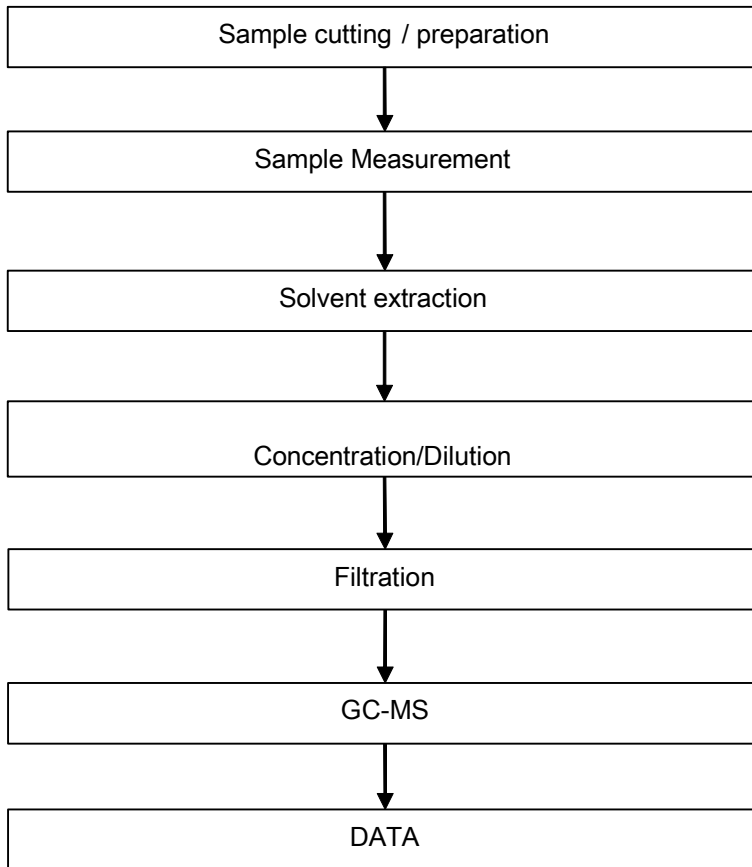
1) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ and PBBs/PBDEs test method excluded).



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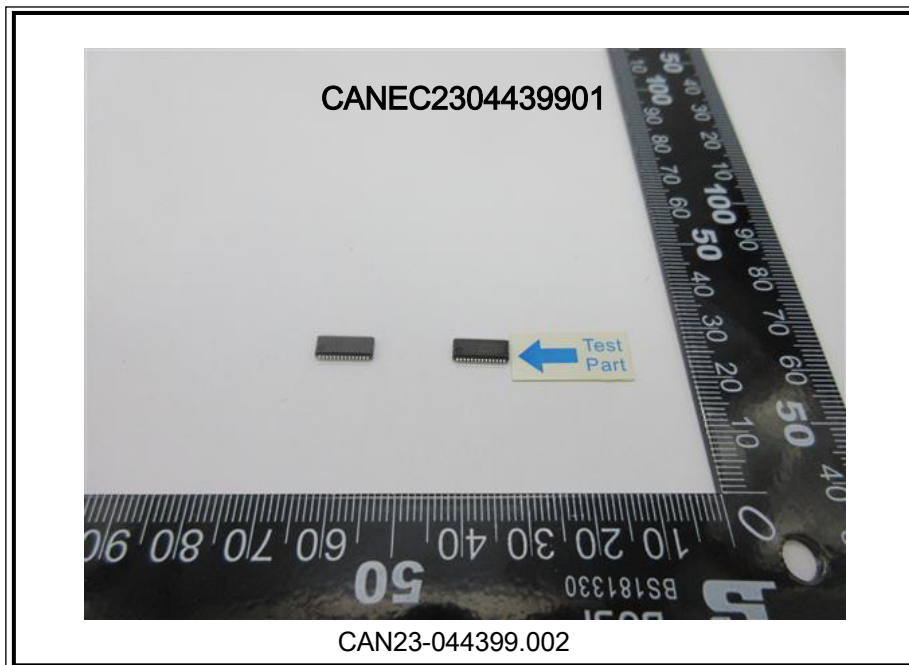
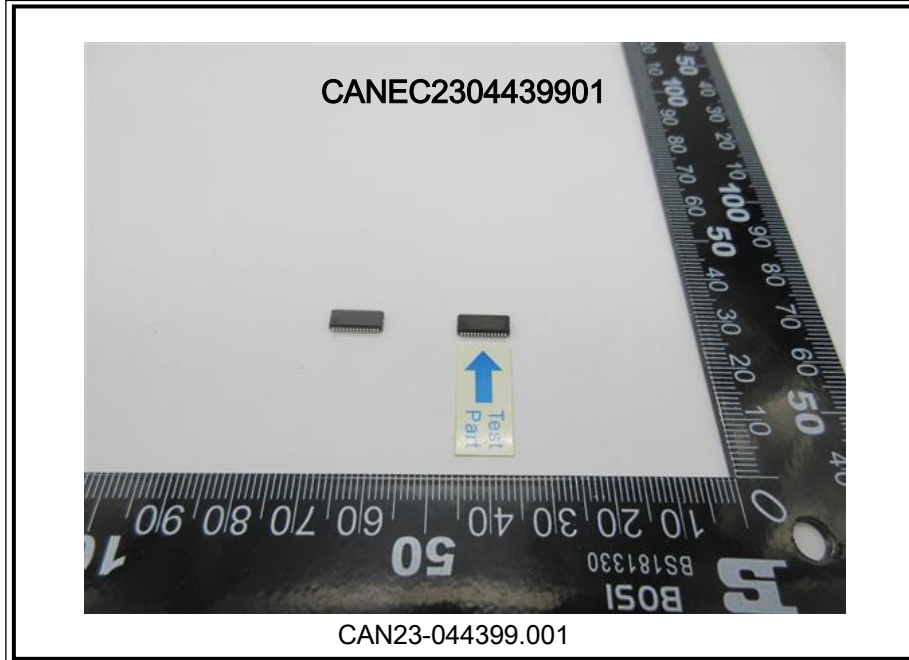
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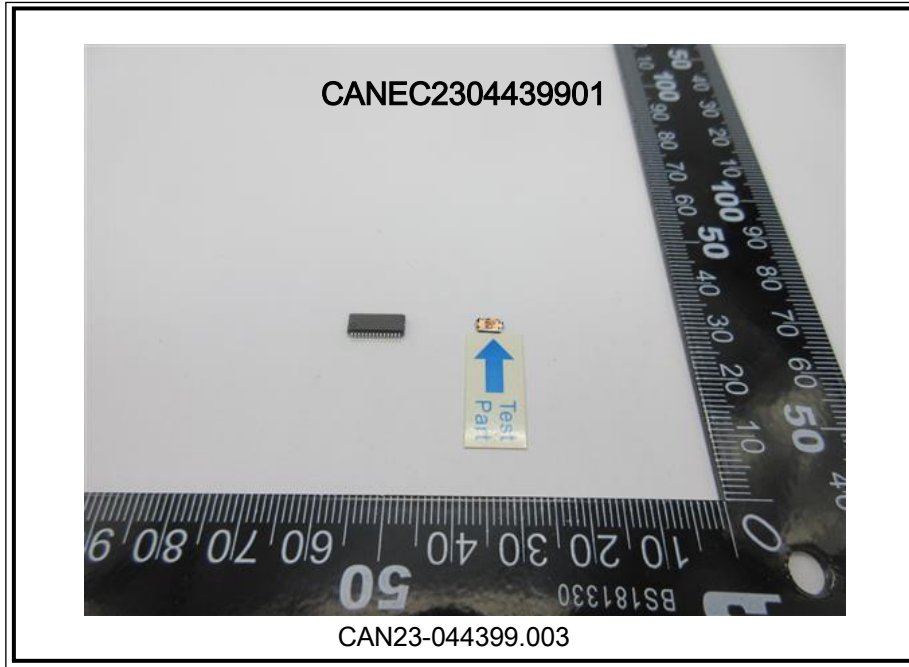
Phthalates Testing Flow Chart



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