

TEST REPORT

August 17, 2016

| Technical Report: | (6616)229-0787 | August 17, 2016 |
|--------------------------------------|----------------------------|--|
| Date Received: | August 4, 2016 | Page 1 of 15 |
| Factory Company Name: | 5038 | |
| Factory Address: | / | |
| Project No.: | / | |
| Client Reference No.: | / | |
| Sample Type: | Grab Sample* | |
| Sample Pick Up Date: | August 4, 2016 | 4 - 204 |
| Test Period: | August 4, 2016 to | August 17, 2016 |
| Sample Description: | Sample(s) received | is/are stated to be: |
| | I001) Light yellov | liquid (Wastewater after treatment) |
| REMARK If there are questions or co | ncerns on this report inle | ase contact the following persons: |
| General enquiry and in | | Ms. Arrow Shi |
| General enquiry and in | voicing | (021) 24081841 |
| | | Arrow.shi@cn.bureauveritas.com |
| Technical enquiry-Che | | Mr. Steven Han |
| reclinical enquiry-che | IIIIcai | |
| | | (021) 24081838 |
| | | Steven-Z.han@cn.bureauveritas.com |
| | | ent samples of above factory which collected on specific date and time. The atory compliance purposes. |
| * The sampling is agreed | d with client. | |
| | | BUREAU VERITAS |
| | | CONSUMER PRODUCTS SERVICES DIVISION (SHANGHA) |
| | A | -fett |
| PREPARED BY: | Arrow | Matthias Chan |

Bureau Veritas (Shanghai) **Consumer Products Services, Inc.** No. 168, GuangHua Road, Zhuanqiao Town, Minghang, Shanghai, China. Post Code: 201108 Tel: 86-21-24081888 Fax: 86-21-64890042 website:cps.bureauveritas.com

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Photo of the Sampling Location & Sample

I001) Sampling Location



I001) Sample





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Executive Summary

| Traditional Parameters | I001 |
|---|--------------------------|
| Color | |
| pH Value | |
| Total Suspended Solids (TSS) | |
| Total Dissolved Solids (TDS) | |
| Biochemical Oxygen Demand (BOD ₅) | See result in page 5 - 7 |
| Chemical Oxygen Demand (COD) | |
| Sulfide | |
| Total Phenolics | |
| Ca & Mg Hardness | |

Note / Key:

- • − Detected
- Not Detected



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Objective

The environment sample was also tested for below General Parameters.

General Parameters

- 1) Color
- 2) pH Value
- 3) Total Suspended Solids (TSS)
- 4) Total Dissolved Solids (TDS)
- 5) Biochemical Oxygen Demand (BOD₅)
- 6) Chemical Oxygen Demand (COD)
- 7) Sulfide
- 8) Total Phenolics
- 9) Ca & Mg Hardness

Sampling Plan

Basically, one environment sample (Wastewater after treatment at discharge point) was sampled per factory. Total number of sample collected will be depended on the actual factory facilities and manufacturing processes.

Method of sampling used is grab sampling (agreed with client.). Grab samples are discrete samples that are taken at a location to provide a 'snapshot' of the water quality characteristics at that time. For the purposes of quantifying water or wastewater constituents, grab samples will show the concentrations at that location and time of sampling. They will not provide any information about the concentrations outside that point in time.

Remark:

- Sampling procedure is with reference to below standards:
 - 1) South Australia EPA Guidelines (June 2007), Regulatory Monitoring and Testing Water and Wastewater Sampling.
 - 2) Australia EPA (Victoria) Guideline (June 2009), Sampling and Analysis of Waters, Wastewaters, Soils and Wastes.
 - 3) ISO 5667-3:2003, Water Quality Sampling Part 3: Guidance on the Preservation and Handling of Water Samples.
 - 4) ASTM D3976-92 (Reapproved 2010), Standard Practice for Preparation of Sediment Samples for Chemical Analysis.
- Field data records are attached in Appendix B.



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Test Result

General Parameters

Color

Test Method: With reference to ISO 7887: 2011

| Tested Item(s) | Result | Unit | Conclusion |
|----------------|--------|-------------------|------------|
| I001 | 50 | Dilution multiple | DATA |

pH Value

Test Method: With reference to APHA 4500-H+ B:2012 & U. S. EPA 150.2

| - | Unit | Result |
|--------------------|--------|--------|
| Test Item(s) | - | I001 |
| Parameter | - | - |
| Temp. of sample | deg. C | 16.8 |
| pH value of sample | - | 6.6 |
| Conclusion | - | DATA |

Note:

Temp. = Temperature deg. $C = degree Celsius (^{\circ}C)$

APHA = American Public Health Association Standard Methods for the Examination of Water and Wastewater

U. S. EPA = United States Environmental Protection Agency

Total Suspended Solids (TSS)

Test Method : With reference to APHA 2540 D:2012

| Tested Item(s) | Result | Unit | Conclusion |
|----------------|--------|------|------------|
| I001 | 11 | mg/L | DATA |

Note:

mg/L = milligram per literDetection Limit (mg/L): 5

APHA = American Public Health Association Standard Methods for the Examination of Water and Wastewater

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Total Dissolved Solids (TDS)

Test Method: With reference to APHA 2540 C:2012

| Tested Item(s) | Result | Unit | Conclusion |
|----------------|--------|------|------------|
| I001 | 467 | mg/L | DATA |

Note:

mg/L = milligram per literDetection Limit (mg/L): 10

APHA = American Public Health Association Standard Methods for the Examination of Water and Wastewater

Biochemical Oxygen Demand (BOD₅)

Test Method: With reference to APHA 5210 B:2012

| Tested Item(s) | Result | Unit | Conclusion |
|----------------|--------|------|------------|
| I001 | 15.3 | mg/L | DATA |

Note:

mg/L = milligram per literDetection Limit (mg/L): 2

APHA = American Public Health Association Standard Methods for the Examination of Water and Wastewater

Chemical Oxygen Demand (COD)

Test Method: With reference to APHA 5220 B:2012 & U. S. EPA 410.3

| Tested Item(s) | Result | Unit | Conclusion |
|----------------|--------|------|------------|
| I001 | 69 | mg/L | DATA |

Note:

mg/L = milligram per literDetection Limit (mg/L): 15

APHA = American Public Health Association Standard Methods for the Examination of Water and Wastewater

U. S. EPA = United States Environmental Protection Agency

Sulfide

Test Method: With reference to APHA 4500 S2- D:2011

| Tested Item(s) | Result | Unit | Conclusion |
|----------------|--------|------|------------|
| I001 | 0.028 | mg/L | DATA |

Note:

mg/L = milligram per literDetection Limit (mg/L): 0.005

APHA = American Public Health Association Standard Methods for the Examination of Water and Wastewater

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Total Phenolics

Test Method: With reference to EPA 420.1 or HJ 503:2009

| Tested Item(s) | Result | Unit | Conclusion |
|----------------|--------|------|------------|
| I001 | < 0.01 | mg/L | DATA |

Note:

mg/L = milligram per literDetection Limit (mg/L): 0.01

Ca & Mg Hardness

Test Method : With reference to APHA 2340 C:2011, 3500-Ca:2011 & 3500-Mg:1997

| - | Unit | Result |
|-----------------|------|--------|
| Tested Item(s) | - | I001 |
| Parameter | - | - |
| Calcium (Ca+) | mg/L | <5 |
| Magnesium (Mg+) | mg/L | <5 |
| Conclusion | - | DATA |

Note:

mg/L = milligram per literDetection Limit (mg/L): 5

APHA = American Public Health Association Standard Methods for the Examination of Water and Wastewater

END

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APPENDIX A

| 0 10 1 | | | | |
|-----------------------------------|---------------|-------------------------|--|---|
| General Data | | | | |
| Laboratory Sample Number | 6616-229-0 | 0787 | | |
| Client Name | / | | | |
| Field Contact Person | Zigang Wa | ang | | Phone No:13912294100 |
| Project (Facility Name and Addres | s) Nantong 1 | Nantong Teijin Co.,Ltd. | | |
| | No. 19 Zho | ongyangRoad, E | Economic & Technological D | evelopment Zone |
| Sampling Location / Description | Gutter/Ligh | nt yellow liquid | | |
| Sample Identification | Water afte | r treament | | |
| Sample Type | Grab San | nples | | |
| Name of Sampler | He Wang/ | Lei Wang | | |
| Date and time collected | 2016.08.04 | 4 | 13:53 | |
| Field Data | | | | |
| Field Parameters | pl | H : 7.0 | Temp: 33.6°C | Color : Light yellow |
| Control No. of field equipment | | / | CA-014A | 1 |
| Analysis Required and Preserva | tion Method | | | |
| Sampler container number | | | 1001-013,1001-014,1001-01 | 5,1001-016 |
| Volume collected | | | 10L | |
| Tests | Test required | Sample size | Type of container | Preservation method |
| 1. PH | Y | 500 mL | Amber glass | 1 |
| 2. COD | Y | 500 mL | Amber Glass | Acidify to pH 2 with H ₂ SO ₄ |
| 3. BOD | Y | 500 mL | Amber Glass | Prevent from light |
| 4. TSS,TDS | Y | 500 mL | Amber Glass | 1 |
| 5. Color | Y | 300 IIIL | Amber glass | 1 |
| 6. Sulfides | Y | 500 mL | Amber glass, pre- add (CH ₃ COO) ₂ Zn | Alkalify to PH 10-12 with NaOH |
| 7. Total Phenolics | Y | 1000 mL | Amber glass, pre-add Na ₂ SO ₃ | Acidify to pH 2 with HNO ₃ , prevent from light |



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TEST REPORT

August 17, 2016

| • | , | | |
|---|--------------------------|---|-----------------------------|
| Date Received: | August 4, 2016 | | Page 1 of 12 |
| Factory Company Name: | 5038 | | |
| Factory Address: | / | | |
| Project No.: | / | | |
| Client Reference No.: | / G 1 G 1 d | | |
| Sample Type: | Grab Sample* | | |
| Sample Pick Up Date: Test Period: | August 4, 2016 | - A | |
| Test Period: | August 4, 2016 t | o August 17, 2016 | |
| Sample Description: | Sample(s) receive | ed is/are stated to be: | |
| | I001) Light yello | ow liquid (Wastewater after treatment) | |
| REMARK If there are questions or co- | ncerns on this report in | lease contact the following persons: | |
| General enquiry and in | | Ms. Arrow Shi | |
| General enquity and in | voicing | (021) 24081841 | |
| | | Arrow.shi@cn.bureauveritas.com | |
| Technical enquiry-Cher | mical | Mr. Steven Han | |
| recimical enquity enci | inicui | (021) 24081838 | |
| | | Steven-Z.han@cn.bureauveritas.com | |
| | | ment samples of above factory which collected on ulatory compliance purposes. | specific date and time. The |
| * The sampling is agreed | l with client. | | |
| | | BUREAU VERITAS | |
| | | CONSUMER PRODUCTS SERVICES | DIVISION (SHANGHAI) |
| DDEDADED DV | A movy | rfatt | |
| PREPARED BY: | Arrow | Matthias Chan | |

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Director (North China Analytical Support)



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Photo of the Sampling Location & Sample

I001) Sampling Location



I001) Sample





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Executive Summary

| 11 Priority Chemical Groups | I001 |
|---|------|
| Phthalates | • |
| Brominated and Chlorinated Flame Retardants | o |
| Azo Dyes | o |
| Organotin Compounds | o |
| Chlorobenzenes | • |
| Chlorotoluenes | 0 |
| Brominated and Chlorinated Solvents | 0 |
| Chlorophenols | 0 |
| Short-Chained Chlorinated Paraffins | • |
| Heavy Metals | • |
| APs and APEOs | 0 |
| Perfluorinated Chemicals | 0 |

Note / Key:

- • − Detected
- Not Detected



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Objective

The environment sample was tested for below 11 Priority Chemical Groups according to the Joint Roadmap: Toward Zero Discharge of Hazardous Chemicals.

11 Priority Chemical Groups

- 1) Phthalates
- 2) Brominated and Chlorinated Flame Retardants
- 3) Azo Dyes
- 4) Organotin Compounds
- 5) Chlorobenzenes/ Chlorotoluenes
- 6) Brominated and Chlorinated Solvents
- 7) Chlorophenols
- 8) Short-Chained Chlorinated Paraffins
- 9) Heavy Metals
- 10) APs and APEOs
- 11) Perfluorinated Chemicals

Sampling Plan

Basically, one environment sample (Wastewater after treatment at discharge point) was sampled per factory. Total number of sample collected will be depended on the actual factory facilities and manufacturing processes.

Method of sampling used is grab sampling (agreed with client.). Grab samples are discrete samples that are taken at a location to provide a 'snapshot' of the water quality characteristics at that time. For the purposes of quantifying water or wastewater constituents, grab samples will show the concentrations at that location and time of sampling. They will not provide any information about the concentrations outside that point in time.

Remark:

- Sampling procedure is with reference to below standards:
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 - 3) ISO 5667-3:2003, Water Quality Sampling Part 3: Guidance on the Preservation and Handling of Water Samples.
 - 4) ASTM D3976-92 (Reapproved 2010), Standard Practice for Preparation of Sediment Samples for Chemical Analysis.
- Field data records are attached in Appendix B.



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Test Result

11 Priority Chemical Groups

Phthalates

Test results of Phthalates are as below.

| Phthalates | I001 |
|---|-------|
| Butyl benzyl phthalate (BBP) | ND |
| Dibutyl phthalate (DBP) | ND |
| Di-2-ethylhexyl phthalate (DEHP) | 0.005 |
| Di-n-octyl phthalate (DNOP) | ND |
| Di-iso-nonyl phthalate (DINP) | ND |
| Di-iso-decyl phthalate (DIDP) | ND |
| Dimethyl phthalate (DMP) | ND |
| Diethyl phthalate (DEP) | ND |
| Di-n-propyl phthalate (DPRP) | ND |
| Di-iso-butyl phthalate (DIBP) | ND |
| Di-cyclohexyl phthalate (DCHP) | ND |
| Di-n-hexyl phthalate (DnHP) | ND |
| Dinonyl phthalate (DNP) | ND |
| Di-iso-octyl phthalate (DIOP) | ND |
| Dimethoxyethyl phthalate (DMEP) | ND |
| 1,2-benzenedicarboxylic acid, di-C7-11 branched alkyl | ND |
| ester and linear alkyl ester (DHNUP) | ND |
| 1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl | ND |
| ester, C7-rich (DIHP) | · |
| Di-pentylphthalate | ND |

Chlorobenzenes

Test results of Chlorobenzenes are as below.

| Chlorobenzenes | I001 |
|---|---------|
| Chlorobenzene | 0.00092 |
| 1,2-Dichlorobenzene | ND |
| 1,3-Dichlorobenzene, 1,4-Dichlorobenzene | ND |
| 1,2,3-Trichlorobenzene | ND |
| 1,2,4-Trichlorobenzene | ND |
| 1,3,5-Trichlorobenzene | ND |
| 1,2,3,4-Tetrachlorobenzene | ND |
| 1,2,3,5-Tetrachlorobenzene, 1,2,4,5-Tetrachlorobenzene | ND |
| Pentachlorobenzene | ND |
| Hexachlorobenzene | ND |



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Short-Chained Chlorinated Paraffins

Test results of Short-Chained Chlorinated Paraffins are as below.

| | I001 |
|--|--------|
| Short-Chained Chlorinated Paraffins (SCCP) | 0.0187 |

Heavy Metals

Test results of Heavy Metals are as below.

| Heavy Metals | I001 |
|----------------------------|-------|
| Arsenic (As) | ND |
| Cadmium (Cd) | ND |
| Mercury (Hg) | ND |
| Lead (Pb) | ND |
| Antimony (Sb) | 0.044 |
| Cobalt (Co) | 0.001 |
| Nickel (Ni) | 0.004 |
| Copper (Cu) | 0.003 |
| Zinc (Zn) | 0.009 |
| Chromium (Cr) | ND |
| Manganese (Mn) | 0.077 |
| Chromium VI (Cr VI) | ND |
| Tin (Sn) | ND |
| Cyanide (CN ⁻) | ND |

Others Priority Chemical Groups

| | I001 |
|---|------|
| Brominated and Chlorinated Flame Retardants | ND |
| Azo Dyes | ND |
| Organotin Compounds | ND |
| Chlorotoluenes | ND |
| Brominated and Chlorinated Solvents | ND |
| Chlorophenols | ND |
| APs and APEOs | ND |
| Perfluorinated Chemicals | ND |

- Test method, reporting limit and list of chemical are summarized in tables of Appendix A.
- ND = Not detected (Please refer to reporting limit shown in Appendix A.).
- All results are in ppm as unit.
- ppm = part(s) per million.

<u>END</u>

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APPENDIX A

| List of Phthalates : | | | | | | |
|----------------------|------------------------------------|----------------------------|-----|---|------------|--|
| No. | Test Method | | | Reporting Limit | Unit | |
| 1 | With reference to U. S. EPA 8270D. | (For Wastewater) | | Each: 0.001 | ppm | |
| No. | Name of Analytes | CAS-No. | No. | Name of Analytes | CAS-No. | |
| 1 | Butyl benzyl phthalate (BBP) | 85-68-7 | 10 | Di-iso-butyl phthalate (DIBP) | 84-69-5 | |
| 2 | Dibutyl phthalate (DBP) | 84-74-2 | 11 | Di-cyclohexyl phthalate (DCHP) | 84-61-7 | |
| 3 | Di-2-ethylhexyl phthalate (DEHP) | 117-81-7 | 12 | Di-n-hexyl phthalate (DnHP) | 84-75-3 | |
| 4 | Di-n-octyl phthalate (DNOP) | 117-84-0 | 13 | Dinonyl phthalate (DNP) | 84-76-4 | |
| 5 | Di-iso-nonyl phthalate (DINP) | 28553-12-0 & 68515-48-0 | 14 | Di-iso-octyl phthalate (DIOP) | 27554-26-3 | |
| 6 | Di-iso-decyl phthalate (DIDP) | 26761-40-0 & 68515-49-1 | 15 | Dimethoxyethyl phthalate (DMEP) | 117-82-8 | |
| 7 | Dimethyl phthalate (DMP) | 131-11-3 | 16 | 1,2-benzenedicarboxylic acid, di- C7-11 branched alkyl ester and linear alkyl ester (DHNUP) | 68515-42-4 | |
| 8 | Diethyl phthalate (DEP) | 84-66-2 | 17 | 1,2-benzenedicarboxylic acid, di- C6-8-branched alkyl ester, C7- rich (DIHP) | 71888-89-6 | |
| 9 | Di-n-propyl phthalate (DPRP) | 131-16-8 | 18 | Di-pentylphthalate | 131-18-0 | |

List of Brominated and Chlorinated Flame Retardants:

| No. | Test Method | | | Reporting Limit | Unit |
|-----|--|-----------|-----|---|------------|
| 1 | With reference to U. S. EPA 527 and with reference to U. S. EPA 8321B. (For Wastewater) Each (PBBs & PBDEs : 0.00005; Each (TRIS, TBBPA & HBCCD): 0.0005; Each (Others): 0 025 TCEP: 0.00005; TDCP: 0.0005 | | | ppm | |
| No. | Name of Analytes | CAS-No. | No. | Name of Analytes | CAS-No. |
| 1 | Polybromobiphenyls (PBBs) | Various | 6 | Hexabromocy clododecane (HBCDD) | Various |
| 2 | Tris(2,3-dibromopropyl) phosphate (TRIS) | 126-72-7 | 7 | 2,2-Bis(bromc methyl)-1,3- propanediol (1 BMP) | 3296-90-0 |
| 3 | Polybromodiphenyl ethers (PBDEs) | Various | 8 | Tris(2-chloroethyl) pho sphate (TCEP) | 115-96-8 |
| 4 | Tetrabromobisphenol A (TBBPA) | 79-94-7 | 9 | Tris(1,3-dichloro-isopropyl) phosphate (TDCP) | 13674-87-8 |
| 5 | Bis(2,3-dibromopropyl) phosphate | 5412-25-9 | - | - | - |



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List of Aromatic Amines in Azo Colorants:

| No. | Test Method | | | Reporting Limit | Unit |
|-----|---|------------------|--------|--|----------|
| 1 | With reference to German Standard reference to European Standard EN Corrigendum and with reference to I 14362-3. (For Wastewater) | 14362-1 incorpor | rating | Each: 0.0001 | ppm |
| No. | Name of Analytes | CAS-No. | No. | Name of Analytes | CAS-No. |
| 1 | 4-Aminodiphenyl (Biphenyl-4-ylamine or Xenylamine) | 92-67-1 | 18 | o-Toluidine (2-Amin ^{otoluene}) | 95-53-4 |
| 2 | Benzidine | 92-87-5 | 19 | 4-Methyl-m-phenylenediamine (2.4-Toluenediamine) | 95-80-7 |
| 3 | 4-Chloro-o-toluidine | 95-69-2 | 20 | 2,4,5-Trimethylaniline | 137-17-7 |
| 4 | 2-Naphthylamine | 91-59-8 | 21 | o-Anisidine (2-Methoxyaniline) | 90-04-0 |
| 5 | o-Aminoazotoluene (4-Amino-2`,3- dimethylazobenzne or 4-o- tolyazo-o-toluidine) | 97-56-3 | 22 | 4-Aminoazobenzene (p-Aminoazobenzene) | 60-09-3 |
| 6 | 5-nitro-o-toluidine (2-Amino-4-nitrotoluene) | 99-55-8 | 23 | 2,4-Xyll _{dine} (2,4-dimethylaniline) | 95-68-1 |
| 7 | 4-Chloroaniline (p-Chloroaniline) | 106-47-8 | 24 | 2,6-Xyll _{dine} (2,6-dimethylaniline) | 87-62-7 |
| 8 | 4-Methoxy-m-phenylenediamine (2,4-Diaminoanisole) | 615-05-4 | 25 | Aniline | 62-53-3 |
| 9 | 4,4`-Diaminodiphenylmethane (4,4`-Methylenedianiline) | 101-77-9 | 26 | 1,4-Phenylenediamine | 106-50-3 |
| 10 | 3,3`-Dichlorobenzidine (3,3`-Dichlorobiphenyl-4,4`- ylenediamine) | 91-94-1 | 27 | 2-Chloroaniline | 95-51-2 |
| 11 | 3,3`-Dimethoxybenzidine (o-Dianisidine) | 119-90-4 | 28 | 5-Nitro-o-anisidine | 99-59-2 |
| 12 | 3,3`-Dimethylbenzidine (4,4`-Bi-o-tolidine) | 119-93-7 | 29 | m-Tolui dine | 108-44-1 |
| 13 | 4,4'-Methylenedi-o-toluidine (3,3'-Dimethyl- 4,4'-diaminodiphenylmethane) | 838-88-0 | 30 | N,N-Diethylaniline | 91-66-7 |
| 14 | p-Cresidine (6-Methoxy-m-toluidine) | 120-71-8 | 31 | N-Ethylaniline | 103-69-5 |
| 15 | 4,4`-Methylene-bis-(2-chloraniline) (2,2`-Dichloro-4,4`-methylene-dianiline) | 101-14-4 | 32 | N-Methylaniline | 100-61-8 |
| 16 | 4,4`-Oxydianiline | 101-80-4 | 33 | p-Toluidine | 106-49-0 |
| 17 | 4,4`-Thiodianiline | 139-65-1 | - | - | - |



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| List of Organotin Compounds : | | | | | | |
|-------------------------------|--|---------|-----|----------------------|---------|--|
| No. | Test Method | | | Reporting Limit | Unit | |
| 1 | With reference to European Standard EN ISO 17353. (For Wastewater) | | | Each: 0.00001 | ppm | |
| No. | Name of Analytes | CAS-No. | No. | Name of Analytes | CAS-No. | |
| 1 | Monobutyltin (MBT) | | 7 | Trioctyltin (TOT) | | |
| 2 | Dibutyltin (DBT) | | 8 | Tripropyltin (TPT) | | |
| 3 | Dioctyltin (DOT) | Various | 9 | Monooctyltin (MOT) | Various | |
| 4 | Tributyltin (TBT) | | 10 | Trimethyltin (TMT) | | |
| 5 | Triphenyltin (TPhT) | | 11 | Tetrabutyltin (TebT) | | |
| 6 | Tricyclohexyltin (TCyHT) | | 12 | Dimethyltin (DMT) | | |

List of Chlorobenzenes:

| No. | Test Method | | | Reporting Limit | Unit |
|-----|---|-----------------------|-----|--|----------------------|
| 1 | With reference to U. S. EPA 8260B and with reference to U. S. EPA 8270D. (For Wastewater) | | | Each: 0.00002 | ppm |
| No. | Name of Analytes | CAS-No. | No. | Name of Analytes | CAS-No. |
| 1 | Chlorobenzene | 108-90-7 | 6 | 1,3,5-Tri chlorobenzene | 108-70-3 |
| 2 | 1,2-Dichlorobenzene | 95-50-1 | 7 | 1,2,3,4-Tetrachlorobenz ene | 634-66-2 |
| 3 | 1,3-Dichlorobenzene, 1,4-Dichlorobenzene | 541-73-1, 106-46-7 | 8 | 1,2,3,5-Tetrachlorobenzene, 1,2,4,5-Tetrachlorobenzene | 634-90-2, 95-94-3 |
| 4 | 1,2,3-Trichlorobenzene | 87-61-6 | 9 | Pentachl orobenzene | 608-93-5 |
| 5 | 1,2,4-Trichlorobenzene | 120-82-1 | 10 | Hexachle robenzene | 118-74-1 |

List of Chlorotoluenes:

| No. | Test Method | | | Reporting Limit | Unit |
|-----|--|------------|-------|-------------------------|-----------|
| 1 | With reference to U. S. EPA 8260B U. S. EPA 8270D. (For Wastewater) | | ce to | Each: 0.00002 | ppm |
| No. | Name of Analytes | CAS-No. | No. | Name of Analytes | CAS-No. |
| 1 | 2-Chlorotoluene | 95-49-8 | 7 | 2,6-Dichlorotoluene | 118-69-4 |
| 2 | 3-Chlorotoluene | 108-41-8 | 8 | 3,4-Dichlorotoluene | 95-75-0 |
| 3 | 4-Chlorotoluene | 106-43-4 | 9 | 2,3,6-Tri chlorotoluene | 2077-46-5 |
| 4 | 2,3-Dichlorotoluene | 32768-54-0 | 10 | 2,4,5-Tri chlorotoluene | 6639-30-1 |
| 5 | 2,4-Dichlorotoluene | 95-73-8 | 11 | Tetrachle rotoluene | Various |
| 6 | 2,5-Dichlorotoluene | 19398-61-9 | 12 | Pentachl orotoluene | 877-11-2 |



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| List of Brominated and Chlorinated Solvents : | | | | | | | |
|---|------------------------------------|-----------------|-----|---------------------------|------------|--|--|
| No. | Test Method | | | Reporting Limit | Unit | | |
| 1 | With reference to U. S. EPA 8260B. | (For Wastewater |) | Each: 0.1 | ppm | | |
| No. | Name of Analytes | CAS-No. | No. | Name of Analytes | CAS-No. | | |
| 1 | 1,2-Dichloroethane | 107-06-2 | 13 | Bromodichloromethane | 75-27-4 | | |
| 2 | 1,1-Dichloroethylene | 75-35-4 | 14 | Bromoform | 75-25-2 | | |
| 3 | Methylene Chloride | 75-09-2 | 15 | Chlorodibromomethane | 124-48-1 | | |
| 4 | cis-1,2-Dichloroethylene | 156-59-2 | 16 | Chloroethane | 75-00-3 | | |
| 5 | trans-1,2-Dichloroethylene | 156-60-5 | 17 | Dibromomethane | 74-95-3 | | |
| 6 | Chloroform | 67-66-3 | 18 | 1,1-Dichloroethane | 75-34-3 | | |
| 7 | 1,1,1-Trichloroethane | 71-55-6 | 19 | trans-1,3-Dichloropropene | 10061-02-6 | | |
| 8 | Carbon Tetrachloride | 56-23-5 | 20 | Hexachlorobutadiene | 87-68-3 | | |
| 9 | Trichloroethylene | 79-01-6 | 21 | 1,1,2,2-Tetrachloroethane | 79-34-5 | | |
| 10 | 1,1,2-Trichloroethane | 79-00-5 | 22 | Vinyl chloride | 75-01-4 | | |
| 11 | 1,1,1,2-Tetrachloroethane | 630-20-6 | 23 | Hexachloroethane | 67-72-1 | | |
| 12 | Tetrachloroethylene | 127-18-4 | 24 | Pentachloroethane | 76-01-7 | | |

| List of Chlorophenols : | | | | | | |
|-------------------------|---|-------------------------|-----|---|--|--|
| No. | Test Method | | | Reporting Limit | Unit | |
| 1 | With reference to U. S. EPA 8270D | . (For Wastewater | .) | Each: 0.0005 | ppm | |
| No. | Name of Analytes | CAS-No. | No. | Name of Analytes | CAS-No. | |
| 1 | Pentachlorophenol | 87-86-5 | 9 | 2,3-Dichlorophenol | 576-24-9 | |
| 2 | 2,3,4,5-Tetrachlorophenol | 4901-51-3 | 10 | 3,4-Dichlorophenol | 95-77-2 | |
| 3 | 2,3,4,6-Tetrachlorophenol | 58-90-2 | 11 | 2,4-Dichlorophenol, 2,5-Dichlorophenol, 2,6-Dichlorophenol, 3,5-Dichlorophenol | 120-83-2, 583-78-8, 87-65-0, 591-35-5 | |
| 4 | 2,3,5,6-Tetrachlorophenol | 935-95-5 | 12 | 2-Chlorophenol | 95-57-8 | |
| 5 | 2,4,6-Trichlorophenol | 88-06-2 | 13 | 3-Chlorophenol | 108-43-0 | |
| 6 | 2,3,5-Trichlorophenol | 933-78-8 | 14 | 4-Chlorophenol | 106-48-9 | |
| 7 | 2,4,5-Trichlorophenol | 95-95-4 | 15 | 4-Chloro-3-methylphenol | 59-50-7 | |
| 8 | 3,4,5-Trichlorophenol, 2,3,4-Trichlorophenol | 609-19-8, 15950-66-0 | 16 | o-Phenyphenol | 90-43-7 | |

List of Short Chain Chlorinated Paraffins:

| No. | Test Method | | | Reporting Limit | | Unit |
|-----|---------------------------------------|-----------------|------|------------------|--|---------|
| 1 | With reference to International Stand | lard ISO 12010. | (For | 0.0004 | | nnm |
| 1 | Wastewater) | | | 0.0004 | | ppm |
| No. | Name of Analytes | CAS-No. | No. | Name of Analytes | | CAS-No. |
| 1 | Short Chain Chlorinated Paraffins | 85535-84-8 | - | - | | - |



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| List o | f Heavy Metals : | | | | |
|--------|--|------------------|------|---|---------|
| No. | Test Method | | | Reporting Limit | Unit |
| 1 | With reference to U. S. EPA 3015A U. S. EPA 6020A./ With reference to With reference to APHA 4500 CN- CN- E:2012 (For Wastewater) | o U. S. EPA 7196 | 6A./ | Cd: 0.0001; Hg: 0.00005; CN : 0.02 Each (Others): 0.001 | ppm |
| No. | Name of Analytes | CAS-No. | No. | Name of Analytes | CAS-No. |
| 1 | Arsenic (As) | | 8 | Copper (Cu) | |
| 2 | Cadmium (Cd) | | 9 | Zinc (Zn) | |
| 3 | Mercury (Hg) | | 10 | Chromium (Cr) | |
| 4 | Lead (Pb) | Various | 11 | Manganese (Mn) | Various |
| 5 | Antimony (Sb) | | 12 | Chromium VI (Cr VI) | |
| 6 | Cobalt (Co) | | 13 | Tin (Sn) | |
| 7 | Nickel (Ni) | | 14 | Cyanide (CN) | |

| No. | Test Method | | | Reporting Limit | Unit |
|-----|--|------------------|-----|---|---------|
| 1 | With reference to ASTM Internation D7065. (For Wastewater) | nal Standard AST | M | Each (OP & NP): 0.001; Each (OPEO & NPEO): 0.005 | ppm |
| No. | Name of Analytes | CAS-No. | No. | Name of Analytes | CAS-No. |
| 1 | Octylphenol (OP) | | 5 | Octylphenol monoethoxylates, OP2EO | |
| 2 | Nonylphenol (NP) | | 6 | Nonylphenol monoethoxylates, NP2EO | Various |
| 3 | Octylphenol monoethoxylates, OP1EO | - Various | 7 | Octylphenolethoxylates, (n=4 to n=15) | various |
| 4 | Nonylphenol monoethoxylates, NP1EO | | 8 | Nonylphenolethoxylates, (n=4 to n=15) | |

List of Perfluorinated Chemicals:

| No. | Test Method | | | Reporting Limit | Unit |
|-----|--|-----------|-----|---------------------------------------|------------|
| 1 | In house method and analysis by Lic Mass Spectrometer (LC-MS). (For V | | aph | Each: 0.0000 | ppm |
| No. | Name of Analytes | CAS-No. | No. | Name of Analytes | CAS-No. |
| 1 | Perfluorooctanoic acid (PFOA) | 335-67-1 | 4 | Perfluorohexane sulpho nates (PFHxS) | 3871-99-6 |
| 2 | Perfluorooctane sulphonates (PFOS) | 2795-39-3 | 5 | Perfluorobutanoic acid (PFBA) | 375-22-4 |
| 3 | Perfluoro-n-hexanoic acid (PFHxA) | 307-24-4 | 6 | Perfluorobutane sulphoi tes (PFBS) | 29420-49-3 |

Note / Key:

ppm = part(s) per million U. S. EPA = United States Environmental Protection Agency APHA = American Public Health Association

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APPENDIX B

| General Data | | | | |
|--|------------------|------------------|--|--|
| Laboratory Sample Number | 6616-217- | 1284 | | |
| Client Name | 1 | | | |
| Field Contact Person | Zigang Wa | ang | | Phone No:13912294100 |
| Project (Facility Name and Address) | Nantong 1 | Геіјіп Со.,Ltd. | | |
| | No. 19 Zho | ongyangRoad, E | Economic & Technological D | evelopment Zone |
| Sampling Location / Description | Gutter/Ligh | ht yellow liquid | | |
| Sample Identification | Water afte | r treament | | |
| Sample Type | Grab San | nples | | |
| Name of Sampler | He Wang/ | Lei Wang | | |
| Date and time collected | 2016.08.04 | 4 | 13:52 | |
| Field Data | | | | |
| Field Parameters | pl | H : 7.0 | Temp: 33.6°C | Color : Light yellow |
| Control No. of field equipment | | / | CA-014A | / |
| Analysis Required and Preservation Me | ethod | | | |
| Sampler container number | | 1001 | -1,1001-2,1001-3,1001-4, 1001- | -5, 1001-6, 1001-7 |
| Volume collected | | | 10L | |
| Tests | Test required | Sample size | Type of container | Preservation method |
| 1. Phthalate | Υ | 500 mL | | |
| Brominated and chlorinated Flame retardant | Y | 1000 mL | Amber Glass, wash with nitric acid, | Without adding acid |
| 3. Banned Azodyes | Y | 500 mL | rinse thoroughly with distillated water and | Store sample at 4°C |
| 4. Organotin Compounds | Y | 500 mL | dry before use | |
| 5. SCCPs | Y | 500 mL | 1 | |
| 6. Chlorophenol and Other Phenol | Y | 500 mL | | A 117 |
| 7. APEOs/APs | Y | 1000mL | Amber Glass, wash with | Acidify to ~pH 2 with HCI |
| 8. Chlorobenzenes and Chlorotoluenes | Y | 500 mL | nitric acid; Pre-add 6.5 mL of 2M | Store sample at 4°C |
| 9. Brominated and chlorinated Solvents | Y | 500 mL | HCI | Fill to full bottle without air; acidify to ~pH 2 with HCl Store sample at 4°C |
| 10. Heavy Metals except CrVI | Y | 500mL | PE, wash with nitric acid; Pre-add 6.5 mL of 2M HNO3 | Acidify to ~pH 2 with HNO3 Store sample at 4°C |
| 11. CrVI | Υ | 500 mL | Amber Glass, wash with pesticide grade acetone | Fill to full bottle without air nor addi acid Store sample at 4°C |
| 12. PFCs | Y | 500 mL | PE, wash with pesticide grade Acetone; | Without adding acid Store sample at 4°C |
| 13. Cyanide | Y | 500 mL | Amber Glass, wash with pesticide grade Acetone | Add 50% sodium hydroxide solution (5.8) until the pH ≥ 12 |

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