



17.33943



RAPPORTO DI PROVA

APPLICANT

CANDIANI SPA
Via Arese, 85
20020, Robecchetto con Induno (MI)

LAB NO: IT) 17.33943

DATE IN: 18/07/2017
DATE OUT: 10/08/2017
PAGE: 10

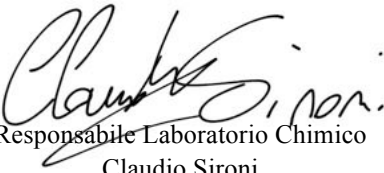
Facility:	CANDIANI SPA - Via Arese, 85, 20020, Robecchetto con Induno (MI)
Sample Description:	RAW WASTEWATER Date and hour of sampling: 18/07/2017 - 11:00 Sampling location: HomogenizationTank Sampling method: Single grab Sampling by: UL In-charge Technician Sampling Record N°: MICI1807201701



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TEST EFFETTUATI	CONCLUSIONI
Alkylphenol and Alkylphenol ethoxylates (AP / APEOs)	//
Chlorinated Benzenes and Toluenes	//
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Perfluorinated compounds (PFCs)	//
Phthalates	//
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Chlorinated Solvents	//
Heavy metals	//


Responsabile Laboratorio Chimico
Claudio Sironi

NOTE

1. Questo rapporto si intende per vostro esclusivo uso. Qualsiasi copia o duplicato, anche parziale, di questo rapporto da parte di altre persone o enti, o l'uso dei nostri nomi o marchio, sono concessi solo su nostro permesso
2. Il nostro rapporto è limitato solo al campione qui identificato. I risultati dati in questo rapporto non sono indicativi o rappresentativi di qualità statistiche o caratteristiche del lotto da cui il campione è stato preso o qualsiasi prodotto simile o identico a meno che non sia specificatamente e espressamente indicato.
3. I nostri rapporti includono tutti le analisi richieste da voi con i relativi risultati. Voi avete trenta giorni dal ricevimento di questo rapporto per richiedere analisi addizionali del campione o per notificarci qualsiasi errore o omissioni relative al nostro rapporto; tuttavia, la notifica deve pervenire per iscritto e specificare chiaramente l'errore/omissione riscontrato. Questioni sollevate al di fuori dei tempi prescritti non saranno ammesse.
4. Le informazioni contenute in questo rapporto saranno inviate al Cliente finale secondo la procedura stabilita nel proprio manuale o per procedura del laboratorio.
5. Il cliente è responsabile del campionamento, del trasporto e della consegna del campione.



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Date Analisi

Data Inizio Prove: 18/07/2017

Data Fine Prove: 10/08/2017

Alkylphenol and Alkylphenol ethoxylates (AP / APEOs)

Test Method: With reference to ISO 18857-2:2009 and ISO 18254-1:2016; quantification with LC-MS-MS and GC-MS analysis

Substance name	CAS N.	Detection limit	Results
Nonylphenol (NP), mixed isomers	84852-15-3	1 µg/L	1,23
	11066-49-2		
	25154-52-3		
	84852-15-3		
	90481-04-2		
Octylphenol (OP), mixed isomers	140-66-9	1 µg/L	ND
	1806-26-4		
	27193-28-8		
Octylphenol ethoxylates (OPEO)	9002-93-1	1 µg/L	ND
	9036-19-5		
	68987-90-6		
Nonylphenol ethoxylates (NPEO)	9016-45-9	1 µg/L	ND
	26027-38-3		
	37205-87-1		
	68412-54-4		
	127087-87-0		
Legend: ND= Not detected			

Chlorinated Benzens and Toluenes

Test Method: With reference to US EPA 8260B and 8270D; quantification with GC-ECD and GC-MS analysis

Substance name	CAS N.	Detection limit	Results
Monochlorobenzene	108-90-7	0,02 µg/L	ND
1,2-Dichlorobenzene	95-50-1	0,02 µg/L	ND
1,3-Dichlorobenzene	541-73-1	0,02 µg/L	ND
1,4-Dichlorobenzene	106-46-7	0,02 µg/L	ND
1,2,3-Trichlorobenzene	87-61-6	0,02 µg/L	ND
1,2,4-Trichlorobenzene	120-82-1	0,02 µg/L	ND
1,3,5-Trichlorobenzene	108-70-3	0,02 µg/L	ND
Tetrachlorobenzene	12408-10-5	0,02 µg/L	ND
1,2,3,4- Tetrachlorobenzene	634-66-2	0,02 µg/L	ND
1,2,3,5-Tetrachlorobenzene	634-90-2	0,02 µg/L	ND
1,2,4,5-Tetrachlorobenzene	95-94-3	0,02 µg/L	ND
Pentachlorobenzene	608-93-5	0,02 µg/L	ND
Hexachlorobenzene	118-74-1	0,02 µg/L	ND
Legend: ND= Not detected			



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**Chlorophenols**

Test Method: With reference to US EPA 8270D; quantification with GC-ECD and GC-MS analysis

Substance name	CAS N.	Detection limit	Results
2-chlorophenol	95-57-8	0,5 µg/L	ND
3-chlorophenol	108-43-0	0,5 µg/L	ND
4-chlorophenol	106-48-9	0,5 µg/L	ND
Dichlorophenols	25167-81-1	0,5 µg/L	ND
2,3-dichlorophenol	576-24-9	0,5 µg/L	ND
2,4-dichlorophenol	120-83-2	0,5 µg/L	ND
2,5-dichlorophenol	583-78-8	0,5 µg/L	ND
2,6-dichlorophenol	87-65-0	0,5 µg/L	ND
3,4-dichlorophenol	95-77-2	0,5 µg/L	ND
3,5-dichlorophenol	591-35-5	0,5 µg/L	ND
Trichlorophenols	25167-82-2	0,5 µg/L	ND
2,3,4-trichlorophenol	15950-66-0	0,5 µg/L	ND
2,3,5-trichlorophenol	933-78-8	0,5 µg/L	ND
2,3,6-trichlorophenol	933-75-5	0,5 µg/L	ND
2,4,5-trichlorophenol	95-95-4	0,5 µg/L	ND
2,4,6-trichlorophenol	88-06-2	0,5 µg/L	ND
3,4,5-trichlorophenol	609-19-8	0,5 µg/L	ND
Tetrachlorophenols	25167-83-3	0,5 µg/L	ND
2,3,4,5-tetrachlorophenol	4901-51-3	0,5 µg/L	ND
2,3,4,6-tetrachlorophenol	58-90-2	0,5 µg/L	ND
2,3,5,6-tetrachlorophenol	935-95-5	0,5 µg/L	ND
Pentachlorophenol	87-86-5	0,5 µg/L	ND
Legend: ND= Not detected			



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**Azo-dyes**

Test Method: With reference to EN 14362-1:2012 and EN 14362-3:2012; quantification with GC-MS and HPLC analysis

Substance name	CAS N.	Detection limit	Results
4-Aminodiphenyl	92-67-1	1 µg/L	ND
Benzidine	92-87-5	1 µg/L	ND
4-Chloro-o-Toluidine	95-69-2	1 µg/L	ND
2-Naphthylamine	91-59-8	1 µg/L	ND
o-Aminoazotoluene	97-56-3	1 µg/L	ND
2-Amino-4-Nitrotoluene	99-55-8	1 µg/L	ND
p-Chloroaniline	106-47-8	1 µg/L	ND
2,4-Diaminoanisole	615-05-4	1 µg/L	ND
4,4'-Diaminodiphenylmethane	101-77-9	1 µg/L	ND
3,3'-Dichlorobenzidine	91-94-1	1 µg/L	ND
3,3'-Dimethoxybenzidine	119-90-4	1 µg/L	ND
3,3'-Dimethylbenzidine	119-93-7	1 µg/L	ND
3,3'-Dimethyl-4,4' diaminodiphenylmethane	838-88-0	1 µg/L	ND
p-Cresidine	120-71-8	1 µg/L	ND
4,4'-Methylene-Bis(2-Chloroaniline)	101-14-4	1 µg/L	ND
4,4'-Oxydianiline	101-80-4	1 µg/L	ND
4,4'-Thiodianiline	139-65-1	1 µg/L	ND
o-Toluidine	95-53-4	1 µg/L	ND
2,4-Toluylenediamine	95-80-7	1 µg/L	ND
2,4,5-Trimethylaniline	137-17-7	1 µg/L	ND
o-Anisidine	90-04-0	1 µg/L	ND
p-Aminoazobenzene	60-09-3	1 µg/L	ND
2,4-Xylidine	95-68-1	1 µg/L	ND
2,6-Xylidine	87-62-7	1 µg/L	ND
Legend: ND= Not detected			



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**Colourants - Carcinogenic**

Test Method: With reference to DIN 54231:2005-11; quantification with HPLC analysis

Substance name	CAS N.	Detection limit	Results
C.I. Direct Black 38	1937-37-7	1 µg/L	ND
C.I. Direct Blue 6	2602-46-2	1 µg/L	ND
C.I. Acid Red 26	3761-53-3	1 µg/L	ND
C.I. Basic Red 9	569-61-9	1 µg/L	ND
C.I. Direct Red 28	573-58-0	1 µg/L	ND
C.I. Basic Violet 14	632-99-5	1 µg/L	ND
C.I. Disperse Blue 1	2475-45-8	1 µg/L	ND
C.I. Disperse Blue 3	2475-46-9	1 µg/L	ND
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	1 µg/L	ND
C.I. Basic Green 4 (malachite green chloride)	569-64-2	1 µg/L	ND
C.I. Basic Green 4 (malachite green oxalate)	2437-29-8	1 µg/L	ND
C.I. Basic Green 4 (malachite green)	10309-95-2	1 µg/L	ND
Disperse Orange 11	82-28-0	1 µg/L	ND

Legend:
ND= Not detected

Colourants - Allergenic

Test Method: With reference to DIN 54231:2005-11; quantification with HPLC analysis

Substance name	CAS N.	Detection limit	Results
Disperse Yellow 1	119-15-3	1 µg/L	ND
Disperse Blue 102	12222-97-8	1 µg/L	ND
Disperse Blue 106	12223-01-7	1 µg/L	ND
Disperse Yellow 39	12236-29-2	1 µg/L	ND
Disperse Orange 37/59/76	13301-61-6	1 µg/L	ND
Disperse Brown 1	23355-64-8	1 µg/L	ND
Disperse Orange 1	2581-69-3	1 µg/L	ND
Disperse Yellow 3	2832-40-8	1 µg/L	ND
Disperse Red 11	2872-48-2	1 µg/L	ND
Disperse Red 1	2872-52-8	1 µg/L	ND
Disperse Red 17	3179-89-3	1 µg/L	ND
Disperse Blue 7	3179-90-6	1 µg/L	ND
Disperse Blue 26	3860-63-7	1 µg/L	ND
Disperse Yellow 49	54824-37-2	1 µg/L	ND
Disperse Blue 35	12222-75-2	1 µg/L	ND
Disperse Blue 124	61951-51-7	1 µg/L	ND
Disperse Yellow 9	6373-73-5	1 µg/L	ND
Disperse Orange 3	730-40-5	1 µg/L	ND
Disperse Blue 35	56524-77-7	1 µg/L	ND

Legend:
ND= Not detected



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**Flame retardants**

Test Method: With reference to US EPA 8270D, quantification with GC-MS and LC-MS-MS analysis

Substance name	CAS N.	Detection limit	Results
Polybrominated diphenyl ethers (PBDEs)		5 µg/L	ND
Monobromo diphenyl ethers (MonoBDE) -		5 µg/L	ND
Dibromo diphenyl ethers (DiBDE) -		5 µg/L	ND
Tribromo diphenyl ethers (TriBDE) -		5 µg/L	ND
Tetrabromo diphenyl ethers (TetraBDE)	40088-47-9	5 µg/L	ND
Pentabromo diphenyl ethers (PentaBDE)	32534-81-9	5 µg/L	ND
Hexabromo diphenyl ethers (HexaBDE)	36483-60-0	5 µg/L	ND
Heptabromo diphenyl ethers (HeptaBDE)	68928-80-3	5 µg/L	ND
Octabromo diphenyl ethers (OctaBDE)	32536-52-0	5 µg/L	ND
Nonabromo diphenyl ethers (NonaBDE)	63936-56-1	5 µg/L	ND
Decabromo diphenyl ether (DecaBDE)	1163-19-5	5 µg/L	ND
Tris(2,3-Dibromopropyl)-Phosphate	126-72-7	5 µg/L	ND
Tris(2-Chloroethyl)Phosphate (TCEP)	115-96-8	5 µg/L	ND
Hexabromocyclododecane (HBCDD)	134237-50-6,134237-51-7,134237-52-8,25637-99-4,3194-55-6	5 µg/L	ND
Tetrabromo-bisphenol A (TBBPA)	79-94-7	5 µg/L	ND
Bis (2,3-dibromopropyl) phosphate	5412-25-9	5 µg/L	ND
Tris(1,3-dichloro-2-propyl)phosphate (TDCPP)	13674-87-8	5 µg/L	ND
Tris (1-chloro-2-propyl) phosphate (TCPP)	13674-84-5	5 µg/L	ND
Legend: ND= Not detected			

Organotin compounds

Test Method: With reference to ISO 17353:2004, and quantification with GC-MS analysis

Substance name	CAS N.	Detection limit	Results
MBT(Monobutyltin)	78763-54-9	0,1 µg/L	ND
DBT(Dibutyltin)	1002-53-5	0,1 µg/L	ND
TBT(Tributyltin)	36643-28-4	0,1 µg/L	ND
DOT(Dioctyltin)	94410-05-6	0,1 µg/L	ND
MOT(Monooctyltin)	15231-44-4	0,1 µg/L	ND
DPhT(Diphenyltin)	1011-95-6, 6381-06-2	0,1 µg/L	ND
TeBT(Tetrabutyltin)	1461-25-2	0,1 µg/L	ND
TCHT(Tricyclohexyl Tin)	6056-50-4	0,1 µg/L	ND
TPT(Tripopyltin)	NA	0,1 µg/L	ND
TeET(Tetraethyltin)	597-64-8	0,1 µg/L	ND
Tributyltin oxide (TBTO)	56-35-9	0,1 µg/L	ND
Dibutyltin dichloride (DBTC)	683-18-1	0,1 µg/L	ND
Triphenyltin (TPhT)	668-34-8	0,1 µg/L	ND
Dibutyltin hydrogen borate (DBB)	75113-37-0	0,01 µg/L	ND



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**Legend:**

ND= Not detected

Perfluorinated compounds (PFCs)

Test Method: With reference to DIN 38407-42, quantification with LC-MS-MS and GC-MS analysis

Substance name	CAS N.	Detection limit	Results
PFBA	375-22-4	0,01 µg/L	ND
PFPeA	2706-90-3	0,01 µg/L	ND
PFHxA	307-24-4	0,01 µg/L	ND
PFHpA	375-85-9	0,01 µg/L	ND
PFOA	335-67-1	0,01 µg/L	ND
PFNA	375-95-1	0,01 µg/L	ND
PFDA	335-76-2	0,01 µg/L	ND
PFUnA	2058-94-8	0,01 µg/L	ND
PFDoA	307-55-1	0,01 µg/L	ND
PFTTrA	72629-94-8	0,01 µg/L	ND
PFteA	376-06-7	0,01 µg/L	ND
PFBS	375-73-5 or 59933-66-3	0,01 µg/L	ND
PFHxS	355-46-4	0,01 µg/L	ND
PFHpS	375-92-8	0,01 µg/L	ND
PFOS	1763-23-1	0,01 µg/L	ND
PFDS	335-77-3	0,01 µg/L	ND
4:2 FTOH	2043-47-2	0,1 µg/L	ND
6:2 FTOH	647-42-7	0,1 µg/L	ND
8:2 FTOH	678-39-7	0,1 µg/L	ND
10:2 FTOH	865-86-1	0,1 µg/L	ND
6:2 FTA	17527-29-6	0,01 µg/L	ND
8:2 FTA	27905-45-9	0,01 µg/L	ND
10:2 FTA	17741-60-5	0,01 µg/L	ND
PFOSA	754-91-6	0,01 µg/L	ND
POSF	307-35-7	0,01 µg/L	ND
N-Me-FOSA	31506-32-8	0,01 µg/L	ND
N-Et-FOSA	4151-50-2	0,01 µg/L	ND
N-Me-FOSE alcohol	24448-09-7	0,01 µg/L	ND
N-Et-FOSE alcohol	1691-99-2	0,01 µg/L	ND
PF-3,7-DMOA	172155-07-6	0,01 µg/L	ND
HPFHpA	1546-95-8	0,01 µg/L	ND
4HPFUnA	34598-33-9	0,01 µg/L	ND
1H, 1H, 2H, 2H-PFOS	27619-97-2	0,01 µg/L	ND
Legend:			
ND= Not detected			



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**Phthalates**

Test Method: With reference to US EPA 8270D and ISO 18856:2004; quantification by GC-MS analysis

Substance name	CAS N.	Detection limit	Results
Di-Butyl Phthalate (DBP)	84-74-2	1 µg/L	ND
Di(2-Ethyl Hexyl) Phthalate(DEHP)	117-81-7	1 µg/L	ND
Benzyl Butyl Phthalate (BBP)	85-68-7	1 µg/L	ND
Di-Iso-Nonyl Phthalate (DINP)	28553-12-0,68515-48-0	1 µg/L	ND
Di-N-Octyl Phthalate (DNOP)	117-84-0	1 µg/L	ND
Di-Iso-Decyl Phthalate (DIDP)	26761-40-0,68515-49-1	1 µg/L	ND
Di-Iso-Butyl Phthalate (DIBP)	84-69-5	1 µg/L	ND
Di-N-Hexyl Phthalate (DNHP)	84-75-3	1 µg/L	ND
Di-(2-methoxyethyl) phthalate (DMEP)	117-82-8	1 µg/L	ND
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	1 µg/L	ND
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	1 µg/L	ND
Dipentyl phthalate (DPP)	131-18-0	1 µg/L	ND
Diisopentylphthalate	605-50-5	1 µg/L	ND
N-pentyl-isopentylphthalate	776297-69-9	1 µg/L	ND
Legend: ND= Not detected			

SCCP

Test Method: With reference to USEPA 8270; quantification by GC-MS analysis

Substance name	CAS N.	Detection limit	Results
SCCP C10-13	85535-84-8	0,5 µg/L	ND
Legend: ND= Not detected			



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**Chlorinated Solvents**

Test Method: With reference to USEPA 8260B; quantification by GC-MS analysis

Substance name	CAS N.	Detection limit	Results
Dichloromethane	75-09-2	1 µg/L	ND
Chloroform	67-66-3	1 µg/L	ND
Tetrachloromethane	56-23-5	1 µg/L	ND
1,1,2-Trichloroethane	79-00-5	1 µg/L	ND
1,1-Dichloroethane	75-34-3	1 µg/L	ND
1,2-Dichloroethane	107-06-2	1 µg/L	ND
Trichloroethylene	79-01-6	1 µg/L	ND
Perchloroethylene	127-18-4	1 µg/L	ND
1,1,1-trichloroethane	71-55-6	1 µg/L	ND
1,1,1,2-Tetrachloroethane	630-20-6	1 µg/L	ND
1,1,2,2-Tetrachloroethane	79-34-5	1 µg/L	ND
Pentachloroethane	76-01-7	1 µg/L	ND
1,1-Dichloroethylene	75-35-4	1 µg/L	ND
1,2,3-trichloropropane	96-18-4	1 µg/L	ND
Legend: ND= Not detected			

Heavy metals

Test Method: With reference to ISO17294-2 (2016) and ISO 11885 (2007); quantification by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) and Inductively Coupled Plasma with Mass Detector (ICP-MS)

Substance name	CAS N.	Detection limit	Results
Total Cadmium(Cd)	7440-43-9	0,1 µg/L	ND
Total Lead(Pb)	7439-92-1	1 µg/L	2,9
Total Mercury(Hg)	7439-97-6	0,5 µg/L	ND
Total Hexavalent chromium (Cr-VI)	18540-29-9	1 µg/L	ND
Legend: ND= Not detected			

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