

RelyOn Nutec Denmark A/S
Uglviggårdsvej 3
6705 Esbjerg Ø
Att.: Tonny Christiansen

Report code: AR-19-CA-00889887-01
Batch code: EUDKVE-00889887
Client code: CA0000723
Received on: 29.10.2019

Analytical Report

Sample type: Waste water
Sampling Point RelyOn Nutec, spildevand - / 20001561
Sampler: Eurofins Miljø Vand A/S SVT
Sampling: 29.10.2019 . 12:20
Test period: 29.10.2019 - 13.11.2019

Sample description:

Lab sample No.:	80309012	Unit	LOQ	Method	²⁾ Urel (%)
Inhibition of nitrification					
Dilution	200	ml/l		Preparation	
Inhibition of nitrification 1 conc/std sludge	< 20	%	20	EN ISO 9509:2006 mod.	30
Sludge used for Inhibition of nitrification					
Sludge from a specific treatment plan				*	
Organic Assembly Parameters					
Oil	< 0.1	mg/l	0.1	DS/R 209 mod. Spectrophotometry (IR)	15
Aromatic hydrocarbons					
Benzene	0.13	µg/l	0.02	ISO 11423-2:1997 mod. GC-MS	20
Toluene	0.052	µg/l	0.02	ISO 11423-2:1997 mod. GC-MS	15
Ethylbenzene	< 0.02	µg/l	0.02	ISO 11423-2:1997 mod. GC-MS	20
Xylene (ortho-)	0.043	µg/l	0.02	ISO 11423-2:1997 mod. GC-MS	15
Xylene (meta-, para-)	0.028	µg/l	0.02	ISO 11423-2:1997 mod. GC-MS	15
Sum of xylenes	0.071	µg/l		ISO 11423-2:1997 mod. GC-MS	20
BTEX (sum)	0.25	µg/l		ISO 11423-2:1997 mod. GC-MS	20
PAH-compounds					
Acenaphthene	< 0.01	µg/l	0.01	M 0250 GC-MS	30
Fluorene	0.020	µg/l	0.01	M 0250 GC-MS	30
Phenanthrene	0.021	µg/l	0.01	M 0250 GC-MS	30
Fluoranthene	0.047	µg/l	0.01	M 0250 GC-MS	30
Pyrene	0.14	µg/l	0.01	M 0250 GC-MS	30
Benzo[b+j+k]fluoranthene	0.012	µg/l	0.01	M 0250 GC-MS	30
Benzo(a)pyrene	< 0.01	µg/l	0.01	M 0250 GC-MS	30
Indeno(1,2,3-cd)pyrene	< 0.01	µg/l	0.01	M 0250 GC-MS	30
Benzo(g,h,i)perylene	< 0.01	µg/l	0.01	M 0250 GC-MS	30
PAH, all	0.24	µg/l		M 0250 GC-MS	
Dioxins					
2,3,7,8-TetraCDD	< 0.720	pg/l	0.72	Internal GC-HRMS	A
1,2,3,7,8-PentaCDD	< 0.960	pg/l	0.96	Internal GC-HRMS	A
1,2,3,4,7,8-HexaCDD	< 1.92	pg/l	1.9	Internal GC-HRMS	A
1,2,3,6,7,8-HexaCDD	< 1.92	pg/l	1.9	Internal GC-HRMS	A
1,2,3,7,8,9-HexaCDD	< 1.92	pg/l	1.9	Internal GC-HRMS	A

Legend:

<: less than
>: greater than
#: none of the parameters detected
LOQ Limit of quantification

*) : Not included in the accreditation
n.d: not detected
NM: non-measurable
2): subcontractors

Urel (%): The expanded relative measurement uncertainty, with a coverage factor 2. For results at the level of detection limit the uncertainty might be higher than reported.

2): Uncertainties of microbiological parameters are given as a logarithmical standard deviation

The test results relate only to the items tested.

The report shall not be reproduced except in full without the written approval of the testing laboratory.

RelyOn Nutec Denmark A/S
Uglviggårdsvej 3
6705 Esbjerg Ø
Att.: Tonny Christiansen

Report code: AR-19-CA-00889887-01
Batch code: EUDKVE-00889887
Client code: CA0000723
Received on: 29.10.2019

Analytical Report

Sample type: Waste water
Sampling Point: RelyOn Nutec, spildevand - / 20001561
Sampler: Eurofins Miljø Vand A/S SVT
Sampling: 29.10.2019 . 12:20
Test period: 29.10.2019 - 13.11.2019

Sample description:

Lab sample No.:	80309012	Unit	LOQ	Method	^{m)} Urel (%)
1,2,3,4,6,7,8-HeptaCDD	< 1.64	pg/l	1.6	Internal GC-HRMS	A
OctaCDD	< 11.6	pg/l	12	Internal GC-HRMS	A
2,3,7,8-TetraCDF	< 1.28	pg/l	1.3	Internal GC-HRMS	A
1,2,3,7,8-PentaCDF	< 1.72	pg/l	1.7	Internal GC-HRMS	A
2,3,4,7,8-PentaCDF	< 1.72	pg/l	1.7	Internal GC-HRMS	A
1,2,3,4,7,8-HexaCDF	< 1.60	pg/l	1.6	Internal GC-HRMS	A
1,2,3,6,7,8-HexaCDF	< 1.60	pg/l	1.6	Internal GC-HRMS	A
1,2,3,7,8,9-HexaCDF	< 1.60	pg/l	1.6	Internal GC-HRMS	A
2,3,4,6,7,8-HexaCDF	< 1.60	pg/l	1.6	Internal GC-HRMS	A
1,2,3,4,6,7,8-HeptaCDF	< 1.52	pg/l	1.5	Internal GC-HRMS	A
1,2,3,4,7,8,9-HeptaCDF	< 1.52	pg/l	1.5	Internal GC-HRMS	A
OctaCDF	< 3.20	pg/l	3.2	Internal GC-HRMS	A
WHO(2005)-PCDD/F TEQ (lower-bound)	ND	pg/l		Internal GC-HRMS	A
WHO(2005)-PCDD/F TEQ (upper-bound)	3.64	pg/l	3.6	Internal GC-HRMS	A
I-TEQ (NATO/CCMS) (lower-bound)	ND	pg/l		Internal GC-HRMS	A
I-TEQ (NATO/CCMS) (upper-bound)	3.55	pg/l		Internal GC-HRMS	A
PFAS-compounds					
PFBA (Perfluorobutanoic acid)	0.48	µg/l	0.001	* DIN38407-42, UNEP Chemicals Branch 2015 mod. LC-MS/MS	B 40
PFBS (Perfluorobutanesulfonic acid)	0.016	µg/l	0.001	* DIN38407-42, UNEP Chemicals Branch 2015 mod. LC-MS/MS	B 40
PFPeA (Perfluoropentanoic acid)	1.8	µg/l	0.001	* DIN38407-42, UNEP Chemicals Branch 2015 mod. LC-MS/MS	B 40
PFHxA (Perfluorohexanoic acid)	3.0	µg/l	0.001	* DIN38407-42, UNEP Chemicals Branch 2015 mod. LC-MS/MS	B 40
PFHxS (Perfluorohexanesulfonic acid)	0.39	µg/l	0.001	* DIN38407-42, UNEP Chemicals Branch 2015 mod. LC-MS/MS	B 40
PFHpA (Perfluoroheptanoic acid)	0.84	µg/l	0.001	* DIN38407-42, UNEP Chemicals Branch 2015 mod. LC-MS/MS	B 40
PFOA (Perfluorooctanoic acid)	0.21	µg/l	0.001	* DIN38407-42, UNEP Chemicals Branch 2015 mod. LC-MS/MS	B 40
PFOS (Perfluorooctanesulfonic acid)	2.2	µg/l	0.001	* DIN38407-42, UNEP Chemicals Branch 2015 mod. LC-MS/MS	B 40

Legend:

<: less than
>: greater than
#: none of the parameters detected
LOQ Limit of quantification

*) Not included in the accreditation
n.d: not detected
NM: non-measurable
m): subcontractors

Urel (%): The expanded relative measurement uncertainty, with a coverage factor 2. For results at the level of detection limit the uncertainty might be higher than reported.

ⁿ⁾: Uncertainties of microbiological parameters are given as a logarithmical standard deviation

The test results relate only to the items tested.

The report shall not be reproduced except in full without the written approval of the testing laboratory.

RelyOn Nutec Denmark A/S
Uglviggårdsvej 3
6705 Esbjerg Ø
Att.: Tonny Christiansen

Report code: AR-19-CA-00889887-01
Batch code: EUDKVE-00889887
Client code: CA0000723
Received on: 29.10.2019

Analytical Report

Sample type: Waste water
Sampling Point: RelyOn Nutec, spildevand - / 20001561
Sampler: Eurofins Miljø Vand A/S SVT
Sampling: 29.10.2019 . 12:20
Test period: 29.10.2019 - 13.11.2019

Sample description:

Lab sample No.:	80309012	Unit	LOQ	Method	Urel (%)
6:2 FTS (Fluorotelomer sulfonate)	33	µg/l	0.001	* DIN38407-42, UNEP Chemicals Branch 2015 mod. LC-MS/MS	B 40
PFOSA (Perfluorooctanesulfonamide)	<0.001	µg/l	0.001	* DIN38407-42, UNEP Chemicals Branch 2015 mod. LC-MS/MS	B 40
PFNA (Perfluorononanoic acid)	0.039	µg/l	0.001	* DIN38407-42, UNEP Chemicals Branch 2015 mod. LC-MS/MS	B 40
PFDA (Perfluorodecanoic acid)	0.028	µg/l	0.001	* DIN38407-42, UNEP Chemicals Branch 2015 mod. LC-MS/MS	B 40
Sum of PFAS	42	µg/l	0	* DIN38407-42, UNEP Chemicals Branch 2015 mod. LC-MS/MS	B

Information from sampler

Sampling method	Spot test		ISO 5667-10:1992:2007	C
Water temperature	11.0	°C	ISO 5667-10:1992:2007	C
pH	7.3	pH	ISO 10523	C

Subcontractors:


A: Eurofins GfA Lab Service GmbH (Hamburg) (DIN EN ISO/IEC 17025:2005 D-PL-14629-01-00)
B: Eurofins Food & Feed Testing Sweden (Lidköping)
C: Eurofins Environment Water A/S (DS EN ISO/IEC 17025 DANAK 555)

80309012 Sample comment:

Som standardrutine bliver alle prøver til totalkulbrinter på FID og/eller kulbrinter på GC-MS dekanteret inden analyse.
Sum af xylener er summen af resultaterne for Ethylbenzen, m+p-Xylen og o-Xylen.

13.11.2019

Customer center
Tel 70224266


Birgit Neess Fredslund
Customer Adviser

Legend:

<: less than
>: greater than
#: none of the parameters detected
LOQ Limit of quantification
*): Not included in the accreditation
n.d: not detected
NM: non-measurable
Ⓜ): subcontractors

Urel (%): The expanded relative measurement uncertainty, with a coverage factor 2. For results at the level of detection limit the uncertainty might be higher than reported.

°): Uncertainties of microbiological parameters are given as a logarithmical standard deviation

The test results relate only to the items tested.

The report shall not be reproduced except in full without the written approval of the testing laboratory.