

GC Rieber Oils AS
Teistholmsundet 6
6512 KRISTIANSUND

AR-20-MO-010721-01

EUNOMO2-00088355

Reference: 006-10521-257696

ANALYTICAL REPORT

Symbol description:

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<: Less than >: Greater than nd: Not detected. Bacteriological results such as <1 or <50 means 'not detected'.

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The results apply to the sample as received.

Sample code: **440-2020-0522-023**

Description: TG

Sampled by:

1812 TG Fortuna F08/20

Client Sample: 14271

Analysis	Result	Unit	LOQ:	MU	Method
b) JCHRD Arsenic (As)	<1	µg/kg	1		DIN EN 15763:2010 (2010-04), mod.
b) JCHRA Lead (Pb)	2.0	µg/kg	1	45%	DIN EN 15763:2010 (2010-04), mod.
b) JCHRB Cadmium (Cd)	<1	µg/kg	1		DIN EN 15763:2010 (2010-04), mod.
b) JCHRC Mercury (Hg)	<1	µg/kg	1		DIN EN 15763:2010 (2010-04), mod.
b) JJW2B Copper (Cu)	<0.1	mg/kg	0.1		DIN EN ISO 17294-2 (2017-01), mod.
b) J1043 Iron (Fe)	<0.5	mg/kg	0.5		EN ISO 11885 (2009-09), mod.
a) Dioxins and Furans (17 PCDD/F)					
a) GFL13 2,3,7,8-TetraCDD	< 0.0597	pg/g			Internal
a) GFL13 1,2,3,7,8-PentaCDD	< 0.0786	pg/g			Internal
a) GFL13 1,2,3,4,7,8-HexaCDD	< 0.119	pg/g			Internal
a) GFL13 1,2,3,6,7,8-HexaCDD	< 0.164	pg/g			Internal
a) GFL13 1,2,3,7,8,9-HexaCDD	< 0.154	pg/g			Internal
a) GFL13 1,2,3,4,6,7,8-HeptaCDD	< 0.252	pg/g			Internal
a) GFL13 OctaCDD	< 1.82	pg/g			Internal
a) GFL13 2,3,7,8-TetraCDF	0.211	pg/g			Internal
a) GFL13 1,2,3,7,8-PentaCDF	< 0.113	pg/g			Internal
a) GFL13 2,3,4,7,8-PentaCDF	< 0.176	pg/g			Internal
a) GFL13 1,2,3,4,7,8-HexaCDF	< 0.186	pg/g			Internal
a) GFL13 1,2,3,6,7,8-HexaCDF	< 0.170	pg/g			Internal
a) GFL13 1,2,3,7,8,9-HexaCDF	< 0.126	pg/g			Internal
a) GFL13 2,3,4,6,7,8-HexaCDF	< 0.154	pg/g			Internal
a) GFL13 1,2,3,4,6,7,8-HeptaCDF	< 0.176	pg/g			Internal
a) GFL13 1,2,3,4,7,8,9-HeptaCDF	< 0.123	pg/g			Internal
a) GFL13 OctaCDF	< 0.377	pg/g			Internal
a) GFL13 WHO(2005)-PCDD/F TEQ (lower-bound)	0.0211	pg/g			Internal
a) GFL13 WHO(2005)-PCDD/F TEQ (medium-bound)	0.175	pg/g			Internal
a) GFL13 WHO(2005)-PCDD/F TEQ (upper-bound)	0.329	pg/g			Internal
a) polychlorinated biphenyls (12 WHO PCB + 6 ICES PCB)					
a) GFL14 PCB 77	< 5.66	pg/g			Internal
a) GFL14 PCB 81	< 0.849	pg/g			Internal
a) GFL14 PCB 105	48.9	pg/g			Internal
a) GFL14 PCB 114	2.22	pg/g			Internal
a) GFL14 PCB 118	135	pg/g			Internal
a) GFL14 PCB 123	1.56	pg/g			Internal
a) GFL14 PCB 126	3.05	pg/g			Internal
a) GFL14 PCB 156	49.9	pg/g			Internal
a) GFL14 PCB 157	13.0	pg/g			Internal
a) GFL14 PCB 167	35.2	pg/g			Internal
a) GFL14 PCB 169	< 3.77	pg/g			Internal
a) GFL14 PCB 189	11.1	pg/g			Internal
a) GFL14 WHO(2005)-PCB TEQ (lower-bound)	0.314	pg/g			Internal
a) GFL14 WHO(2005)-PCB TEQ (medium-bound)	0.371	pg/g			Internal

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a)	GFL14	WHO(2005)-PCB TEQ (upper-bound)	0.428	pg/g		Internal
a)	GFL14	PCB 28	< 0.314	ng/g		Internal
a)	GFL14	PCB 52	< 0.314	ng/g		Internal
a)	GFL14	PCB 101	< 0.314	ng/g		Internal
a)	GFL14	PCB 138	0.602	ng/g		Internal
a)	GFL14	PCB 153	0.869	ng/g		Internal
a)	GFL14	PCB 180	0.738	ng/g		Internal
a)	GFL14	Total 6 ndl-PCB (lower-bound)	2.21	ng/g		Internal
a)	GFL14	Total 6 ndl-PCB (medium-bound)	2.68	ng/g		Internal
a)	GFL14	Total 6 ndl-PCB (upper-bound)	3.15	ng/g		Internal
a) TEQ-Totals WHO-PCDD/F and PCB						
a)	GFTE1	WHO(2005)-PCDD/F+PCB TEQ (lower-bound)	0.335	pg/g		Internal
a)	GFTE1	WHO(2005)-PCDD/F+PCB TEQ (medium-bou	0.546	pg/g		Internal
a)	GFTE1	WHO(2005)-PCDD/F+PCB TEQ (upper-bound)	0.757	pg/g	25%	Internal
b) PAH acc. to EU 2005/108 (15+1)						
b)	JC00V	Benzo(a)pyrene	0.5	µg/kg	0.5	Internal Method
b)	JC00V	Benz(a)anthracene	<0.5	µg/kg	0.5	Internal Method
b)	JC00V	Chrysene	<0.5	µg/kg	0.5	Internal Method
b)	JC00V	Benzo(b)fluoranthene	0.6	µg/kg	0.5	Internal Method
b)	JC00V	Benzo(k)fluoranthene	<0.5	µg/kg	0.5	Internal Method
b)	JC00V	Indeno(1,2,3-cd)pyrene	0.7	µg/kg	0.5	Internal Method
b)	JC00V	Dibenz(a,h)anthracene	<0.5	µg/kg	0.5	Internal Method
b)	JC00V	Benzo(g,h,i)perylene	0.7	µg/kg	0.5	Internal Method
b)	JC00V	Cyclopenta(c,d)pyrene	<1	µg/kg	1	Internal Method
b)	JC00V	Benzo-(c)-fluorene	<1	µg/kg	1	Internal Method
b)	JC00V	Benzo-(j)-fluoranthene	<0.5	µg/kg	0.5	Internal Method
b)	JC00V	Dibenzo(a,e)pyrene	<1	µg/kg	1	Internal Method
b)	JC00V	Dibenzo(a,h)pyrene	<1	µg/kg	1	Internal Method
b)	JC00V	Dibenzo(a,i)pyrene	<1	µg/kg	1	Internal Method
b)	JC00V	Dibenzo(a,l)pyrene	<1	µg/kg	1	Internal Method
b)	JC00V	5-Methylchrysene	<1	µg/kg	1	Internal Method
b)	JC00V	Sum of all positive identified PAH	2.5	µg/kg		Internal Method
b)	JC00V	Sum PAH 4	1.1	µg/kg		Internal Method
a) organochlorine pesticides (27 OCP + endosulfane): food, feed, biota, fishoil, fishmeal, milk powder						
a)	GFB53	Endosulfan I (alpha-endosulfan)	< 1.30	ng/g		Internal
a)	GFB53	Endosulfan II (beta-Endosulfan)	< 1.00	ng/g		Internal
a)	GFB53	Endosulfan sulphate	< 1.00	ng/g		Internal
a)	GFB53	Pentachlorobenzene	< 1.30	ng/g		Internal
a)	GFB53	Hexachlorobenzene (HCB)	< 1.30	ng/g		Internal
a)	GFB53	alpha-HCH	< 0.250	ng/g		Internal
a)	GFB53	beta-HCH	< 0.250	ng/g		Internal
a)	GFB53	gamma-HCH (Lindane)	< 0.250	ng/g		Internal
a)	GFB53	delta-HCH	< 0.250	ng/g		Internal
a)	GFB53	o,p'-DDT	< 0.250	ng/g		Internal
a)	GFB53	p,p'-DDT	< 0.250	ng/g		Internal
a)	GFB53	o,p'-DDE	< 0.250	ng/g		Internal
a)	GFB53	p,p'-DDE	< 0.380	ng/g		Internal
a)	GFB53	o,p'-DDD	< 0.250	ng/g		Internal
a)	GFB53	p,p'-DDD	< 0.630	ng/g		Internal
a)	GFB53	Aldrin	< 0.250	ng/g		Internal
a)	GFB53	Dieldrin	< 0.380	ng/g		Internal
a)	GFB53	Endrin	< 1.30	ng/g		Internal

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a) GFB53 Toxaphene Parlar 26	< 1.30 ng/g	Internal
a) GFB53 Toxaphene Parlar 50	< 1.30 ng/g	Internal
a) GFB53 Toxaphene Parlar 62	< 2.50 ng/g	Internal
a) GFB53 Heptachlor	< 0.250 ng/g	Internal
a) GFB53 Mirex	< 0.250 ng/g	Internal
a) GFB53 cis-Chlordane	< 0.250 ng/g	Internal
a) GFB53 trans-Chlordane	< 0.250 ng/g	Internal
a) GFB53 oxy-Chlordane	< 0.750 ng/g	Internal
a) GFB53 trans-Nonachlor	< 0.250 ng/g	Internal
a) GFB53 cis-Heptachlorepoxide	< 0.380 ng/g	Internal
a) GFB53 trans-Heptachlorepoxide	< 1.30 ng/g	Internal
a) GFB53 Octachlorstyrene	< 0.250 ng/g	Internal

a) PCB 209, polychlorinated biphenyls 209 in total: food, feed, fishoil, fishmeal, feed, biota

a) GFB01 Total MonoCB	nd	Internal
a) GFB01 Total DiCB	nd	Internal
a) GFB01 Total TriCB	nd	Internal
a) GFB01 Total TetraCB	nd	Internal
a) GFB01 Total PentaCB	0.360 ng/g	Internal
a) GFB01 Total HexaCB	2.11 ng/g	Internal
a) GFB01 Total HeptaCB	1.88 ng/g	Internal
a) GFB01 Total OctaCB	0.510 ng/g	Internal
a) GFB01 Total NonaCB	0.0614 ng/g	Internal
a) GFB01 DecaCB	0.0680 ng/g	Internal
a) GFB01 Total Mono- to DecaCB (lower bound)	4.99 ng/g	Internal
a) GFB01 Total Mono- to DecaCB (medium bound)	5.57 ng/g	Internal
a) GFB01 Total Mono- to DecaCB (upper bound)	6.14 ng/g	Internal

Test was performed by / subcontractor:

- a) Eurofins GfA Lab Service GmbH (Hamburg), Neuländer Kamp 1 a, D-21079, Hamburg DIN EN ISO/IEC 17025:2005 D-PL-14629-01-00,
b) Eurofins WEJ Contaminants GmbH (Hamburg), Neuländer Kamp 1, D-21079, Hamburg EN ISO/IEC 17025:2005 DAKKS D-PL-14602-01-00,



Merete Meum

Analytical Service Manager

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