


Issued to: GIRORGANIC

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Kind Attention: Ahir Nitin

Lab Ref. No.: AA017580

Booking ID : BID-002587

Report number : NCL-005715

Report issue date : 01-08-2023

ULR No. : TC1151623000005118F

Customer Request ref.: Mail Date:22.07.2023

Customer Provided Information

Name of the Sample:	Ghee		
Batch Number:	GO2306230623	Customer Sample Code:	NA
Mfg. Date:	06 Jul 2023	Exp. Date:	05 Jul 2024
Other details (if any):	A2 GIR COW GHEE		

Laboratory Provided Information

Sample Receipt Date:	24-07-2023	Analysis Completion Date:	31-07-2023
Sampling Details:	NA		
Other details (if any):	NA		

TEST RESULTS

1 Chemical

1.1 Food & Agricultural products (except Human Milk)

Sr. No	Parameters	Unit	Results	Specification FSSAI requirement	LOQ	Test Method
1	Free fatty acid (oleic acid)	%	As Such Basis 0.440	2.000 (Max.)	-	Clause 11 of IS 3508 : 1966 (RA 2018)
2	Baudouin test		As Such Basis Negative	Negative	-	Method 13.6 FSSAI Manual for Milk and Milk products: 2016
3	Butyro Refractometer reading (at 40 degree celsius)		As Such Basis 42.74	40 to 44	-	Method 13.3 FSSAI Manual for Milk and Milk products: 2016
4	Reichert Meissl (RM) value		As Such Basis 24.702	24 (Min.)	-	Clause 12 of IS 3508 : 1966 (RA 2018)
5	Polenske value		As Such Basis 1.611	0.5 to 2	-	Clause 12 of IS 3508 : 1966 (RA 2018)
6	Moisture	%	0.192	0.500 (Max.)	-	IS 3508 : 1966
7	Milk fat (%)	%	As Such Basis > 99.900	99.500 (Min.)	-	Clause 4 of IS 3509 : 1966
8	Iodine Value		As Such Basis 36.240	25.000 - 38.000	-	Method-12.0, Manual for analysis of Oils and Fats,



FSSAI-2016

9	Saponification Value	As Such Basis	221.613	205.000 - 235.000	-	Method-9.0, Manual for analysis of Oils and Fats, FSSAI-2016
10	β-Sitosterol	mg/kg As Such Basis	Below limit of quantification	Absent	10.000	FSSAI file no.1-90/FSSAI/SP(MS&A)

1.2 Residues in Food Products

Sr. No	Parameters	Unit	Results	Specification FSSAI requirement	LOQ	Test Method
1	Lead	mg/kg As Such Basis	Below limit of quantification	2.500 (Max.)	0.050	CALF/SOP/CHEM/MMS/07 (By ICP-MS)
2	Arsenic	mg/kg As Such Basis	Below limit of quantification	1.100 (Max.)	0.500	CALF/SOP/CHEM/MMS/07 (By ICP-MS)
3	Cadmium	mg/kg As Such Basis	Below limit of quantification	1.500 (Max.)	0.040	CALF/SOP/CHEM/MMS/07 (By ICP-MS)
4	Mercury	mg/kg As Such Basis	Below limit of quantification	1.000 (Max.)	0.075	CALF/SOP/CHEM/MMS/07 (By ICP-MS)
5	Tin	mg/kg As Such Basis	Below limit of quantification	250.000 (Max.)	5.000	CALF/SOP/CHEM/MMS/07 (By ICP-MS)
6	Copper	mg/kg As Such Basis	Below limit of quantification	30.000 (Max.)	5.000	CALF/SOP/CHEM/MMS/07 (By ICP-MS)
7	Methyl Mercury	mg/kg As Such Basis	Below limit of quantification	0.250 (Max.)	0.125	CALF/SOP/CHEM/MMS/07 (By ICP-MS)
8	Melamine	mg/kg As Such Basis	Below limit of quantification	2.500 (Max.)	1.000	ISO 15495 : 2010 By LCMS
9	2,4 D	mg/kg As Such Basis	Below limit of quantification	0.050 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
10	Acephate	mg/kg As Such Basis	Below limit of quantification	0.020 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
11	Acetamiprid	mg/kg As Such Basis	Below limit of quantification	0.020 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
12	Azoxystrobin	mg/kg As Such Basis	Below limit of quantification	0.010 (Max.)	0.005	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
13	Bifenthrin	mg/kg As Such Basis	Below limit of quantification	0.200 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by GC-MS/MS
14	Bitertanol	mg/kg As Such Basis	Below limit of quantification	0.050 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
15	Buprofezin	mg/kg As Such Basis	Below limit of quantification	0.010 (Max.)	0.005	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
16	Carbaryl	mg/kg As Such Basis	Below limit of quantification	0.050 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
17	Carbendazim	mg/kg As Such Basis	Below limit of quantification	0.100 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
18	Carbofuran (sum of carbofuran and 3-hydroxy carbofuran)	mg/kg As Such Basis	Below limit of quantification	0.050 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS



expressed as carbofuran)							
19	Chlorantraniliprole	mg/kg	As Such Basis	Below limit of quantification	0.050 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
20	Chlorothalonil	mg/kg	As Such Basis	Below limit of quantification	0.070 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by GC-MS/MS
21	Chlorpyrifos	mg/kg	As Such Basis	Below limit of quantification	0.020 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by GC-MS/MS
22	Chlothianidin	mg/kg	As Such Basis	Below limit of quantification	0.020 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
23	Cypermethrin (sum of isomers) (fat soluble residue)	mg/kg	As Such Basis	Below limit of quantification	0.050 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by GC-MS/MS
24	Deltamethrin/Decamethrin	mg/kg	As Such Basis	Below limit of quantification	0.050 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by GC-MS/MS
25	Dichlorvos	mg/kg	As Such Basis	Below limit of quantification	0.010 (Max.)	0.005	CALF/SOP/CHEM/CCR/50 by GC-MS/MS
26	Difenoconazol	mg/kg	As Such Basis	Below limit of quantification	0.020 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
27	Dimethoate	mg/kg	As Such Basis	Below limit of quantification	0.050 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
28	Dinotefuran	mg/kg	As Such Basis	Below limit of quantification	0.100 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
29	Edifenphos	mg/kg	As Such Basis	Below limit of quantification	0.010 (Max.)	0.005	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
30	Dithiocarbamates(the residue tolerance limit are determined and expressed as mg/CS ₂ /kg and refer separately to the residues arising from any or each group of dithiocarbamates) (b) Ethylene bis-dithiocarbamates resulting from the use of mancozeb, man eb, propineb, Metiram, Thiram, Zineb and Ziram)	mg/kg	As Such Basis	Below limit of quantification	0.050 (Max.)	0.025	CALF/SOP/CHEM/CCR/21
31	Emamectin benzoate	mg/kg	As Such Basis	Below limit of quantification	0.010 (Max.)	0.005	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
32	Ethion (Residues to be determined as ethion and its oxygen analogue and expressed as ethion)	mg/kg	As Such Basis	Below limit of quantification	0.500 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by GC-MS/MS
33	Ethofenprox (Etofenprox)	mg/kg	As Such Basis	Below limit of quantification	0.020 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by GC-MS/MS
34	Fenpropathrin	mg/kg	As Such	Below limit of	0.100 (Max.)	0.010	CALF/SOP/CHEM/CCR/50



			Basis	quantification			by GC-MS/MS
35	Fenvalerate (fat soluble residue)	mg/kg	As Such Basis	Below limit of quantification	0.010 (Max.)	0.005	CALF/SOP/CHEM/CCR/50 by GC-MS/MS
36	Fipronil	mg/kg	As Such Basis	Below limit of quantification	0.020 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by GC-MS/MS
37	Flubendiamide	mg/kg	As Such Basis	Below limit of quantification	0.100 (Max.)	0.050	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
38	Flusilazole	mg/kg	As Such Basis	Below limit of quantification	0.050 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
39	Glufosinate ammonium	mg/kg	As Such Basis	Below limit of quantification	0.020 (Max.)	0.010	CALF/SOP/CHEM/CCR/21 by LC-MS/MS
40	Imidacloprid	mg/kg	As Such Basis	Below limit of quantification	0.100 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
41	Indoxacarb	mg/kg	As Such Basis	Below limit of quantification	0.100 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
42	Kresoxim-methyl	mg/kg	As Such Basis	Below limit of quantification	0.010 (Max.)	0.005	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
43	Methomyl	mg/kg	As Such Basis	Below limit of quantification	0.020 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
44	Methyl Chlorophenoxy Acetic Acid (MCPA)	mg/kg	As Such Basis	Below limit of quantification	0.040 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
45	Metolachlor	mg/kg	As Such Basis	Below limit of quantification	0.010 (Max.)	0.005	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
46	Monocrotophos	mg/kg	As Such Basis	Below limit of quantification	0.020 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
47	Oxydemeton-Methyl	mg/kg	As Such Basis	Below limit of quantification	0.010 (Max.)	0.005	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
48	Paraquat Dichloride (Determined as Paraquat cations)	mg/kg	As Such Basis	Below limit of quantification	0.010 (Max.)	0.005	CALF/SOP/CHEM/CCR/21 by LC-MS/MS
49	Penconazole	mg/kg	As Such Basis	Below limit of quantification	0.010 (Max.)	0.005	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
50	Phenthoate	mg/kg	As Such Basis	Below limit of quantification	0.010 (Max.)	0.005	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
51	Phorate (sum of Phorate, its oxygen analogue and their sulphoxides and sulphones, expressed as phorate)	mg/kg	As Such Basis	Below limit of quantification	0.050 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by GC-MS/MS
52	Pirimiphos-methyl	mg/kg	As Such Basis	Below limit of quantification	0.050 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by GC-MS/MS
53	Propiconazole	mg/kg	As Such Basis	Below limit of quantification	0.010 (Max.)	0.005	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
54	Pyraclostrobin	mg/kg	As Such Basis	Below limit of quantification	0.030 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
55	Sum of Benomyl & Carbendazim	mg/kg	As Such Basis	Below limit of quantification	0.100 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS



56	Tebuconazole	mg/kg	As Such Basis	Below limit of quantification	0.010 (Max.)	0.005	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
57	Thiacloprid	mg/kg	As Such Basis	Below limit of quantification	0.050 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
58	Thiamethoxam	mg/kg	As Such Basis	Below limit of quantification	0.050 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
59	Thiophanate-methyl	mg/kg	As Such Basis	Below limit of quantification	0.050 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
60	Triadimefon	mg/kg	As Such Basis	Below limit of quantification	0.010 (Max.)	0.005	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
61	Trichlorfon	mg/kg	As Such Basis	Below limit of quantification	0.050 (Max.)	0.010	CALF/SOP/CHEM/CCR/50 by LC-MS/MS
62	Tricentanol	mg/kg	As Such Basis	Below limit of quantification	0.010 (Max.)	0.010	CALF/SOP/CHEM/CCR/21 by GC-MS/MS

The above sample complies to the requirements of specified standard for the tested parameters.

Remarks:- LOQ : Limit of Quantification.

V.No : M

End of Test Report

Authorized Signatory
(Chemical)



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 - 2) The sample description is given as specified by the customer and NDDB CALF Ltd is not responsible for verifying it in all cases. Sample is not drawn by NDDB CALF Ltd (unless specified in the Report) and analysis will be conducted on the "as is" received basis unless specified otherwise.
 - 3) NDDB CALF Ltd is not responsible for any variation(s) in characteristics of samples taken up for analysis, under any circumstances including that of holding up/delay caused for more clarification(s) by the customer.
 - 4) Samples are disposed-off after the prescribed period of retention as mentioned below or as per regulatory requirements:
 - a) Perishable items- Immediately after reporting.
 - b) Non-perishable items after one month of reporting.
 - 5) The test reports shall not be reproduced wholly or in parts or in any manner whatsoever by anyone and cannot be used as an evidence in any court of law, unless required as per the directions of any court and shall not be used in advertising media/social media/print media/any other media, without prior written permission of the Managing Director/Dy. MD, NDDB CALF Ltd.
 - 6) NDDB CALF Ltd does not owe any responsibility for any consequences/conclusions drawn, in the event, customer is circulating the reports on social media. Further, such customers are liable to be prosecuted and for payment of damages if any caused to the NDDB CALF Ltd.
 - 7) NDDB CALF Ltd maintains strict confidentiality of all the raw data for analysis and test result(s)/report(s) and does not reveal such information to any third party, unless it is required under law from the Competent Authority/Court.
 - 8) Test report(s) is/are issued strictly on the basis of information, documents and/ or samples provided by the customer and solely for the benefit of the customer who shall be solely responsible for acting, on the basis of such report or finding. NDDB CALF Ltd shall not be liable and responsible to the customer or any third party for any actions taken or not taken on the basis of such report or finding.
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 - 11) The customer is liable to pay the testing charges as decided and revised from time to time by NDDB CALF Ltd and customers shall pay all the charges and costs either in advance or at the time of handing over the samples for analysis or before collecting the report, as instructed by the NDDB CALF Ltd. The fee is non-refundable and applicable taxes, surcharges, cess including GST shall be levied on the aforementioned charges and payable by the Customer.
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- By placing any work order or sending samples for testing, the customer confirms that they accept the applicable NDDB CALF Ltd terms & condition of service.