Laboratory		CARe Keralam, KINFRA, Small Industries Park, Nalukettu Road, Koratty, Thrissur, Kerala				
Accr	editation Standard	ISO/IEC 17025: 2005				
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I.	DRUGS & PHARMAG	CEUTICALS				
1.	Natural Drugs (Medici	nal Plant Preparations)				
a.	Asava&Arishta (Fermented Liquids) (Asokarishtam, Abhayarishtam, Aravindasavam, Chandanasavam, Dashamularishta,	рН	API (Part 1) Vol.1, (1st Edition Page 156	on) 1 to 1	4	
		Total solids	IP 2014, Vol.1, Page 277	0.05	% to 90.0 %	
		Specific gravity	API (Part 1) Vol.1, (1st Editi Page 161	(on) 0.5 to	2.0	
	Draksharishtam, Kutajarishtam,	Alcohol content	IP 2014, Vol.1, Page 116	0.5 %	to 50 %	
	Kanakasavam Lodhrasavam,	Total acidity	IS 2860: 1964, Page 10-11	0.01	% to 15 %	
	Punarnavasam etc.)	Reducing Sugar	API (Part 1) Vol.VI (1st Editi Page 340	ion) 0.5 %	to 75.0 %	
		Total sugar	API (Part 1) Vol.VI, (1st Edit Page 337	tion) 0.5 %	5 to 85 %	
		Lead	CKL/ANL/AY-008 Issue No. 1 Issue Date - 01.05.2014	1		
		Arsenic	CKL/ANL/AY-008 0.05 mg/l Issue No. 1 Issue Date - 01.05.2014		mg/kg to 100 mg/kg	
		Mercury	CKL/ANL/AY-008 Issue No. 1 Issue Date - 01.05.2014	0.05	mg/kg to 100 mg/kg	
		Cadmium	CKL/ANL/AY-008 Issue No. 1 Issue Date - 01.05.2014	0.05	mg/kg to 100 mg/kg	

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b.	Avaleha/Lehyam (Confectionary/ semi solid)	Loss on Drying at 105 °C	API Part 1, Vol.1, 1 <sup>st</sup> Edition) Page 162	0.1 % to 50.0 %
	Agastyarasayanam, Aswagandhadilehya	Total Ash	IP 2014, Vol.1, Page 98	0.05 % to 30.0 %
	m,Brahma rasayanam,	Acid insoluble ash	IP 2014, Vol.1, Page 98	0.05 % to 5.0 %
	Dashamoolara- sayanam,	Alcohol soluble extractive	IP 2014, Vol. 1, Page 277	0.1 % to 95.0 %
	Chyavanaprasam, Marichadilehyam,	Water soluble extractive	IP 2014, Vol. 1, Page 277	0.1 % to 95.0 %
	Narasimhara- sayanam, Sathavarigulam, Sukumaralehyam, Vilwadilehyam etc.	pH (10% aqueous extract)	API (Part 1) Vol.1, (1st Edition) Page 156	1 % to 14 %
		Total acidity	IS 2860: 1964, Page 10-11	0.01 to 20
	,	Total solids	IP 2014, Vol.1, Page 277	0.05 % to 90.0 %
		Total Fat	IS 2711: 1989	0.5 % to 70 %
		Reducing Sugar	API (Part 1) Vol.VI (1st Edition) Page 340	1.0 % to 65.0 %
		Total Sugar	API (Part 1) Vol.VI (1st Edition) Page 337	1.0 % to 75.0 %
		Lead	CKL/ANL/AY-008 Issue No. 1	0.05  mg/kg to $100  mg/kg$
		Mercury	Issue Date - 01.05.2014	0.05  mg/kg to $100  mg/kg$
		Cadmium		0.05  mg/kg to $100  mg/kg$
		Arsenic		0.05  mg/kg to $100  mg/kg$

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Avaleha/Lehyam	Organochlorine Pesticides				
	(Confectionary/ semi solid) Agastyarasayanam, Aswagandhadilehya	Alachlor	CKL/ANL/AY-020 50 Issue No. 1 Issue Date - 01.05.2014	$50.0~\mu g/l$ to $500~\mu g/l$	
		Aldrin			
	m,Brahma rasayanam,	Dieldrin			
	Dashamoolara- sayanam,	Bromopropylate			
	Chyavanaprasam, Marichadilehyam,	Alfa BHC			
	Narasimhara- sayanam,	Beta BHC			
	Sathavarigulam, Sukumaralehyam,	Gamma BHC			
	Vilwadilehyam etc.	Delta BHC			
		Alfa Endosulfan			
		Beta Endosulfan			
		Endosulfan sulfate			
		2,4-DDT			
		4,4'-DDT			
		Heptachlor			
		Heptachlorepoxide			

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Accr	editation Standard	ISO/IEC 17025: 2005	ISO/IEC 17025: 2005				
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S. No	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		of Testing / of Detection		
	Avaleha/Lehyam	Organophosphorus Pesticido	es				
	(Confectionary/ semi solid) Agastyarasayanam, Aswagandhadilehya m,Brahma rasayanam,	Chlorfenvinphos	CKL/ANL/AY-020	50.0 μg	/l to 500 µg/l		
		Methidathion	Issue No. 1 Issue Date - 01.05.2014				
		Phosalone					
	Dashamoolara- sayanam,	Fenitrothion					
	Chyavanaprasam, Marichadilehyam,	Diazinon					
	Narasimhara- sayanam,	Pyrethroids					
	Sathavarigulam,	Cis-permethrin	CKL/ANL/AY-020 Issue No. 1	50.0 μg	/l to 500 µg/l		
	Sukumaralehyam, Vilwadilehyam etc.	Trans-permethrin	Issue No. 1 Issue Date - 01.05.2014				
		Alfa-cypermethrin					
		Fenpropathrin					
		Fenvalerate					
		Piperonylbutoxide					
c.	Lepa/ Medicated	Total acidity	IS 5481: 1976	0.01 %	to 10 %		
	wax/ Cream Avalgujadilepa,	Loss on Drying at 105 °C	IS 5481: 1976	0.1 % to	5.0 %		
	Dashangalepa, Kumkumadilepa, Indraluptalepa, Rasottamadilepa,	Rancidity Test	IS 5481: 1976	Qualitat (Present	tive t/Absent)		
	Sukantilepam, Vatarilepam etc.	Total Fat	IS 5481: 1976	0.5 % to	95 %		

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	Lepa/ Medicated wax/ Cream	Lead	CKL/ANL/AY-008 Issue No. 1	0.05 mg/kg to 100 mg/kg
	Avalgujadilepa, Dashangalepa,	Arsenic	Issue Date - 01.05.2014	0.05  mg/kg to  100  mg/kg
	Kumkumadilepa, Indraluptalepa,	Mercury		0.05  mg/kg to $100  mg/kg$
	Rasottamadilepa, Sukantilepam, Vatarilepam etc.	Cadmium		0.05 mg/kg to 100 mg/kg
d.	Choornam (Coarse/fine powder) Avipattikara-	Loss on Drying at 105 °C	API (Part 1, Vol.1, 1st Edition): Page 162	0.1 % to 30.0 %
	choornam, Ashtachoornam,	Total Ash	IP 2014, Vol.1, Page 98	0.05 % to 20.0 %
	Dadimastaka- choornam,	Acid insoluble ash	IP 2014, Vol.1, Page 98	0.05 % to 5.0 %
	Guggulupanchapalac hoornam,	Alcohol soluble extractive	IP 2014, Vol. 1, Page 277	0.1 % to 75.0 %
	Hinguvastaka- choornam,	Water soluble extractive	IP 2014, Vol. 1, Page 277	0.1 % to 75.0%
	Panchakola- choornam,	Bulk Density	USP 2011, Vol.1, Page 242	0.3 g/ml to 2 g/ml
	Sitopaladichoornam, Triphalachoornam,	Tap Density	USP 2011, Vol.1, Page 242	0.3 g/ml to 2 g/ml
	Varanadikashayacho ornam etc.	pH (10% aqueous extract)	API (Part 1) Vol.1, (1st Edition) Page 156	3 to 8
		Lead	CKL/ANL/AY-008 Issue No. 1	0.05 mg/kg to 100 mg/kg
		Arsenic	Issue Date - 01.05.2014	0.05  mg/kg to $100  mg/kg$
		Mercury		0.05  mg/kg to  100  mg/kg
		Cadmium		0.05  mg/kg to $100  mg/kg$

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Choornam	Organochlorine Pesticides			
(Coarse/fine powder) Avipattikara-	Alachlor	CKL/ANL/AY-020 Issue No. 1	50.0 μg/	'l to 500 μg/l
choornam, Ashtachoornam,	Aldrin	Issue Date - 01.05.2014		
Dadimastaka- choornam,	Dieldrin			
Guggulupanchapalac hoornam,	Bromopropylate			
Hinguvastaka- choornam,	Alfa BHC			
Panchakola- choornam,	Beta BHC			
Sitopaladichoornam, Triphalachoornam,	Gamma BHC			
Varanadikashayacho ornam etc.	Delta BHC			
	Alfa Endosulfan			
	Beta Endosulfan			
	Endosulfan sulfate			
	2,4-DDT			
	4,4'-DDT			
	Heptachlor			
	Heptachlorepoxide			

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S. No	. Product / Material of Test	Specific Test Performed	Test Method Specificatio against which tests are performed		of Testing / of Detection	
Choornam		Organophosphorus Pesticido	es			
	(Coarse/fine powder) Avipattikara- choornam, Ashtachoornam, Dadimastaka- choornam, Guggulupanchapalac hoornam, Hinguvastaka- choornam,	Chlorfenvinphos	CKL/ANL/AY-020	50.0 μg	/l to 500 µg/l	
		Methidathion	Issue No. 1 Issue Date - 01.05.2014			
		Phosalone				
		Fenitrothion				
		Diazinon				
	Panchakola- choornam,	Pyrethroids				
	Sitopaladichoornam,	Cis-permethrin	CKL/ANL/AY-020 Issue No. 1 Issue Date - 01.05.2014	50.0 μg	/l to 500 µg/l	
	Triphalachoornam, Varanadikashayacho ornam etc.	Trans-permethrin				
		Alfa-cypermethrin				
		Fenpropathrin				
		Fenvalerate				
		Piperonylbutoxide				
e.	Plant extract Dried/wet	Loss on Drying at 105 °C	API (Part 1) Vol.1, (1st Edition Page 162	on) 0.1 % to	90.0 %	
		Total Ash	IP 2014, Vol.1, Page 98	0.05 %	to 20.0 %	
		Acid insoluble ash	IP 2014, Vol.1, Page 98	0.05 %	to 5.0 %	
		Alcohol soluble extractive	IP 2014, Vol. 1, Page 277	0.1 % to	75.0 %	

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Plant extract	Water soluble extractive	IP 2014, Vol. 1, Page 277	0.1 % to 75.0 %
Dried/wet	Bulk Density	USP 2011, Vol.1, Page 242	0.5 g/ml to 2 g/ml
	Tap Density	USP 2014, Vol.1, Page 242	0.3 g/ml to 2 g/ml
	pH (10% aqueous extract)	API (Part 1) Vol.1, (1st Edition) Page 156	1 to 14
	Organochlorine Pesticides		
	Alachlor	CKL/ANL/AY-020	$50.0~\mu g/l$ to $500~\mu g/l$
	Aldrin	Issue No. 1 Issue Date - 01.05.2014	
	Dieldrin		
	Bromopropylate		
	Alfa BHC		
	Beta BHC		
	Gamma BHC		
	Delta BHC		
	Alfa Endosulfan		
	Beta Endosulfan		
	Endosulfan sulfate		
	2,4-DDT		

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S. No. Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		of Testing / of Detection		
Plant extract Dried/wet	4,4'-DDT	CKL/ANL/AY-020 Issue No. 1	50.0 μg/	/l to 500 μg/l		
Diled/wet	Heptachlor	Issue Date - 01.05.2014				
Heptachlorepoxide						
	Organophosphorus Pesticide	anophosphorus Pesticides				
	Chlorfenvinphos	CKL/ANL/AY-020 Issue No. 1 Issue Date - 01.05.2014	$50.0~\mu g/l$ to $500~\mu g/l$			
	Methidathion					
	Phosalone					
	Fenitrothion					
	Diazinon					
	Pyrethroids					
	Cis-permethrin	CKL/ANL/AY-020 Issue No. 1	50.0 μg/	'l to 500 µg/l		
	Trans-permethrin	Issue Date - 01.05.2014				
	Alfa-cypermethrin					
	Fenpropathrin					
	Fenvalerate					
	Piperonylbutoxide					

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f.	Bhasma (Processed fine powder)	Loss on Drying at 105 °C	API (Part 1) Vol.1, (1st Edition) Page 162	0.1 % to 90.0 %
	Abrakabhasma, Naga bhasma, Vangabhasma,	Total Ash	IP 2014, Vol.1, Page 98	0.05 % to 99.0 %
	Shankabhasma, Tamrabhasma,	Acid insoluble ash	IP 2014, Vol.1, Page 98	0.05 % to 80.0 %
Man	Mandoorabhasma, Lohabhasma etc	Alcohol soluble extractive	IP 2014, Vol. 1, Page 277	0.1 % to 5.0 %
	Lonabnasma etc	Water soluble extractive	IP 2014, Vol. 1, Page 277	0.1 % to 75.0 %
		pH (10 % aqueous extract)	API (Part 1) Vol.1 (1st Edition) Page 156	3 to 8
g.	Sharkarasiktha/ Siruthugalgal (Granules) Haridrakhandam, Thaleesapatradi-	Total Ash	IP 2014, Vol.1, Page 98	0.05 % to 30.0 %
		Acid insoluble ash	IP 2014, Vol.1, Page 98	0.05 % to 5.0 %
		Alcohol soluble extractive	IP 2014, Vol. 1, Page 277	0.1 % to 75.0 %
	vatakam, Ayur Manna,	Water soluble extractive	IP 2014, Vol. 1, Page 277	0.1 % to 75.0 %
	C-Health granules, Sitopaladivatakam	Total Sugar	API, Part 1, Vol.VI,1st Edition) Page 337	0.5 % to 95 %
		Reducing Sugar	API (Part 1) Vol.VI,(1st Edition) Page 340	0.5 % to 15 %
		pH (10 % aqueous extract)	API (Part 1) Vol.1, (1st Edition) Page 156	4 to 9

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S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
h.	Sharbat/ Manappagu (Syrup) Krishna thulasi cough syrup,	pH (10 % aqueous extract)	API (Part 1) Vol.1, (1st Edition) Page 156	3 to 10
	Menorex syrup,	Total solids	IP 2014, Vol. 1, Page 277	0.05 % to 90.0 %
	Lungs clear syrup, Soolari syrup etc.	Total Sugar	API (Part 1) Vol.VI (1st Edition) Page 337	0.5 % to 70 %
		Reducing Sugar	API (Part 1) Vol.VI (1st Edition) Page 340	0.5 % to 60 %
		Specific gravity	API (Part 1) Vol.1 (1st Edition) Page 161	0.5 to 2.0
		Lead	CKL/ANL/AY-008 Issue No. 1	0.05 mg/kg to 100 mg/kg
		Arsenic	Issue No. 1 Issue Date - 01.05.2014	0.05 mg/kg to 100 mg/kg
		Mercury		0.05 mg/kg to 100 mg/kg
		Cadmium		0.05 mg/kg to 100 mg/kg
i.	Raw plant material Bark/stem/seed/root/ Leaves/Flowers	Loss on Drying at 105 °C	API Part 1, Vol.1, 1st Edition): Page 162	0.1 % to 60.0 %
	Leaves/Flowers	Total Ash	IP 2014, Vol.1, Page 98	0.05 % to 30.0 %
		Acid insoluble ash	IP 2014, Vol.1, Page 98	0.05 % to 5.0 %
		Alcohol soluble extractive	IP 2014, Vol. 1, Page 277	0.1 % to 75.0 %
		Water soluble extractive	IP 2014, Vol. 1, Page 277	0.1 % to 75.0 %
		pH (10 % aqueous extract)	API (Part 1), Vol.1, (1st Edition) Page 156	3 to 10

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Raw plant material Bark/stem/seed/root/	Lead	CKL/ANL/AY-008 Issue No. 1	0.05 mg	/kg to 100 mg/kg	
Leaves/Flowers	Arsenic	Issue Date - 01.05.2014	0.05 mg	/kg to 100 mg/kg	
	Mercury		0.05 mg	/kg to 100 mg/kg	
	Cadmium		0.05 mg	/kg to 100 mg/kg	
	Organochlorine Pesticides				
	Alachlor	CKL/ANL/AY-020 Issue No. 1	50.0 μg	/l to 500 µg/l	
	Aldrin	Issue Date - 01.05.2014			
	Dieldrin				
	Bromopropylate				
	Alfa BHC				
	Beta BHC				
	Gamma BHC				
	Delta BHC				
	Alfa Endosulfan				
	Beta Endosulfan				
	Endosulfan sulfate				
	2,4-DDT				
	4,4'-DDT				
	Heptachlor				
	Heptachlor epoxide				

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Raw plant material	Organophosphorus Pesticido	es		
Bark/stem/seed/root/ Leaves/Flowers	Chlorfenvinphos	CKL/ANL/AY-020	50.0 μg/	/l to 500 μg/l
Deares/110 wers	Methidathion	Issue No. 1 Issue Date - 01.05.2014		
	Phosalone			
	Fenitrothion			
	Diazinon			
	Pyrethroids			
	Cis-permethrin	CKL/ANL/AY-020 Issue No. 1	50.0 μg/	/l to 500 μg/l
	Trans-permethrin	Issue Date - 01.05.2014		
	Alfa-cypermethrin			
	Fenpropathrin			
	Fenvalerate			
	Piperonylbutoxide			

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j.	Tailas/ Ghritas/ (Medicate oil and	Iodine value	IS 548 (Part 1):1964	4.0 to 200.0
	Ghee) Anutailam, Balatailam,	Saponification value	IS 548 (Part 1): 1964	50.0 to 300.0
	Brahmighrtam, Dhanvantharamkuzh ampu,	Rancidity	CCRAS 15.0	Qualitative (Present/Absent)
	Eladikeram, Dadimadighrtam,	Refractive Index	IS 548 (Part 1): 1964	1.200 to 1.500
	Karpooraditailam, Neelibhrngadi-	Free Fatty Acid	IS 548 (Part 1): 1964	0.1 to 5.0
	keratailam, Sahacharadikuz- hambu,	Mineral Oil	IS 548 (Part 1): 1964	Qualitative (Present/Absent)
	Vidaryadighrtam etc.	Peroxide value	IS 548 (Part 1): 1964	(0.1 to 20) millieq/gram
	····	Acid value	IS 548 (Part 1): 1964	0.1 to 15.0
		Specific gravity at 25 °C	API (Part 1) Vol.1, (1st Edition) Page 161	0.5 to 2.0
		Lead	CKL/ANL/AY-008 Issue No. 1	0.05  mg/kg to $100  mg/kg$
		Arsenic	Issue Date - 01.05.2014	0.05 mg/kg to 100 mg/kg
		Mercury		0.05 mg/kg to 100 mg/kg
		Cadmium		0.05 mg/kg to 100 mg/kg

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k.	Vati/ Gutika (Tablet/ Pills)	Total Ash	IP 2014, Vol.1, Page 98	0.05 % to 50.0 %
	Chandraprabha- gulika, Dhanyantaram-	Loss on Drying at 105 °C	API (Part 1) Vol.1 (1st Edition): Page 162	0.1 % to 40.0 %
	gulika, Hinguvachadigulika,	Acid insoluble ash	IP 2014, Vol.1, Page 98	0.05 % to 5.0 %
	Marmanigulika, Kaisoraguggulu, Sanjeevanivati,	Total Sugar	API (Part 1) Vol.VI (1st Edition): Page 337	0.5 % to 60 %
	Sukhabhedigulika, Virechanagulika, Vilwadigulika,	Reducing Sugar	API (Part 1) Vol.VI (1st Edition): Page 340	0.5 % to 45 %
	Yogarajaguggulu etc.	Alcohol soluble extractive	IP 2014, Vol. 1, Page 277	0.1 % to 50.0 %
		Water soluble extractive	IP 2014, Vol. 1, Page 277	0.1 % to 75.0 %
		pH (10% aqueous extract)	API (Part 1) Vol.1 (1st Edition): Page 156	3.0 to 9.0
		Lead	CKL/ANL/AY-008 Issue No. 1	0.05 mg/kg to 100 mg/kg
		Arsenic	Issue Date - 01.05.2014	0.05 mg/kg to 100 mg/kg
		Mercury		0.05 mg/kg to 100 mg/kg
		Cadmium		0.05 mg/kg to 100 mg/kg
		Organochlorine Pesticides Alachlor	CKL/ANL/AY-020	50.0 μg/l to 500 μg/l
		Aldrin	Issue No. 1 Issue Date - 01.05.2014	30.0 μg/1 to 300 μg/1
		Dieldrin		

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S. No. Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		of Testing / of Detection
Vati/ Gutika (Tablet/ Pills)	Bromopropylate	CKL/ANL/AY-020 Issue No. 1	50.0 μg	/l to 500 µg/l
(Tablet/Tins) Chandraprabha- gulika,	Alfa BHC	Issue Date - 01.05.2014		
Dhanvantaram- gulika,	Beta BHC			
Hinguvachadigulika, Marmanigulika,	Gamma BHC			
Kaisoraguggulu,	Delta BHC			
Sanjeevanivati, Sukhabhedigulika, Virechanagulika,	Alfa Endosulfan			
Vilwadigulika, Yogarajaguggulu etc.	Beta Endosulfan			
0 00	Endosulfan sulfate			
	2,4-DDT			
	4,4'-DDT			
	Heptachlor			
	Heptachlorepoxide			
	Organophosphorus Pesticide Chlorfenvinphos	es CKL/ANL/AY-020	50.0 ug	/l to 500 µg/l
	Methidathion	Issue No. 1 Issue Date - 01.05.2014		, - 13
	Phosalone			
	Fenitrothion			
	Diazinon			

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S. No	. Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		of Testing / of Detection
	Vati/ Gutika	Pyrethroids			
	(Tablet/ Pills) Chandraprabha-	Cis-permethrin	CKL/ANL/AY-020 Issue No. 1	50.0 μg	/l to 500 μg/l
	gulika, Dhanvantaram-	Trans-permethrin	Issue Date - 01.05.2014		
	gulika, Hinguvachadigulika,	Alfa-cypermethrin			
Marmanigulika, Kaisoraguggulu,	Fenpropathrin				
	Sanjeevanivati, Sukhabhedigulika,	Fenvalerate			
	Virechanagulika, Vilwadigulika, Yogarajaguggulu etc.	Piperonylbutoxide			
II.	FOOD & AGRICULT	URAL PRODUCTS			
1.	Spices and Condiments	Moisture	ASTA (4 <sup>th</sup> Edition) 2.0: 1997 Page 3	0.2 % to	20 %
		Total ash	ASTA (4 <sup>th</sup> Edition) 3.0: 1997 Page 11-12	0.05 %	to 20.0 %
		Acid insoluble ash	ASTA (4 <sup>th</sup> Edition) 4.0: 1997 Page 15-16	0.05 %	to 5.0 %
		Extraneous matter	IS 1797: 1985, Page 4	0.1 % t	o 50 %
		Starch	ASTA (4 <sup>th</sup> Edition) 8.0: 1997 Page 40-41	, 0.1 % to	0 65 %
		Crude fibre	IS 1797: 1985, Page 13	0.1 % to	20 %

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S. No. Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
Spices and Condiments	Calcium Sodium Potassium	AOAC (19 <sup>th</sup> Edition) 990.23: 2012	(1.0 mg to 1000 mg)/100 g (1.0 mg to 1500 mg)/100 g (1.0 mg to 1500 mg)/100 g
	Non-volatile ether extract	IS 1797: 1985, Page 14	0.1 % to 10 %
	Volatile oil	IS 1797: 1985, Page 15	0.1 % to 15 %
	Cold water soluble extract	IS 1797: 1985, Page 11	0.1 % to 20 %
	Alcohol soluble extract	IS 1797: 1985, Page 10-11	0.1 % to 23 %
	Light berries	IS 1798: 1982, Page 1-3	0.03 % to 10 %
	Bulk density	IS 1797: 1985, Page 4	100 g/l to 750 g/l
	Piperine content	ASTA (4 <sup>th</sup> Edition) 12.1: 1997, Page 52-53	0.1 % to 10 %
	Lead chromate Test	IS 3576: 1994, Page 7	Qualitative
	Sodium chloride	IS 1797: 1985, Page 16	0.5 % to 15 %
	Curcumin	CKL/ANL/FP-017	10000 ppm to 980000 ppm
	Organochlorine Pesticides		
	Alachlor	CKL/ANL/FP-018 Issue No. 1	10.0 μg/l to 500 μg/l
	Aldrin	Issue Date - 01.05.2014	
	Dieldrin		
	Bromopropylate		

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S. No. Product / Material of Test	Specific Test Performed	Test Method Specificatio against which tests are performed		of Testing / of Detection
Spices and Condiments	Alfa BHC	CKL/ANL/FP-018 Issue No. 1	10.0 µg/	1 to 500 μg/l
Condiments	Beta BHC	Issue Date - 01.05.2014		
	Gamma BHC			
	Delta BHC			
	Alfa Endosulfan			
	Beta Endosulfan			
	Endosulfan sulfate			
	2,4-DDT			
	4,4'-DDT			
	Heptachlor			
	Heptachlor epoxide			
	Lead	CKL/ANL/FP-019 Issue No. 1	10.0 µg/	l to 500 μg/l
	Arsenic	Issue Date - 01.05.2014	10.0 μg/	1 to 500 μg/l
	Mercury		10.0 μg/	l to 500 μg/l
	Cadmium		10.0 μg/	l to 500 μg/l

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S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Bakery and	Moisture	IS 12711: 1989, Page 1	0.1 % to 25 %
	confectionary product	Ash	IS 12711: 1989, Page 1-2	0.1 % to 20 %
		Acid insoluble ash	IS 12711: 1989, Page 2	0.01 % to 5 %
		Protein	IS 7219: 1973	0.5 % to 40 %
		Fat	IS 12711: 1989, Page 3	0.1 % to 50 %
	Carbohydrate	CKL/ANL/FP-025 Issue No. 1 Issue Date - 01.05.2014	5 % to 80 %	
		Energy Value	CKL/ANL/FP-026 Issue No. 1 Issue Date - 01.05.2014	(10 Kcal to 1000 Kcal)/ 100 g
		Sodium	AOAC (19th Edition) 990.23:	10 mg/kg to 100 mg/kg
		Potassium	2012, chapter 33, Page 74	10 mg/kg to 100 mg/kg
		Calcium		10 mg/kg to 100 mg/kg
		Crude Fiber	IS 12711: 1989 Page 4-5	0.1 % to 30 %
		Peroxide Value	IS 12711: 1989 Page 14	0.1 milli/kg to 20 milli/kg
		Acidity of extracted fat	IS 12711: 1989 Page 3-4	0.01 % to 20 %
		Alcoholic Acidity	IS 12711: 1989 Page 5	0.01 % to 1 %

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S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
3.	Cereals, Pulses and by products	Moisture	IS 1155: 1968 (RA 2005) Page 7-8	0.1 % to 20 %
		Total ash	IS 1155: 1968 (RA 2005) Page 8	0.1 % to 20 %
		Acid insoluble ash	IS 1155: 1968 (RA 2005) Page 8-9	0.01 %t to 10 %
		Gluten	IS 1155: 1968 (RA 2005) Page 9-10	1 % to 16 %
		Alcoholic acidity as H <sub>2</sub> SO <sub>4</sub>	IS 1155: 1968 (RA 2005) Page 11-12	0.01 % to 0.5 %
		Total Fat	AOAC (19 <sup>th</sup> Edition) 2003.05: 2012 Vol. II, Chapter 4 Page 41-43	0.1 % to 10 %
		Total Protein	IS 7219: 1973	1 % to 30 %
		Carbohydrate	CKL/ANL/FP-041 Issue No. 1 Issue Date - 01.05.2014	5 % to 80 %
		Energy value	CKL/ANL/FP-42 Issue No. 1,Issue Date - 01.05.2014	(10 Kcal to 500Kcal)/ 100 g
		Starch	IS 4706 (Part 2): 1978 (RA 2005) Page 10-17	1 % to 80 %
		Acidity of extracted fat expressed as oleic acid	DGHS Manual 3-14.5, Page 38-39	0.01 % to 10 %

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S. No.	. Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Cereals, Pulses and byproducts	Crude fibre	IS 1155: 1968 (RA 2005), Page 10-11	0.1 % to 20 %
		Calcium	AOAC (19 <sup>th</sup> Edition) 990.23: 2012 Chapter 33, Page 74	10 mg/kg to 100 mg/kg
		Sodium	2012 Chapter 33, 1 age 74	10 mg/kg to 100 mg/kg
		Potassium		10 mg/kg to 100 mg/kg
4.	Oils and fats	Iodine value	IS 548 (Part 1): 1964 (RA 2006) Page 47-48	5 to 300
		Boudouins test	IS 548 (Part 2): 1976 (RA 2006) Page 5-6	Qualitative
		Peroxide value	IS 548 (Part 1): 1964 (RA 2006) Page 63-64	0.1 milli/kg to 30 milli/kg
		Saponification value	IS 548 (Part 1): 1964 (RA 2006) Page 51-52	50 to 300
		Refractive index at 40 °C	IS 548 (Part 1): 1964 (RA 2006) Page 35-38	1.3 to 1.7
		Polenske value	IS 548 (Part 1): 1964 (RA 2006) Page 62-65	5 to 20
		Acid value	IS 548 (Part 1): 1964 (RA 2006) Page 29-30	0.1 to 50
		Bellier Test	IS 548 (Part 2): 1976 (RA 2006) Page 13-14	15 ° to 50 °
		Flash Point	IP 2014, Vol. 1, Page 246-247	100 °C to 350 °C

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. No. Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
Oils and fats	Cloud point	DGHS Manual2-17.0, Page 46-47	15 °C to 30 °C
	Moisture and volatile matter	IS 548 (Part 1): 1964 (RA 2006) Page 19-20	0.01 % to 4.0 %
	Free fatty acids as oleic acid	IS 548 (Part 1): 1964 (RA 2006) Page 29-30	0.01 % to 10 %
	Test for mineral oil	IS 548 (Part 2): 1976 (RA 2006) Page 11-12	Qualitative
	Test for presence of rancidity	DGHS Manual2-37.0, Page 97	Qualitative
	Insoluble impurities	IS 548 (Part 1): 1964 (RA 2006) Page 28-29	0.1 % to 10 %
	Cholesterol	CKL/ANL/FP/032 Issue No. 1 Issue Date - 01.05.2014	0.1 % to 10 %
	Reichert value	IS 548 (Part 1): 1964 (RA 2006) Page 57-59	1.0 to 25
	Specific gravity	IS 548 (Part 1): 1964 (RA 2006) Page 39-40	0.8 to 1
. Honey & honey	Loss on Drying	IS 4941: 1994 Page 3-4	0.1 % to 20.0 %
product	Total ash	IS 4941: 1994 Page 6	0.05 % to 10.0 %
	Total Sugar	IS 4941: 1994 Page 6	0.5

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S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Honey & honey product	Reducing Sugar	IS 4941: 1994 Page 5	NA
	product	Adulteration	IS 4941: 1994 Page 7	Qualitative
		Acidity of honey (as formic acid)	IS 4941: 1994 Page 7	0.01 to 1.0
		Specific Gravity at 25 °C	IS 4941: 1994 Page 2	0.5 to 2.0
6.	Tea and tea products	Moisture	IS 13853:1994	0.3 % to 12 %
		Total ash	IS 13854: 1994	0.1 % to 20 %
		Acid insoluble ash	IS 13857: 1993	0.1 % to 20 %
		Water soluble ash	IS 13855: 1993	1 % to 80 %
		Alkalinity of water soluble ash	IS 13856: 1993	0.1 % to 20 %
		Crude fibre	IS 10226 (Part 1): 1982, Page 5	0.1 % to 50 %
		Water soluble extract	IS 13862: 1999	0.1 % to 50 %
		Caffeine	CKL/ANL/FP-079 Issue No. 1 Issue Date - 01.05.2014	0.1 % to 10 %
		Iron particles	IS 3633: 2003, Page 3	10 mg/kg to 300 mg/kg

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S. No.	Product / Material of Test	Specific Test Performed	Test Method Specificatio against which tests are performed		of Testing / of Detection	
	Tea and tea products	Organochlorine Pesticides Alachlor	CKL/ANL/FP-081 Issue No. 1	10.0 μg/	/l to 500 μg/l	
		Aldrin	Issue Date - 01.05.2014			
		Dieldrin				
		Bromopropylate				
		Alfa BHC				
		Beta BHC				
		Gamma BHC				
		Delta BHC				
		Alfa Endosulfan				
		Beta Endosulfan				
		Endosulfan sulfate				
		2,4-DDT				
		4,4'-DDT				
		Heptachlor				
		Heptachlor Epoxide				
7.	Coffee, cocoa and by	Moisture	IS 3077: 1992, Page 7	0.3 % to	12 %	
	products	Total ash	IS 3077: 1992, Page 7	0.1 % to	20 %	

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S. No	. Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Coffee, cocoa and by products	Acid insoluble ash	IS 3077: 1992, Page 7-8	0.1 % to 10 %
		Water soluble ash	IS 3077: 1992, Page 8	1 % to 80 %
		Alkalinity of water soluble ash	IS 3077: 1992, Page 8	0.1 % to 20 %
		Caffeine	CKL/ANL/FP-087 Issue No. 1 Issue Date - 01.05.2014	0.1 % to 10 %
		Petroleum ether extract	IS 3077: 1992, Page 10	0.1 % to 20 %
8.	Nuts and Nut products	Moisture	AOAC (19 <sup>th</sup> Edition) 925.40 Chapter 40, Page 1	0.1 % to 20 %
		Protein	IS 7219: 1973	5 % to 50 %
		Fat	AOAC (19 <sup>th</sup> Edition) 948.22 Chapter 40, Page 1	1 % to 60 %
		Carbohydrate	CKL/ANL/FP-92 Issue No. 1 Issue Date - 01.05.2014	5 % to 80 %
		Energy value	CKL/ANL/FP-93 Issue No. 1 Issue Date - 01.05.2014	(10 Kcal to 1000 Kcal)/ 100 g
		Total ash	AOAC (19 <sup>th</sup> Edition) 950.49 Chapter 40, Page 2	0.01 % to 10 %
		Peroxide value	IS 12711: 1989, Page 14	(0.01 m to 20 m)/kg

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	Nuts and Nut products	Acid insoluble ash	IS 1155: 1968 (RA 2005), Page 8-9	0.01 % to 5 %
		Crude fibre	AOAC (19 <sup>th</sup> Edition) 935.53 Chapter 40, Page 2	0.1 % to 20 %
		Salt	AOAC (19 <sup>th</sup> Edition) 950.52 Chapter 40, Page 2	0.5 % to 10 %
9.	Fruits, Vegetables & related Products	Moisture	CKL/ANL/FP-099	0.05 % to 95 %
		Total Sugar	DGHS Manual 5-10, Page 38-39	2 % to 40.0 %
		Acid insoluble ash	DGHS Manual 5- 5.3, Page 35	0.01 % to 5 %
		Starch	IS 4706 (Part 2): 1978 (RA 2005) Page 10-17	0.1 % to 80 %
		Extraneous matter	DGHS Manual 3- 1.2, Page 5-6	0.1 % to 10 %
		Reducing sugar	DGHS Manual 5- 10, Page 38-39	2 % to 30 %
		Fill of the container	DGHS Manual 5- 1.3, Page 2-3	80 % to 100 %
		Total ash	IS 1155: 1968 (RA 2005) Page 8	0.1 % to 30 %
		Total Soluble solids	DGHS Manual 5- 1.6, Page 5-6	1 % to 80 %
		Acidity as citric acid, acetic acid	IS 2860: 1964, Page 10-11	1 % to 20 %
		pH	DGHS Manual 5-2.3, Page 12	2 to 6
		Sodium chloride content	DGHS Manual 5-1.7, Page 10	0.5 % to 50 %

Laboratory CARe Keralam, KINFRA, Small Industries Park, Nalukettu Road, Koratty, Thrissur, Kerala **Accreditation Standard** ISO/IEC 17025: 2005 **Discipline Chemical Testing Issue Date** 31.07.2015 **Certificate Number Valid Until** T-3532 30.07.2017 Last Amended on **Page** 28 of 33 S. No. Product / **Specific Test Performed Test Method Specification** Range of Testing / **Limits of Detection Material of Test** against which tests are performed Fruits, Vegetables & Total solids DGHS Manual 5- 14.3, Page 42 1 % to 98 % related Products Peroxidase test DGHS Manual 5- 17.5, Page 51 Qualitative (Presence/Absence) **Organochlorine Pesticides** Alachlor CKL/ANL/FP-114  $10.0 \ \mu g/l$  to  $500 \ \mu g/l$ Issue No. 1 Aldrin Issue Date - 01.05.2014  $10.0 \mu g/l$  to  $500 \mu g/l$  $10.0 \mu g/l$  to  $500 \mu g/l$ Dieldrin  $10.0 \mu g/l$  to  $500 \mu g/l$ Bromopropylate Alfa BHC  $10.0 \mu g/l$  to  $500 \mu g/l$ Beta BHC  $10.0 \mu g/l$  to  $500 \mu g/l$ Gamma BHC  $10.0 \mu g/l$  to  $500 \mu g/l$ Delta BHC  $10.0 \mu g/l$  to  $500 \mu g/l$ Alfa Endosulfan  $10.0 \mu g/l$  to  $500 \mu g/l$ Beta Endosulfan  $10.0 \mu g/l$  to  $500 \mu g/l$ Endosulfan sulfate  $10.0 \ \mu g/l$  to  $500 \ \mu g/l$ 2,4-DDT  $10.0 \mu g/l$  to  $500 \mu g/l$ 4,4'-DDT  $10.0 \mu g/l$  to  $500 \mu g/l$ Heptachlor  $10.0 \mu g/l$  to  $500 \mu g/l$  $10.0 \mu g/l$  to  $500 \mu g/l$ Heptachlor Epoxide

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S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed		of Testing / of Detection	
	Fruits, Vegetables &	Organophosphorus Pesticides				
	related Products	Chlorfenvinphos	CKL/ANL/FP-114	10.0 μ	g/l to 500 µg/l	
		Methidathion	Issue No. 1 Issue Date - 01.05.2014	10.0 μ	g/l to 500 µg/l	
		Phosalone		10.0 μ	g/l to 500 µg/l	
		Fenitrothion		10.0 μ	g/l to 500 µg/l	
		Diazinon		10.0 μ	g/l to 500 μg/l	
		Pyrethroids				
		Cis-permethrin	CKL/ANL/FP-114 Issue No. 1	10.0 μ	g/l to 500 μg/l	
		Trans-permethrin	Issue Date - 01.05.2014	10.0 μ	g/l to 500 µg/l	
		Alfa-cypermethrin		10.0 μ	g/l to 500 μg/l	
		Fenpropathrin		10.0 μ	g/l to 500 µg/l	
		Fenvalerate		10.0 μ	g/l to 500 µg/l	
		Piperonylbutoxide		10.0 μ	g/l to 500 µg/l	
III.	WATER					
1.	Potable and	Odour	IS 3025 (Part 5): 1983	Qualita	ative	
	Domestic	Taste	APHA (22 <sup>nd</sup> Edition) 2160 C: Page 2.22	2012 Qualita	ntive	
		Turbidity	APHA (22 <sup>nd</sup> Edition) 2130 B: Page 2.13-14	2012 2 NTU	to 1000 NTU	

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	Potable and Domestic	Nitrate as NO <sub>3</sub> -	APHA (22 <sup>nd</sup> Edition) 4500 NO <sub>3</sub> -B: 2012, Page 4. 122 -123	0.5 mg/l to 100 mg/l
		Fluoride as F	APHA (22 <sup>nd</sup> Edition) 4500 F <sup>-</sup> D: 2012, Page 4. 87 -88	0.5 mg/l to 5 mg/l
		Sulphate as SO <sub>4</sub> <sup>2</sup> -	APHA (22 <sup>nd</sup> Edition) 4500 SO <sub>4</sub> <sup>2-</sup> E: 2012, Page 4. 190 – 191	4 mg/l to 100 mg/l
		Chloride as Cl	APHA (22 <sup>nd</sup> Edition) 4500 Cl <sup>-</sup> B: 2012, Page 4.72 – 73	1 mg/l to 1000 mg/l
		Phosphate-as P	APHA 2012(22 <sup>nd</sup> Edition): Method No. 4500 P.D , Page 4. 154 -155	0.4 mg/l to 10 mg/l
		Selenium as Se	CKL/ANL/WA-021 Issue No. 1	1 $\mu$ g/l to 1000 $\mu$ g/l
		Aluminium as Al	Issue Date - 01.05.2014	1 $\mu$ g/l to 1000 $\mu$ g/l
		Calcium as Ca		1 mg/l to 1000 mg/l
		Borate as Boron		1 μg/l to 1000 μg/l
		Lithium as Li		1 μg/l to 1000 μg/l
		Gallium as Ga		1 μg/l to 1000 μg/l
		Cobalt as Co		1 μg/l to 1000 μg/l
		Strontium as Sr		1 μg/l to 1000 μg/l
		Bismuth as Bi		$1 \mu g/l$ to $1000 \mu g/l$

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Potable and	Barium as Ba	CKL/ANL/WA-021	1 μg/l to 1000 μg/l
Domestic	Copper as Cu	Issue No. 1 Issue Date - 01.05.2014	1 μg/l to 1000 μg/l
	Iron as Fe		1 μg/l to 100 μg/l
	Chromium as Cr		1 $\mu$ g/l to 1000 $\mu$ g/l
	Nickel as Ni		1 $\mu$ g/l to 1000 $\mu$ g/l
	Manganese as Mn		$1 \mu g/l$ to $1000 \mu g/l$
	Cadmium as Cd		1 μg/l to 1000 μg/l
	Lead as Pb		1 μg/l to 1000 μg/l
	Mercury as Hg		1 μg/l to 100 μg/l
	Arsenic as As		1 μg/l to 1000 μg/l
	Sodium as Na	APHA (22 <sup>nd</sup> Edition) 3500- Na B: 2012 Page 3. 97-98	1 μg/l to 1000 μg/l
	Potassium as K	APHA (22 <sup>nd</sup> Edition) 3500- K B: 2012 Page 3. 87 – 88	1 μg/l to 1000 μg/l
	Alachlor	CKL/ANL/WA-023	$0.100~\mu g/l$ to $500~\mu g/l$
	Aldrin	Issue No. 1 Issue Date - 01.05.2014	$0.100~\mu g/l$ to $500~\mu g/l$
	Dieldrin		$0.100~\mu g/l$ to $500~\mu g/l$
	Alfa BHC		0.100 μg/l to 500 μg/l

Koratty, Thrissur, Kerala

Accreditation Standard ISO/IEC 17025: 2005

Discipline Chemical Testing Issue Date 31.07.2015

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S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Potable and Domestic	Beta BHC	CKL/ANL/WA-023 Issue No. 1	$0.100~\mu g/l$ to $500~\mu g/l$
		Gamma BHC	Issue Date - 01.05.2014	$0.100~\mu g/l$ to $500~\mu g/l$
		Delta BHC		$0.100~\mu g/l$ to $500~\mu g/l$
		Alfa Endosulfan		$0.100~\mu\text{g/l}$ to $500~\mu\text{g/l}$
		Beta Endosulfan		$0.100~\mu g/l$ to $500~\mu g/l$
		Endosulfan sulfate		$0.100~\mu g/l$ to $500~\mu g/l$
		2,4-DDT		$0.100~\mu\text{g/l}$ to $500~\mu\text{g/l}$
		4,4'-DDT		$0.100~\mu\text{g/l}$ to $500~\mu\text{g/l}$