

Laboratory Jain Research & Development, Jain Irrigation Systems Limited,
Jain Hills, Shirsoli Road, Jalgaon, Maharashtra

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7178

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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BIOLOGICAL TESTING

I.	FOOD AND AGRICULTURAL PRODUCTS			
1.	Vegetable & Vegetable Products	Total Bacterial count (TPC , TVC ,TBC ,SPC)	USFDA-BAM Chapter 3 : January 2001	≥10 CFU/g / <10 CFU/g
			NMKL No. 86, 5 th Edition	≥10 CFU/g / <10 CFU/g
			AOAC Chapter 17, 20 th Edition : 990.12 (by Petrifilm Method)	≥10 CFU/g / <10 CFU/g
			ISO 4833 (Part 1) / IS5402	≥10 CFU/g / <10 CFU/g
			AOAC Official Method Chapter 17, 20 th Edition 2002.07 (by SimPlate)	≥10 CFU/g / <10 CFU/g
		Coliforms	USFDA-BAM, Chapter 4: July 2017	≥10 CFU/g / <10 CFU/g
			NMKL No.44 : 6 th Edition	≥10 CFU/g / <10 CFU/g
			AOAC Chapter 17, 20 th Edition : 991.14 (by Petrifilm Method)	≥10 CFU/g / <10 CFU/g
			ISO 4832/ IS 5401 (Part 1)	≥10 CFU/g / <10 CFU/g
			USFDA-BAM, Chapter 4: July 2017 (Using Chromogenic Media)	≥10 CFU/g / <10 CFU/g
			AOAC Official Method Chapter 17, 20 th Edition 2005.03 (by SimPlate)	≥10 CFU/g / <10 CFU/g

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Enterobacteriaceae	NMKL No. 144 ;3 rd Edition	≥10 CFU/g / <10 CFU/g
			Compendium APHA ; 5 th Edition -Chapter 9	≥10 CFU/g / <10 CFU/g
			ISO 21528 (Part 2)	≥10 CFU/g / <10 CFU/g
		Escherichia coli	USFDA- BAM July 2017 Chapter 4	Qualitative (Detected/Not Detected per gram)
			NMKL No. 147	Qualitative (Detected/Not Detected per gram)
			AOAC 20 th Edition: 991.14 ; Chapter 17 (by Petrifilm Method)	Qualitative (Detected/Not Detected per gram)
			USFDA- BAM, July 2017 Chapter 4 (Using by Chromogenic Media)	Qualitative (Detected/Not Detected per gram)
			AOAC 20 th Edition; 2005.03- Chapter 17 (by SimPlate Method)	≥10 CFU/g / <10 CFU/g
		Yeasts & Moulds	USFDA- BAM, April 2001; Chapter 18	≥10 CFU/g / <10 CFU/g
			IS 5403	≥10 CFU/g / <10 CFU/g
			NMKL No. 98 ;4 th Edition: 2005	≥10 CFU/g / <10 CFU/g
			AOAC 20 th Edition: 997.02; Chapter 17 (by Petrifilm Method)	≥10 CFU/g / <10 CFU/g
			ISO-21527 (Part 1) / ISO-21527 (Part 2)	≥10 CFU/g / <10 CFU/g
			AOAC 20 th Edition;2002.11- Chapter 17 (by SimPlate Method)	≥10 CFU/g / <10 CFU/g

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Bacillus cereus	USFDA- BAM February 2012 Chapter 14	≥10 CFU/g / <10 CFU/g
			NMKL No. 67; 6 th Edition : 2010	≥10 CFU/g / <10 CFU/g
			ISO 7932/ IS 5887 (Part 6)	≥10 CFU/g / <10 CFU/g
		Faecal streptococci (Enterococci)	Compendium APHA; 5 th Edition-Chapter 10	≥10 CFU/g / <10 CFU/g
		Staphylococcus aureus	USFDA- BAM, March 2016 -Chapter 12	≥10 CFU/g / <10 CFU/g
			NMKL No.66 ;5 th Edition	≥10 CFU/g / <10 CFU/g
			ISO 6888 (Part 1) / IS 5887 (Part 8/Sec I)	≥10 CFU/g / <10 CFU/g
		Sulphite reducing anaerobes	Compendium APHA 5 th Edition- Chapter 28	≥10 CFU/g / <10 CFU/g
			NMKL 56 ;4 th Edition	≥10 CFU/g / <10 CFU/g
		Clostridium perfringens	USFDA BAM, January 2001- Chapter 16	≥10 CFU/g / <10 CFU/g
			ISO 7937	≥10 CFU/g / <10 CFU/g
			NMKL No. 95;5 th Edition	≥10 CFU/g / <10 CFU/g
		Listeria monocytogenes	USFDA- BAM, March 2017 - Chapter 10	Qualitative (Detected/Not Detected per 25 g)
			NMKL No.136; 5 th Edition	Qualitative (Detected/Not Detected per 25 g)
			ISO 11290 (Part 1) / IS 14988 (Part 1)	Qualitative (Detected/Not Detected per 25 g)
		Mesophilic aerobic sporeformers count	Compendium APHA 5 th Edition-Chapter 23	≥10 CFU/g / <10 CFU/g
		Mesophilic anaerobic sporeformers count	Compendium APHA 5 th Edition-Chapter 24	≥10 CFU/g / <10 CFU/g

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Thermophilic Anaerobic spore count(55°C)	Compendium APHA 5 th Edition-Chapter 27	≥10 spore / <10 spore per 10 g / <2 to >1600 MPN/g/ml
		Thermophilic Flat sour Sporeformers	Compendium APHA 5 th Edition-Chapter 26	≥10spore/10 g / <10spore/10 g
		Salmonella	USFDA BAM, March 2018 - Chapter 5	Qualitative (Detected/Not Detected/ 25g/50g/125g/ 250g/375g/750g)
			NMKL No. 71 5 th Edition-1999	Qualitative (Detected/Not Detected/ 25g/50g/125g/ 250g/375g/750g)
			ISO 6579-1	Qualitative (Detected/Not Detected/ 25g/50g/125g/ 250g/375g/750g)
		Lactic Acid Bacteria	Compendium APHA 5 th Edition-Chapter19	≥10 CFU/g / <10 CFU/g
			NMKL No.140; 2 nd Edition	≥10 CFU/g / <10 CFU/g
			ISO 15214	≥10 CFU/g / <10 CFU/g
		Coliform at 44°C	NMKL 125 ;4 th Edition	≥10 CFU/g / <10 CFU/g
		E. coli at 44°C	NMKL 125 ;4 th Edition	≥10 CFU/g / <10 CFU/g
		Sulphite Reducing Clostridium spores	ISO 15213	≥10 CFU/g / <10 CFU/g
		Shigella sp	USFDA -BAM February 2013 -Chapter 6	Qualitative (Detected/Not Detected)/25 g
			ISO 21567	Qualitative (Detected/ Not Detected)/25 g
			IS 5887 (Part 7)	Qualitative (Detected/Not Detected)/25 g
		Vibrio parahaemolyticus / Vibrio cholerae	ISO/TS 21872- Part 1	Qualitative (Detected/Not Detected) /25 g

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Incubation at 37°C for 10days & 55°C for 7 days	IS 2860, RA 2001, 18.1.1 A	Qualitative (No change/Significant change in pH)
2.	Fruit & Fruit Products	Total Bacterial count (TPC , TVC ,TBC ,SPC)	USFDA BAM January 2001- Chapter 3	≥10 CFU/g / <10 CFU/g ≤ 1CFU/ml /
			AOAC 20 th Edition; 2002.07- Chapter 17 (by SimPlate)	≥10 CFU/g / <10 CFU/g
			ISO 4833-Part 1/ IS5402	≥10 CFU/g / <10 CFU/g
		Coliforms	USFDA-BAM, Chapter 4: July 2017	≥10 CFU/g / <10 CFU/g / ≥1CFU/ml / < 1CFU/ml
			AOAC Official Method - Chapter 17 ,20 th Edition ;2005.03 (by SimPlate	≥10 CFU/g / <10 CFU/g
			ISO 4832 / IS5401(Part1)	≥10 CFU/g / <10 CFU/g
			USFDA-BAM, Chapter 4:July 2017 (Using by Chromogenic Media)	≥10 CFU/g / <10 CFU/g
		Enterobacteriaceae	Compendium APHA 5 th Edition- Chapter 9	≥10 CFU/g / <10 CFU/g
		Escherichia coli	USFDA- BAM, July 2017 Chapter 4	Qualitative (Detected/Not Detected)/g
			USFDA -BAM, July 2017 Chapter 4 (Using Chromogenic Media)	Qualitative (Detected/Not Detected)/g
			AOAC 20 th Edition- 2005.03 ;Chapter 17 (by SimPlate Method)	≥10 CFU/g / <10 CFU/g

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		Yeasts & Molds	USFDA-BAM, Chapter18 : April 2001	≥10 CFU/g / <10 CFU/g / ≥1CFU/ml / < 1CFU/ml
			AOAC Official Method- Chapter 17, 20 th Edition 2002.11 (by SimPlate)	≥10 CFU/g / <10 CFU/g
			IS 5403	≥10 CFU/g / <10 CFU/g
			ISO-21527 (Part 1)	≥10 CFU/g / <10 CFU/g
		Bacillus cereus	USFDA- BAM, February 2012 ;Chapter 14	≥10 CFU/g / <10 CFU/g
		Faecal streptococci (Enterococci)	Compendium APHA 5 th Edition- Chapter 10	≥10 CFU/g / <10 CFU/g
		Staphylococcus aureus	USFDA- BAM, March 2016; Chapter 12	≥10 CFU/g / <10 CFU/g
		Sulphite reducing anaerobes	Compendium APHA 5 th Edition- Chapter 28	≥10 CFU/g / <10 CFU/g
		Clostridium perfringens	USFDA- BAM, January 2001 ;Chapter 16	≥10 CFU/g / <10 CFU/g
		Listeria monocytogenes	USFDA- BAM March 2017 ;Chapter 10	Qualitative (Detected/Not Detected) /25 g
		Mesophilic aerobic sporeformers count	Compendium APHA 5 th Edition; Chapter 23	≥10 CFU/g / <10 CFU/g
		Mesophilic anaerobic sporeformers count	Compendium APHA 5 th Edition; Chapter 24	≥10 CFU/g / <10 CFU/g
		Thermophilic Anaerobic spore count(55°C)	Compendium APHA 5 th Edition; Chapter 27	≥10 spore / <10 spore per 10 g / <2 to >1600 MPN/g/ml
		Thermophilic Flat sour Sporeformers	Compendium APHA 5 th Edition- Chapter 26	≥10spore/10 g / <10spore/10 g

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		Salmonella	USFDA- BAM, March 2018 ; Chapter 5	Qualitative (Detected/Not Detected) /25 g/50 g/125g/375g/750g
			ISO:6579 (Part 1)	Qualitative (Detected/Not Detected) /25 g/50 g/125g/375g/750g
		Lactic Acid Bacteria	Compendium APHA 5 th Edition- Chapter 19	≥10 CFU/g / <10 CFU/g
		Heat Resistant Mould	Compendium APHA 5 th Edition- Chapter 22	Qualitative (Detected/Not Detected) /100 g/ml /20ml
		Thermophilic Acidophilic Bacteria	Compendium APHA 5 th Edition- Chapter 25	Qualitative (Detected/Not Detected) /g/ml,0.01g/ml,10g/ml
			IFU Method no: 12	Qualitative (Detected/Not Detected) /g/ml,0.01g/ml,10g/ml
		Howard Mould count	AOAC 20 th Edition- 982.33	2 % to 100 % (LOD 2 %)
			AOAC 20 th Edition- 965.41	4 % to 100 % (LOD 4 %)
		Shigella	USFDA -BAM February 2013 ;Chapter 6	Qualitative (Detected/Not Detected) /25 g
			ISO 21567	Qualitative (Detected/Not Detected) /25 g
			IS 5887 (Part 7)	Qualitative (Detected/Not Detected) 25 g
		Detection of vibrio parahaemolyticus & vibrio cholera	ISO/TS 21872 (Part 1)	Qualitative (Detected/Not Detected) /25 g

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		Incubation at 37°c for 10days & 55°c for 7 days	IS 2860, RA 2001, 18.1.1 A	Qualitative (No change/Significant change in pH)
3.	Herbs, Spices & Condiments	Total Bacterial count (TPC , TVC ,TBC ,SPC)	USFDA- BAM -Chapter 3: January 2001	≥10 CFU/g / <10 CFU/g
			NMKL No. 86;5 th Edition	≥10 CFU/g / <10 CFU/g
			AOAC 20 th Edition- 990.12 Chapter 17 (by Petrifilm Method)	≥10 CFU/g / <10 CFU/g
			ISO 4833 Part 1/ IS 5402	≥10 CFU/g / <10 CFU/g
			AOAC 20 th Edition- 2002.07 Chapter 17 (by SimPlate Method)	≥10 CFU/g / <10 CFU/g
		Coliforms	USFDA- BAM July 2017, Chapter 4	≥10 CFU/g / <10 CFU/g
			NMKL No.44 ;6 th Edition- 2004	≥10 CFU/g / <10 CFU/g
			AOAC 20 th Edition- 991.14 Chapter 17 (by Petrifilm Method)	≥10 CFU/g / <10 CFU/g
			ISO 4832/ IS 5401 (Part 1)	≥10 CFU/g / <10 CFU/g
			USFDA- BAM, Chapter 4 July 2017 (Using by Chromogenic Media)	≥10 CFU/g / <10 CFU/g
			AOAC 20 th Edition- 2005.03 Chapter 17 (by SimPlate Method)	≥10 CFU/g / <10 CFU/g
			USFDA-BAM, Chapter 4: July 2017	<3 to >1100 MPN/g
		Enterobacteriaceae	NMKL No. 144;(3 rd Edition	≥10 CFU/g / <10 CFU/g

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			Compendium APHA ;5 th Edition- Chapter 9	≥10 CFU/g / <10 CFU/g
			ISO-21528 Part 2	≥10 CFU/g / <10 CFU/g
		Escherichia coli	USFDA- BAM, July 2017; Chapter 4	Qualitative (Detected/Not Detected)/g
			NMKL No. 147	Qualitative (Detected/Not Detected)/g
			AOAC 20 th Edition- 991.14 Chapter 17 (by Petrifilm Method)	Qualitative (Detected/Not Detected)/g
			USFDA BAM, July 2017; Chapter 4 (Using Chromogenic Media)	Qualitative (Detected/Not Detected)/g
			AOAC 20 th Edition- 2005.03 Chapter 17 (by SimPlate Method)	≥10 CFU/g / <10 CFU/g
			USFDA-BAM, Chapter 4 : July 2017	<3 to >1100 MPN/g
		Yeasts & Moulds	USFDA BAM, April 2001 Chapter18	≥10 CFU/g / <10 CFU/g
			IS 5403	≥10 CFU/g / <10 CFU/g
			NMKL No. 98 ;4 th Edition: 2005	≥10 CFU/g / <10 CFU/g
			AOAC 20 th Edition- 997.02 Chapter 17 (Petrifilm Method)	≥10 CFU/g / <10 CFU/g
			ISO-21527- (Part 1)/ ISO-21527- (Part 2)	≥10 CFU/g / <10 CFU/g
			AOAC 20 th Edition- 2002.11 Chapter 17 SimPlate Official Method	≥10 CFU/g / <10 CFU/g

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		Bacillus cereus	USFDA BAM, February 2012 Chapter 14	≥10 CFU/g / <10 CFU/g
			NMKL No. 67;6 th Edition: 2010	≥10 CFU/g / <10 CFU/g
			ISO 7932/ IS 5887 (Part 6)	≥10 CFU/g / <10 CFU/g
		Faecal streptococci (Enterococci)	Compendium APHA ;5 th Edition- Chapter 10	≥10 CFU/g / <10 CFU/g
		Staphylococcus aureus	USFDA BAM, March 2016 Chapter 12	≥10 CFU/g / <10 CFU/g
			NMKL No.66 ;5 th Edition- 2009	≥10 CFU/g / <10 CFU/g
			ISO 6888 Part 1/ IS 5887 (Part 8/Sec I)	≥10 CFU/g / <10 CFU/g
		Sulphite reducing anaerobes (Spore Formers)	Compendium APHA ;5 th Edition-Chapter 28	≥10 CFU/g / <10 CFU/g
		Sulphite Reducing Clostridium spores	ISO 15213	≥10 CFU/g / <10 CFU/g
		Clostridium perfringens	USFDA- BAM, January 2001 Chapter 16	≥10 CFU/g / <10 CFU/g
			ISO 7937	≥10 CFU/g / <10 CFU/g
			NMKL No. 95;5 th Edition- 2009	≥10 CFU/g / <10 CFU/g
		Listeria monocytogenes	USFDA BAM March 2017 Chapter 10	Qualitative (Detected/Not Detected) /25 g
			NMKL No.136 ;5 th Edition- 2010	Qualitative (Detected/Not Detected) /25 g
			ISO 11290 Part 1/ IS 14988 (Part 1)	Qualitative (Detected/Not Detected) /25 g

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		Mesophilic aerobic sporeformers count	Compendium APHA (5 th Edition) Chapter 23	≥10 CFU/g / <10 CFU/g
		Mesophilic anaerobic sporeformers count	Compendium APHA (5 th Edition) Chapter 24	≥10 CFU/g / <10 CFU/g
		Thermophilic Anaerobic spore count(55°C)	Compendium APHA (5 th Edition) Chapter 27	≥10 spore / <10 spore per 10 g / <2 to >1600 MPN/g/ml
		Thermophilic Flat sour Sporeformers	Compendium APHA (5 th Edition) Chapter 26	≥10spore/10 g / <10spore/10 g
		Salmonella	USFDA BAM, March 2018 Chapter 5	Qualitative(Detected/Not Detected) /25 g/50 g/125 g/375 g/750 g
			NMKL No. 71 (5 th Edition): 1999	Qualitative(Detected/Not Detected) /25 g/50 g/125 g/375 g/750 g
			ISO 6579-1	Qualitative(Detected/Not Detected) /25 g/50 g/125 g/375 g/750 g
		Lactic Acid Bacteria	Compendium APHA (5 th Edition) Chapter 19	≥10 CFU/g / <10 CFU/g
			NMKL No.140 (2 nd Edition): 2007	≥10 CFU/g / <10 CFU/g
			ISO:15214:1998	≥10 CFU/g / <10 CFU/g
		Shigella sp	USFDA BAM February 2013Chapter 6	Qualitative (Detected/Not Detected) /25 g
			ISO 21567	Qualitative (Detected/Not Detected) /25 g
			IS 5887 (Part 7)	Qualitative (Detected/Not Detected) /25 g

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		Detection of vibrio parahaemolyticus & vibrio cholerae	ISO/TS 21872 (Part 1)	Qualitative (Detected/Not Detected) /25 g
		Incubation at 37°c for 10days & 55°c for 7 days	IS 2860, RA 2001, 18.1.1 A	Qualitative (No change/Significant change in pH)
II.	ENVIRONMENT AND POLLUTION			
1.	Bioburden Estimation of Classified & Non Classified Area	TVC	ISO18593 & ISO 4833 testing	≥10 CFU per swab : ≥10 CFU /25 cm ² /50 cm ² /100cm ² area of swab
			ISO18593 & ISO 4833 testing	<10 CFU per swab ; <10 CFU /25 cm ² /50 cm ² /100cm ² area of swab
		Yeast	ISO18593 & IS-5403 testing	≥10 CFU per swab : ≥10 CFU /25 cm ² /50 cm ² /100cm ² area of swab
			ISO18593 & IS-5403 testing	<10 CFU per swab ; <10 CFU /25 cm ² /50 cm ² /100cm ² area of swab
		Mould	ISO18593 & IS-5403 testing	≥10 CFU per swab : ≥10 CFU /25 cm ² /50 cm ² /100cm ² area of swab
			ISO18593 & IS-5403 testing	<10 CFU per swab ; <10 CFU /25 cm ² /50 cm ² /100cm ² area of swab
		Coliform	ISO18593 & ISO 4832 testing	≥10 CFU per swab , ≥10 CFU /25 cm ² /50 cm ² /100cm ² area of swab
			ISO18593 & IS-4832 testing	<10 CFU per swab, <10 CFU /25 cm ² /50 cm ² /100cm ² area of swab
		Salmonella	ISO18593 & USFDA-BAM, Chapter 5 testing	Qualitative (Detected/Not Detected /100 cm ² /swab)

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			ISO18593 & USFDA-BAM, Chapter 5 testing	Qualitative (Detected/Not Detected/ 100 cm ² area of swab)
III.	MOLECULAR ANALYSIS (VIROLOGY)			
1.	Banana Leaf/Sucker	Cucumber Mosaic Virus (CMV)	J6BIOV-SOP 001 Rev: 00 ; Date: 01.04.2017	Qualitative (Detected/Not Detected) (LOD = 1%)
		Banana Streak Virus (BSV)	J6BIOV-SOP 002 Rev: 00 ; Date:-01.04.2017	Qualitative (Detected/Not Detected) (LOD = 1%)
		Banana Bunchy Top Virus (BBTV)	J6BIOV-SOP 003 Rev: 00 ;Date: 01.04.2017	Qualitative (Detected/Not Detected) (LOD = 1%)
		Banana Bract Mosaic Virus (BBrMV)	J6BIOV-SOP 004 Rev: 00; Date: 01.04.2017	Qualitative (Detected/Not Detected) (LOD = 1%)
IV.	WATER			
1.	Drinking Water	Coliform	IS 1622 USFDA BAM, July 2017 Chapter 4	<2 to 542 MPN /100ml < 1.8 to >1600 MPN/100ml
		E.coli	IS 1622 USFDA BAM July 2017, Chapter 4	<2 to 542 MPN /100ml < 1.8 to >1600 MPN/100ml
2.	Water For Processed Food Industry	Coliform	IS 1622 USFDA BAM July 2017, Chapter 4	<2 to 542 MPN /100ml < 1.8 to >1600 MPN/100ml
		Standard Plate count	IS 1622	≤10 CFU/ml, ≥CFU/ml
		E.coli	IS 1622	<2 to 542 MPN /100ml

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CHEMICAL TESTING

I.	FOOD AND AGRICULTURAL PRODUCT			
1.	Fruit & Fruit products: Aseptic/ Frozen / Individual Quick Frozen (IQF)	Brix	ISO 2173 : 2003 2 nd Edition 2003-12-01	0.01 % to 95%
		pH	ISO 1842 : 1991 2 nd Edition 1991-12-01	0.01 to 14
		Acidity -as Citric acid / -as Tartaric acid / -as Acetic acid / -as Mallic Acid	J6-CHEMF-SOP-17 Rev.01 Dated 01.03.2018	0.1 % to 10 %
		Ascorbic Acid	J6-CHEMF-SOP-06 Rev.00 Dated 01.04.2017	50.0 mg/kg to 5000 mg/kg
		Viscosity	J6-CHEMF-SOP-03 Rev.00 Dated 01.04.2017	2000 cps to 1,00,000 cps
		Consistency	J6-CHEMF-SOP-05 Rev.00 Dated 01.04.2017	0.5 cm/30Sec to 23.5 cm/30Sec
		Color Value (L, a, b)	J6-CHEMF-SOP-02 Rev.00 Dated 01.04.2017	0.01 Unit to 100 Units
		Black/Brown Speck Count	J6-CHEMF-TM-01 Rev.00 Dated 01.04.2017	1to 200
		Speck count -Seed	J6-CHEMF-TM-01 Rev.00 Dated 01.04.2017	Max.10
			Hydroxy Methyl Furfural	ISO 7466
	Salt content	J6-CHEMF-SOP-09 Rev.00 Dated 01.04.2017	0.1 % to 5 %	
2.	Jams, Juices, Sauces & Concentrates	Brix	ISO 2173 : 2003 2 nd Edition 2003-12-01	0.01 % to 95%
		pH	ISO 1842: 1991, 2 nd Edition 1991-12-01	0.01 to 14

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		Acidity (As Citric / Tartaric / Acetic/Mallic Acid)	J6CHEMF-SOP-17 Rev.01 Dated 01.03.2018	0.1% to 10 %
		Hydroxy Methyl Furfural	ISO 7466 First Edition 1986-09-15	0.5mg/kg to 250 mg/kg
		Turbidity	J6-CHEMF-SOP-01 Rev.00 Dated 01.04.2017	0.5 NTU to 1000 NTU
3.	Herbs, Spices & Condiments	Brix	ISO 2173 : 2003 2 nd Edition 2003-12-01	0.01 % to 95%
		Particle size analysis	ADOGA, 14 th Edition; April 2005. Page No.15 of 38/ J6CHEMF-SOP-21, Rev.00 Dated 01.04.2017	1% to 100%.
		Moisture	ADOGA 14 th Edition; April 2005. Page No.16-17 of 38/ ASTA 4 th Edition Method 2.1/ J6-CHEMF-SOP-25;Rev.01 Dated 01.03.2018	0.2% to 95 %
		Speck count & Defects	ADOGA 14 th Edition; April 2005. Page No.24-25 of 38/ J6-CHEMF-SOP-26 Rev.00 Dated 01.04.2017	Speck =1No to 50 s. Defect =0.01% to 2.5%
		Bulk Index	ADOGA 14 th Edition; April 2005. Page No. 26 of 38 / ASTA 4 th Edition, Method 25.0 / J6-CHEMF-SOP-22;Rev.00 Dated 01.04.2017	(100ml to 800 ml) /100gm
		Total ash	ISO 928 :1997 Second Edition 1997-12-15 / ASTA 4 th Edition 1997 Method No.3.0	0.5% to 10.0 %

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		Acid Insoluble Ash	ISO 928, Second Edition 1997-12-15 / ASTA 4th Edition 1997 Method No.4.0	0.01% to 5.0%
		Crude Fiber	IS 1797 : 1985 Sept 1986	1 % to 30 %
		Hot water Insoluble	ADOGA 14 th Ed., April 2005. Page No. 22-23 of 38/ J6-CHEMF-SOP-24 Rev.01 Dated 01.03.2018	1 % to 50%
		Optical Index	ADOGA 14 th Edition., April 2005. Page No. 17-18 of 38/ J6-CHEMF-SOP-23 Rev.01 Dated 01.03.2018	20 Unit to 2500 Unit
		Moisture (by Toulene Distillation)	ASTA Method No.2.0, 1997, Page No. 3-5/ FSSAI 1st Edition 2017 Page 522 to 524 / J6-CHEMF-SOP-27 Rev.00 Dated 18.11.2017	3 % to 15 %
		Volatile Oil	ASTA Method No.5.0, 1997, Page No. 17-19 / FSSAI 1st Edition 2017 Page 535to 538 / IS 1797 / J6-CHEMF-SOP-28 Rev.00 Dated 18.11.2017	0.1 % to 8 %
		Curcumin	ASTA Method No.18.0, 2004, Page No. 81-83 / FSSAI 1st Edition 2017 Page 547 to 548 / J6-CHEMF-SOP-31 Rev.00 Dated 18.11.2017	0.5 % to 10 %

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		Extractable Colour	ASTA Method No.20.1 1997, Page No. 90-91 / FSSAI 1st Edition 2017 Page 557 to 558 // J6-CHEMF-SOP-29 Rev.00 Dated 18.11.2017	30 to 1000
		Piperine	ASTA Method No.12.1 1997, Page No. 51-53 / FSSAI 1st Edition 2017 Page 542 to 543/ J6-CHEMF-SOP-30 Rev.00 Dated 18.11.2017	3 % to 10 %
		pH	ISO 1842:1991	0.01 to 14
		Acidity (As Citric/ Tartaric / Acetic/Malic Acid)	ISO 750:1998	0.1 % to 10 %
		Water Activity	J6-CHEMF-SOP-32 Rev.00 Dated 24.01.2018/ (ISO 18787)	0.03 aW to 1.0 aW
		Allergen (Mustard as Allergen Peanut as Allergen Almond as Allergen Gluten as Allergen,)	J6-CHEMF-SOP-33 J6-CHEMF-SOP-34 J6-CHEMF-SOP-35 J6-CHEMF-SOP-36 (Rev.00 Dated 10.05.2018)	1 mg/kg to 100 mg/kg 0.13 mg/kg to 5 mg/kg 0.11 mg/kg to 1 mg/kg 1.2 mg/kg to 40 mg/kg
4.	Vegetables and Vegetable Products	Brix	ISO 2173, 2 nd Edition 2003-12-01	0.01 % to 95%
		pH	ISO 1842, 2 nd Edition 1991-12-01	Up to 14
		Acidity (As Citric / Tartaric / Acetic/Malic Acid)	J6CHEMF-SOP-17 Rev.01 Dated 01.03.2018	0.1 % to 10 %

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5.	Food Others- Sensory Evaluation of Food Products :			
a.	Fruit & Fruit Products, Individual Quick Frozen (IQF) Jams, Juices, Sauces & Concentrates Herbs, Spices & Condiments	Physical examination: -Colour -Aroma -Taste -Flavor -Appearance -Texture	J6-CHEMF-SOP-10 Rev.01 dated 02.05.13/ ISO 4121 -2003(E)	1 Hedonic Scale to 7 Hedonic Scale
6.	Plant Materials (Leaves)	Total Nitrogen	AOAC 20 th Edition; 955.04: 2016 Official Method,	0.1 % to 8 %
		Total Potassium	AOAC 20 th Edition; 956.01: 2016 Official Method	0.05 % to 8 %
		Total Sodium	AOAC 20 th Edition; 956.01: 2016 Official Method	5 mg/kg to 1000 mg/kg
		Total Calcium	AOAC 20 th Edition; 975.03: 2016 Official Method	0.05 % to 5 %
		Total Magnesium	AOAC 20 th Edition; 975.03: 2016 Official Method	0.2 % to 2 %
		Total Manganese	AOAC 20 th Edition; 975.03: 2016 Official Method	0.005 % to 1 %
		Total Iron	AOAC 20 th Edition; 975.03: 2016 Official Method	10 mg/kg to 1000 mg/kg
		Total Zinc	AOAC 20 th Edition; 975.03: 2016 Official Method	2 mg/kg to 100 mg/kg

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		Total Copper	AOAC 20 th Edition; 975.03: 2016 Official Method	2 mg/kg to 100 mg/kg
II.	WATER			
1.	Potable & Domestic Water	pH	APHA 23 rd Edition- 2017 - 4500 H ⁺ : 2012 Electrometric method,	0.01 to 14.00
		Electrical Conductivity	IS 3025 (Part 14) 2013	0.01 mS/cm to 200 mS/cm
		Turbidity	APHA 23 rd Edition-2017 - 2130 B	0.1 NTU to 100 NTU
		Total Hardness	IS 3025 (Part 21) 2013	2 mg/l to 1000 mg/l
		Calcium	APHA 23 rd Edition-2017- 3500 Ca B	1 mg/l to 1000 mg/l
		Magnesium	APHA 23 rd Edition-2017- 3500 Mg B	1 mg/l to 500 mg/l
		Chloride	APHA 23 rd Edition-2017- 4500 Cl ⁻ B	1.5 mg/l to 1000 mg/l
		Total Alkalinity	IS 3025 (Part 23)	5 mg/l to 1000 mg/l
		Sulphate	IS 3025 (Part 24)	1 mg/l to 400 mg/l
		Total Dissolved Solids	APHA 23 rd Edition-2017- 2540 C	5 mg/l to 1000 mg/l
		Sodium	IS 3025 (Part 45)	1.0 mg/l to 500 mg/l
		Potassium	IS 3025 (Part 45)	0.5 mg/l to 100 mg/l
		Residual Chlorine	APHA 23 rd Edition-2017- 4500 Cl B	1.0 mg/l to 100 mg/l
III.	SOIL			
1.	Agriculture Farm Soil	pH	ISO 10390	4 to 10
		Specific Electrical Conductivity	ISO 11265	0.005 mS/cm to 2.000 mS/cm
		Organic Carbon	J6 CHEMG SOP 32 Issue 01 dated 02.05.2013	0.02 % to 2 %

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		Available Nitrogen	J6 CHEMG SOP 33 Issue 01 dated 02.05.2013	14 kg/ha to 1000 kg/ha
		Available Phosphorous	ISO11263 (1994)	5kg/ha to 200 kg/ha
		Exchangeable Potassium	J6 CHEMG SOP 35 Issue 01 dated 02.05.2013 Based on J. Bentone Jones Jr., Laboratory Guide	50 kg/ha to 1000 kg/ha
		Exchangeable Calcium	J6 CHEMG SOP 35 Issue 01 dated 02.05.2013 Based on J. Bentone Jones Jr., Laboratory Guide	0.005 % to 1 %
		Exchangeable Sodium	J6 CHEMG SOP 35 Issue 01 dated 02.05.2013 Based on J. Bentone Jones Jr., Laboratory Guide	10 mg/kg to 1000 mg/kg
		Exchangeable Magnesium	J6 CHEMG SOP 35 Issue 01 dated 02.05.2013 Based on J. Bentone Jones Jr., Laboratory Guide	1 mg/kg to 1000 mg/kg
		Available manganese	ISO 14870	0.5 mg/kg to 100 mg/kg
		Available iron	ISO 14870	0.5 mg/kg to 100 mg/kg
		Available zinc	ISO 14870	0.5 mg/kg to 100 mg/kg
		Available copper	ISO 14870	0.5 mg/kg to 100 mg/kg
		Bulk density	J6 CHEMG SOP 31	0.5 g/cc to 2.5 g/cc
IV.	RESIDUE IN FOOD PRODUCTS			
1.	Pesticide Residues in food products:	Acephate	J6CHEMG SOP 49 Issue 02; Dated 01.07.2018	0.01 mg/kg to 0.5mg/kg
		Aldicarb	(Based on AOAC	0.01 mg/kg to 0.5mg/kg
		Atrazine		0.01 mg/kg to 0.5mg/kg

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	Fruits and Fruit Products, Processed Fruits (Sauces, Ketch up ,Puree,Pulp,Paste, Drinks,Juices,Fruit nectar	Azinophos Methyl	2007.01) 20 th edition, 2016 (by LC-MS/MS)	0.01 mg/kg to 0.5mg/kg
		Azoxystrobin		0.01 mg/kg to 0.5mg/kg
		Benalaxyl		0.01 mg/kg to 0.5mg/kg
		Bendiocarb		0.01 mg/kg to 0.5mg/kg
		Boscalid		0.01 mg/kg to 0.5mg/kg
		Carbaryl		0.01 mg/kg to 0.5mg/kg
		Carbendazim		0.001 mg/kg to 0.5mg/kg
		Carbofuran		0.01 mg/kg to 0.5mg/kg
		Chinomethionate		0.01 mg/kg to 0.5mg/kg
		Chlorfenvinphos		0.01 mg/kg to 0.5mg/kg
		Chlorfurazuron		0.01 mg/kg to 0.5mg/kg
		Diazinon		0.01 mg/kg to 0.5mg/kg
		Dichlorovos		0.01 mg/kg to 0.5mg/kg
		Diclofluanid		0.01 mg/kg to 0.5mg/kg
		Diethofencarb		0.01 mg/kg to 0.5mg/kg
		Dimethoate		0.01 mg/kg to 0.5mg/kg
		Dimethomorph		0.01 mg/kg to 0.5mg/kg
		Diphenylamine		0.01 mg/kg to 0.5mg/kg
		Disulfoton		0.01 mg/kg to 0.5mg/kg
		Ethion		0.01 mg/kg to 0.5mg/kg
		Etrimphos		0.01 mg/kg to 0.5mg/kg
	Fenamidone	0.01 mg/kg to 0.5mg/kg		
	Fenamiphos	0.01 mg/kg to 0.5mg/kg		
	Fenarimole	0.01 mg/kg to 0.5mg/kg		
	Fenbutatin oxide	0.01 mg/kg to 0.5mg/kg		
	Fenitrothion	0.01 mg/kg to 0.5mg/kg		
	Fenpyroximate	0.01 mg/kg to 0.5mg/kg		
	Fenthion	0.01 mg/kg to 0.5mg/kg		
	Flubendiamide	0.01 mg/kg to 0.5mg/kg		
	Fludioxonil	0.01 mg/kg to 0.5mg/kg		
	Hexaconazole	0.01 mg/kg to 0.5mg/kg		
	Imidacloprid	0.01 mg/kg to 0.5mg/kg		
	Indoxocarb	0.01 mg/kg to 0.5mg/kg		

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		Iprobenphos		0.01 mg/kg to 0.5mg/kg
		Isoproturon		0.01 mg/kg to 0.5mg/kg
		Kresoxim Methyl		0.01 mg/kg to 0.5mg/kg
		Lenacil		0.01 mg/kg to 0.5mg/kg
		Malathion		0.01 mg/kg to 0.5mg/kg
		Mecarbam		0.01 mg/kg to 0.5mg/kg
		Mepronil		0.01 mg/kg to 0.5mg/kg
		Metalaxyl		0.01 mg/kg to 0.5mg/kg
		Methidathion		0.01 mg/kg to 0.5mg/kg
		Methiocarb		0.01 mg/kg to 0.5mg/kg
		Methomyl		0.01 mg/kg to 0.5mg/kg
		Mevinphos		0.01 mg/kg to 0.5mg/kg
		Monocrotophos		0.01 mg/kg to 0.5mg/kg
		Myclobutanil		0.01 mg/kg to 0.5mg/kg
		Oxamyl		0.01 mg/kg to 0.5mg/kg
		Oxydemeton Methyl		0.01 mg/kg to 0.5mg/kg
		Paclobutrazole		0.01 mg/kg to 0.5mg/kg
		Paraxon Methyl		0.01 mg/kg to 0.5mg/kg
		Penconazole		0.01 mg/kg to 0.5mg/kg
		Pendimethalin		0.01 mg/kg to 0.5mg/kg
		Phenthoate		0.01 mg/kg to 0.5mg/kg
		Phorate		0.01 mg/kg to 0.5mg/kg
		Phosalone		0.01 mg/kg to 0.5mg/kg
		Phosphamidon		0.01 mg/kg to 0.5mg/kg
		Picloram		0.01 mg/kg to 0.5mg/kg
		Pirimicarb		0.01 mg/kg to 0.5mg/kg
		Pirimicarb Methyl		0.01 mg/kg to 0.5mg/kg
		Prochloraz		0.01 mg/kg to 0.5mg/kg
		Propaquizafop		0.01 mg/kg to 0.5mg/kg
		Propiconazole		0.01 mg/kg to 0.5mg/kg
		Pyrazophos		0.01 mg/kg to 0.5mg/kg
		Quinalphos		0.01 mg/kg to 0.5mg/kg
		Quizalofop Ethyl		0.01 mg/kg to 0.5mg/kg

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		Sethoxydim		0.01 mg/kg to 0.5mg/kg
		Spinosad		0.01 mg/kg to 0.5mg/kg
		Tebuconazol		0.01 mg/kg to 0.5mg/kg
		Tetraconazole		0.01 mg/kg to 0.5mg/kg
		Thiabendazole		0.01 mg/kg to 0.5mg/kg
		Thiacloprid		0.01 mg/kg to 0.5mg/kg
		Thiobencarb		0.01 mg/kg to 0.5mg/kg
		Thiophenate Methyl		0.01 mg/kg to 0.5mg/kg
		Tolclophos Methyl		0.01 mg/kg to 0.5mg/kg
		Trichlorfon		0.01 mg/kg to 0.5mg/kg
		Triademiphon		0.01 mg/kg to 0.5mg/kg
		Triazophos		0.01 mg/kg to 0.5mg/kg
		Trifloxystrobin		0.01 mg/kg to 0.5mg/kg
		Triflumizol		0.01 mg/kg to 0.5mg/kg
		Aldrin	J6CHEMGSOP 49	0.01 mg/kg to 0.5mg/kg
		Allethrin	Issue 02;Dated 01.07.2018	0.01 mg/kg to 0.5mg/kg
		Alphamethrin	(Based on AOAC 2007.01	0.01 mg/kg to 0.5mg/kg
		Alpha Endosulfon	20 th edition, 2016 (by GC-	0.01 mg/kg to 0.5mg/kg
		Anilophos	MS/MS)	0.01 mg/kg to 0.5mg/kg
		Azinophos Methyl		0.01 mg/kg to 0.5mg/kg
		Beta Cyfluthrin		0.01 mg/kg to 0.5mg/kg
		Beta Endosulfon		0.01 mg/kg to 0.5mg/kg
		Bifenazate		0.01 mg/kg to 0.5mg/kg
		Bromophos Ethyl		0.01 mg/kg to 0.5mg/kg
		Chlorbenzilate		0.01 mg/kg to 0.5mg/kg
		Chlordane		0.01 mg/kg to 0.5mg/kg
		Chlorpropham		0.01 mg/kg to 0.5mg/kg
		Chlorpyriphos		0.01 mg/kg to 0.5mg/kg
		Chlorpyriphos Methyl		0.01 mg/kg to 0.5mg/kg
		Chlorothalonil		0.01 mg/kg to 0.5mg/kg
		Cypermethrin		0.01 mg/kg to 0.5mg/kg
		DDT		0.01 mg/kg to 0.5mg/kg
		Delta HCH		0.01 mg/kg to 0.5mg/kg

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		Deltamethrin		0.01 mg/kg to 0.5mg/kg
		Dicofol		0.01 mg/kg to 0.5mg/kg
		Dieldrin		0.01 mg/kg to 0.5mg/kg
		Dioxathion		0.01 mg/kg to 0.5mg/kg
		Endrin		0.01 mg/kg to 0.5mg/kg
		Etofenprox		0.01 mg/kg to 0.5mg/kg
		Etoxazole		0.01 mg/kg to 0.5mg/kg
		Fenclorphos		0.01 mg/kg to 0.5mg/kg
		Fenvelerate (1+2)		0.01 mg/kg to 0.5mg/kg
		Fipronil		0.01 mg/kg to 0.5mg/kg
		Flucythrinate		0.01 mg/kg to 0.5mg/kg
		Folpet		0.01 mg/kg to 0.5mg/kg
		Formothion		0.01 mg/kg to 0.5mg/kg
		HCH Alpha		0.01 mg/kg to 0.5mg/kg
		HCH Beta		0.01 mg/kg to 0.5mg/kg
		Heptachlor		0.01 mg/kg to 0.5mg/kg
		Iprodione		0.01 mg/kg to 0.5mg/kg
		Lambda Cyhalothrin		0.01 mg/kg to 0.5mg/kg
		Lindane		0.01 mg/kg to 0.5mg/kg
		Malathion		0.01 mg/kg to 0.5mg/kg
		Oxyflourfen		0.01 mg/kg to 0.5mg/kg
		Methyl Parathion		0.01 mg/kg to 0.5mg/kg
		Parathion		0.01 mg/kg to 0.5mg/kg
		Permethrin		0.01 mg/kg to 0.5mg/kg
		Phosmet		0.01 mg/kg to 0.5mg/kg
		Pirimiphos Methyl		0.01 mg/kg to 0.5mg/kg
		Prothiophos		0.01 mg/kg to 0.5mg/kg
		Propoxur		0.01 mg/kg to 0.5mg/kg
		Pyridaben		0.01 mg/kg to 0.5mg/kg
		Pyriproxyfen		0.01 mg/kg to 0.5mg/kg
		Simazine		0.01 mg/kg to 0.5mg/kg
		Quintozene		0.01 mg/kg to 0.5mg/kg
		Tau-Fluvalinate		0.01 mg/kg to 0.5mg/kg

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		Tetradifon		0.01 mg/kg to 0.5mg/kg
		Thiometon		0.01 mg/kg to 0.5mg/kg
		Trifluralin		0.01 mg/kg to 0.5mg/kg
2.	Pesticide Residues in food products: Vegetables and Vegetable Products, Processed vegetables	Acephate	J6CHEMGSOP 49 Issue 02;Dated 01.07.2018 (Based on AOAC 2007.01) 20 th edition, 2016 (by LC-MS/MS)	0.01 mg/kg to 0.5mg/kg
		Aldicarb		0.01 mg/kg to 0.5mg/kg
		Atrazine		0.01 mg/kg to 0.5mg/kg
		Azinophos Methyl		0.01 mg/kg to 0.5mg/kg
		Azoxystrobin		0.01 mg/kg to 0.5mg/kg
		Benalaxyl		0.01 mg/kg to 0.5mg/kg
		Bendiocarb		0.01 mg/kg to 0.5mg/kg
		Boscalid		0.01 mg/kg to 0.5mg/kg
		Carbaryl		0.01 mg/kg to 0.5mg/kg
		Carbendazim		0.01 mg/kg to 0.5mg/kg
		Carbofuran		0.001 mg/kg to 0.5mg/kg
		Chinomethionate		0.01 mg/kg to 0.5mg/kg
		Chlorfenvinphos		0.01 mg/kg to 0.5mg/kg
		Chlorfurazuron		0.01 mg/kg to 0.5mg/kg
		Diazinon		0.01 mg/kg to 0.5mg/kg
		Dichlorovos		0.01 mg/kg to 0.5mg/kg
		Diclofluanid		0.01 mg/kg to 0.5mg/kg
	Diethofencarb	0.01 mg/kg to 0.5mg/kg		
	Dimethoate	0.01 mg/kg to 0.5mg/kg		
	Dimethomorph	0.01 mg/kg to 0.5mg/kg		
	Diphenylamine	0.01 mg/kg to 0.5mg/kg		
	Disulfoton	0.01 mg/kg to 0.5mg/kg		
	Ethion	0.01 mg/kg to 0.5mg/kg		
	Etrimphos	0.01 mg/kg to 0.5mg/kg		
	Fenamidone	0.01 mg/kg to 0.5mg/kg		
	Fenamiphos	0.01 mg/kg to 0.5mg/kg		
	Fenarimole	0.01 mg/kg to 0.5mg/kg		
	Fenbutatine Oxide	0.01 mg/kg to 0.5mg/kg		
	Fenitrothion	0.01 mg/kg to 0.5mg/kg		
	Fenpyroximate	0.01 mg/kg to 0.5mg/kg		

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		Fenthion		0.01 mg/kg to 0.5mg/kg
		Flubendiamide		0.01 mg/kg to 0.5mg/kg
		Fludioxonil		0.01 mg/kg to 0.5mg/kg
		Hexaconazole		0.01 mg/kg to 0.5mg/kg
		Imidacloprid		0.01 mg/kg to 0.5mg/kg
		Indoxocarb		0.01 mg/kg to 0.5mg/kg
		Iprobenphos		0.01 mg/kg to 0.5mg/kg
		Isoproturon		0.01 mg/kg to 0.5mg/kg
		Kresoxim Methyl		0.01 mg/kg to 0.5mg/kg
		Lenacil		0.01 mg/kg to 0.5mg/kg
		Malathion		0.01 mg/kg to 0.5mg/kg
		Mecarbam		0.01 mg/kg to 0.5mg/kg
		Mepronil		0.01 mg/kg to 0.5mg/kg
		Metalaxyl		0.01 mg/kg to 0.5mg/kg
		Methidathion		0.01 mg/kg to 0.5mg/kg
		Methiocarb		0.01 mg/kg to 0.5mg/kg
		Methomyl		0.01 mg/kg to 0.5mg/kg
		Mevinphos		0.01 mg/kg to 0.5mg/kg
		Monocrotophos		0.01 mg/kg to 0.5mg/kg
		Myclobutanil		0.01 mg/kg to 0.5mg/kg
		Oxamyl		0.01 mg/kg to 0.5mg/kg
		Oxydemeton Methyl		0.01 mg/kg to 0.5mg/kg
		Paclobutrazole		0.01 mg/kg to 0.5mg/kg
		Paraxon Methyl		0.01 mg/kg to 0.5mg/kg
		Penconazole		0.01 mg/kg to 0.5mg/kg
		Pendimethalin		0.01 mg/kg to 0.5mg/kg
		Phenthoate		0.01 mg/kg to 0.5mg/kg
		Phorate		0.01 mg/kg to 0.5mg/kg
		Phosalone		0.01 mg/kg to 0.5mg/kg
		Phosphamidon		0.01 mg/kg to 0.5mg/kg
		Picloram		0.01 mg/kg to 0.5mg/kg
		Pirimicarb		0.01 mg/kg to 0.5mg/kg
		Pirimicarb Methyl		0.01 mg/kg to 0.5mg/kg

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Prochloraz		0.01 mg/kg to 0.5mg/kg
		Propaquizafop		0.01 mg/kg to 0.5mg/kg
		Propiconazole		0.01 mg/kg to 0.5mg/kg
		Pyrazophos		0.01 mg/kg to 0.5mg/kg
		Quinalphos		0.01 mg/kg to 0.5mg/kg
		Quizalofop Ethyl		0.01 mg/kg to 0.5mg/kg
		Sethoxydim		0.01 mg/kg to 0.5mg/kg
		Spinosad		0.01 mg/kg to 0.5mg/kg
		Tebuconazol		0.01 mg/kg to 0.5mg/kg
		Tetraconazole		0.01 mg/kg to 0.5mg/kg
		Thiabendazole		0.01 mg/kg to 0.5mg/kg
		Thiacloprid		0.01 mg/kg to 0.5mg/kg
		Thiobencarb		0.01 mg/kg to 0.5mg/kg
		Thiophenate Methyl		0.01 mg/kg to 0.5mg/kg
		Tolclophos methyl		0.01 mg/kg to 0.5mg/kg
		Trichlorfon		0.01 mg/kg to 0.5mg/kg
		Triademiphon		0.01 mg/kg to 0.5mg/kg
		Triazophos		0.01 mg/kg to 0.5mg/kg
		Trifloxystrobin		0.01 mg/kg to 0.5mg/kg
		Triflumizol		0.01 mg/kg to 0.5mg/kg
		Aldrin	J6CHEMGSOP 49	0.01 mg/kg to 0.5mg/kg
		Alphamethrin	Issue 02; Dated 01.07.2018	0.01 mg/kg to 0.5mg/kg
		Alpha Endosulfon	(Based on AOAC 2007.01	0.01 mg/kg to 0.5mg/kg
		Anilophos	20 th edition, 2016)	0.01 mg/kg to 0.5mg/kg
		Azinophos Methyl	(by GC-MS/MS)	0.01 mg/kg to 0.5mg/kg
		Beta Cyfluthrin		0.01 mg/kg to 0.5mg/kg
		Beta Endosulfon		0.01 mg/kg to 0.5mg/kg
		Bifenazate		0.01 mg/kg to 0.5mg/kg
		Bromophos Ethyl		0.01 mg/kg to 0.5mg/kg
		Chlorbenzilate		0.01 mg/kg to 0.5mg/kg
		Chlordane		0.01 mg/kg to 0.5mg/kg
		Chlorpropham		0.01 mg/kg to 0.5mg/kg
		Chlorpyrifos		0.01 mg/kg to 0.5mg/kg

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Chlorpyriphos Methyl		0.01 mg/kg to 0.5mg/kg
		Chlorothalonil		0.01 mg/kg to 0.5mg/kg
		Cypermethrin		0.01 mg/kg to 0.5mg/kg
		DDT		0.01 mg/kg to 0.5mg/kg
		Delta HCH		0.01 mg/kg to 0.5mg/kg
		Deltamethrin		0.01 mg/kg to 0.5mg/kg
		Dicofol		0.01 mg/kg to 0.5mg/kg
		Dieldrin		0.01 mg/kg to 0.5mg/kg
		Dioxathion		0.01 mg/kg to 0.5mg/kg
		Endrin		0.01 mg/kg to 0.5mg/kg
		Etofenprox		0.01 mg/kg to 0.5mg/kg
		Etoxazole		0.01 mg/kg to 0.5mg/kg
		Fenchlorphos		0.01 mg/kg to 0.5mg/kg
		Fenvelerate (1+2)		0.01 mg/kg to 0.5mg/kg
		Fipronil		0.01 mg/kg to 0.5mg/kg
		Folpet		0.01 mg/kg to 0.5mg/kg
		Formothion		0.01 mg/kg to 0.5mg/kg
		HCH Alpha		0.01 mg/kg to 0.5mg/kg
		HCH Beta		0.01 mg/kg to 0.5mg/kg
		Heptachlor		0.01 mg/kg to 0.5mg/kg
		Iprodione		0.01 mg/kg to 0.5mg/kg
		Lambda Cyhalothrin		0.01 mg/kg to 0.5mg/kg
		Lindane		0.01 mg/kg to 0.5mg/kg
		Malathion		0.01 mg/kg to 0.5mg/kg
		Methyl Parathion		0.01 mg/kg to 0.5mg/kg
		Oxyflourfen		0.01 mg/kg to 0.5mg/kg
		Parathion		0.01 mg/kg to 0.5mg/kg
		Permethrin		0.01 mg/kg to 0.5mg/kg
		Phosmet		0.01 mg/kg to 0.5mg/kg
		Pirimiphos Methyl		0.01 mg/kg to 0.5mg/kg
		Prothiophos		0.01 mg/kg to 0.5mg/kg
		Propoxur		0.01 mg/kg to 0.5mg/kg
		Pyridaben		0.01 mg/kg to 0.5mg/kg

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		Pyriproxyfen		0.01 mg/kg to 0.5mg/kg
		Simazine		0.01 mg/kg to 0.5mg/kg
		Quintozene		0.01 mg/kg to 0.5mg/kg
		Tetradifon		0.01 mg/kg to 0.5mg/kg
		Thiometon		0.01 mg/kg to 0.5mg/kg
		Trifluralin		0.01 mg/kg to 0.5mg/kg
3.	Pesticide Residues in food products: Spices and Condiments whole and its powder spices, Herbs and its finish products	Acephate	J6 CHEM G SOP 50 Issue 02, D: 01.07.based on AOAC 2007.01 20 th edition, 2016 (by LC-MS MS)	0.01 mg/kg to 0.5mg/kg
		Aldicarb		0.01 mg/kg to 0.5mg/kg
		Atrazine		0.01 mg/kg to 0.5mg/kg
		Azinophos Methyl		0.01 mg/kg to 0.5mg/kg
		Azoxystrobin		0.01 mg/kg to 0.5mg/kg
		Benalaxyl		0.01 mg/kg to 0.5mg/kg
		Bendiocarb		0.01 mg/kg to 0.5mg/kg
		Boscalid		0.01 mg/kg to 0.5mg/kg
		Carbaryl		0.01 mg/kg to 0.5mg/kg
		Carbendazim		0.01 mg/kg to 0.5mg/kg
		Carbofuran		0.001 mg/kg to 0.5mg/kg
		Chinomethionate		0.01 mg/kg to 0.5mg/kg
		Chlorfenvinphos		0.01 mg/kg to 0.5mg/kg
		Chlorfurazuron		0.01 mg/kg to 0.5mg/kg
		Diazinon		0.01 mg/kg to 0.5mg/kg
		Dichlorovos		0.01 mg/kg to 0.5mg/kg
		Diethofencarb		0.01 mg/kg to 0.5mg/kg
		Dimethoate		0.01 mg/kg to 0.5mg/kg
		Dimethomorph		0.01 mg/kg to 0.5mg/kg
		Diphenylamine		0.01 mg/kg to 0.5mg/kg
Disulfoton		0.01 mg/kg to 0.5mg/kg		
Ethion		0.01 mg/kg to 0.5mg/kg		
Etrimphos		0.01 mg/kg to 0.5mg/kg		
Fenamidone		0.01 mg/kg to 0.5mg/kg		
Fenamiphos		0.01 mg/kg to 0.5mg/kg		
Fenarimole		0.01 mg/kg to 0.5mg/kg		
Fenbutatine Oxide		0.01 mg/kg to 0.5mg/kg		

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		Fenitrothion		0.01 mg/kg to 0.5mg/kg
		Fenpyroximate		0.01 mg/kg to 0.5mg/kg
		Fenthion		0.01 mg/kg to 0.5mg/kg
		Fludioxonil		0.01 mg/kg to 0.5mg/kg
		Hexaconazole		0.01 mg/kg to 0.5mg/kg
		Imidacloprid		0.01 mg/kg to 0.5mg/kg
		Indoxocarb	J6 CHEM G SOP 50	0.01 mg/kg to 0.5mg/kg
		Iprobenphos	Issue 02, Dated: 01.07.18	0.01 mg/kg to 0.5mg/kg
		Isoproturon	based on AOAC 2007.01	0.01 mg/kg to 0.5mg/kg
		Kresoxim Methyl	20 th edition, 2016	0.01 mg/kg to 0.5mg/kg
		Lenacil	(by LC-MS/MS)	0.01 mg/kg to 0.5mg/kg
		Malathion		0.01 mg/kg to 0.5mg/kg
		Mecarbam		0.01 mg/kg to 0.5mg/kg
		Mepronil		0.01 mg/kg to 0.5mg/kg
		Metalaxyl		0.01 mg/kg to 0.5mg/kg
		Methidathion		0.01 mg/kg to 0.5mg/kg
		Methiocarb		0.01 mg/kg to 0.5mg/kg
		Methomyl		0.01 mg/kg to 0.5mg/kg
		Mevinphos		0.01 mg/kg to 0.5mg/kg
		Monocrotophos		0.01 mg/kg to 0.5mg/kg
		Myclobutanil		0.01 mg/kg to 0.5mg/kg
		Oxamyl		0.01 mg/kg to 0.5mg/kg
		Oxydemeton Methyl		0.01 mg/kg to 0.5mg/kg
		Paclobutrazole		0.01 mg/kg to 0.5mg/kg
		Paraxon Methyl		0.01 mg/kg to 0.5mg/kg
		Penconazole		0.01 mg/kg to 0.5mg/kg
		Pendimethalin		0.01 mg/kg to 0.5mg/kg
		Phenthoate		0.01 mg/kg to 0.5mg/kg
		Phorate		0.01 mg/kg to 0.5mg/kg
		Phosalone		0.01 mg/kg to 0.5mg/kg
		Phosphamidon		0.01 mg/kg to 0.5mg/kg
		Picloram		0.01 mg/kg to 0.5mg/kg
		Pirimicarb		0.01 mg/kg to 0.5mg/kg

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		Pirimicarb Methyl		0.01 mg/kg to 0.5mg/kg
		Prochloraz		0.01 mg/kg to 0.5mg/kg
		Propaquizafop		0.01 mg/kg to 0.5mg/kg
		Propiconazole		0.01 mg/kg to 0.5mg/kg
		Pyrazophos		0.01 mg/kg to 0.5mg/kg
		Quinalphos		0.01 mg/kg to 0.5mg/kg
		Quizalofop Ethyl		0.01 mg/kg to 0.5mg/kg
		Sethoxydim		0.01 mg/kg to 0.5mg/kg
		Spinosad		0.01 mg/kg to 0.5mg/kg
		Tebuconazol		0.01 mg/kg to 0.5mg/kg
		Tetraconazole		0.01 mg/kg to 0.5mg/kg
		Thiabendazole		0.01 mg/kg to 0.5mg/kg
		Thiacloprid		0.01 mg/kg to 0.5mg/kg
		Thiobencarb		0.01 mg/kg to 0.5mg/kg
		Thiophenate Methyl		0.01 mg/kg to 0.5mg/kg
		Tolclophos Methyl		0.01 mg/kg to 0.5mg/kg
		Trichlorfon		0.01 mg/kg to 0.5mg/kg
		Triademiphon		0.01 mg/kg to 0.5mg/kg
		Triazophos		0.01 mg/kg to 0.5mg/kg
		Trifloxystrobin		0.01 mg/kg to 0.5mg/kg
		Triflumizol		0.01 mg/kg to 0.5mg/kg
		Aldrin	J6 CHEM G SOP 50	0.01 mg/kg to 0.5mg/kg
		Alpha Endosulfon	Issue 02, Dated: 01.07.18	0.01 mg/kg to 0.5mg/kg
		Anilophos	based on AOAC 2007.01	0.01 mg/kg to 0.5mg/kg
		Azinophos Methyl	20 th edition, 2016	0.01 mg/kg to 0.5mg/kg
		Beta Cyfluthrin	(by GC-MS/MS)	0.01 mg/kg to 0.5mg/kg
		Beta Endosulfon		0.01 mg/kg to 0.5mg/kg
		Bifenazate		0.01 mg/kg to 0.5mg/kg
		Bromophos Ethyl		0.01 mg/kg to 0.5mg/kg
		Chlorbenzilate		0.01 mg/kg to 0.5mg/kg
		Chlordane		0.01 mg/kg to 0.5mg/kg
		Chlorpropham		0.01 mg/kg to 0.5mg/kg
		Chlorpyrifos		0.01 mg/kg to 0.5mg/kg

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		Chlorpyriphos Methyl		0.01 mg/kg to 0.5mg/kg
		Chlorthalonil		0.01 mg/kg to 0.5mg/kg
		Cypermethrin		0.01 mg/kg to 0.5mg/kg
		DDT		0.01 mg/kg to 0.5mg/kg
		Delta HCH		0.01 mg/kg to 0.5mg/kg
		Deltamethrin		0.01 mg/kg to 0.5mg/kg
		Dicofol		0.01 mg/kg to 0.5mg/kg
		Dieldrin		0.01 mg/kg to 0.5mg/kg
		Dioxathion		0.01 mg/kg to 0.5mg/kg
		Endrin		0.01 mg/kg to 0.5mg/kg
		Etofenprox		0.01 mg/kg to 0.5mg/kg
		Etoxazole		0.01 mg/kg to 0.5mg/kg
		Fenclorphos		0.01 mg/kg to 0.5mg/kg
		Fipronil		0.01 mg/kg to 0.5mg/kg
		Flucythrinate		0.01 mg/kg to 0.5mg/kg
		HCH Alpha		0.01 mg/kg to 0.5mg/kg
		HCH Beta		0.01 mg/kg to 0.5mg/kg
		Heptachlor		0.01 mg/kg to 0.5mg/kg
		Iprodione		0.01 mg/kg to 0.5mg/kg
		Lambda Cyhalothrin		0.01 mg/kg to 0.5mg/kg
		Lindane		0.01 mg/kg to 0.5mg/kg
		Malathion		0.01 mg/kg to 0.5mg/kg
		Methyl Parathion		0.01 mg/kg to 0.5mg/kg
		Parathion		0.01 mg/kg to 0.5mg/kg
		Phosmet		0.01 mg/kg to 0.5mg/kg
		Pirimiphos Methyl		0.01 mg/kg to 0.5mg/kg
		Prothiophos		0.01 mg/kg to 0.5mg/kg
		Pyridaben		0.01 mg/kg to 0.5mg/kg
		Pyriproxyfen		0.01 mg/kg to 0.5mg/kg
		Simazine		0.01 mg/kg to 0.5mg/kg
		Quintozene		0.01 mg/kg to 0.5mg/kg
		Tau-Fluvalinate		0.01 mg/kg to 0.5mg/kg
		Tetradifon		0.01 mg/kg to 0.5mg/kg

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		Thiometon		0.01 mg/kg to 0.5mg/kg
		Trifluralin		0.01 mg/kg to 0.5mg/kg
4.	Trace Elements in Food Products: Fruits and Fruit Products, Vegetables and Vegetable Products	Lead	J6CHEMG SOP 41 Issue 02,Dated 01.07.2018 (by Atomic Absorption Spectroscopy)	0.05mg/kg to 1.00 mg/kg
		Cadmium		0.03mg/kg to 1.00 mg/kg
		Zinc		0.1 mg/kg to 1.00 mg/kg
		Copper		0.1 mg/kg to 1.00 mg/kg
		Iron		0.1 mg/kg to 1.00 mg/kg
5.	Trace Elements in Food Products: Fruits and Fruit Products	Lead	J6 CHEMG SOP 48 Issue 02;Dated 01.07.2018 (by ICPMS)	0.005 mg/kg to 1.0 mg/kg
		Cadmium		0.005 mg/kg to 1.0 mg/kg
		Antimony		0.005 mg/kg to 1.0 mg/kg
		Arsenic		0.005 mg/kg to 1.0 mg/kg
		Nickel		0.005 mg/kg to 1.0 mg/kg
		Cobalt		0.005 mg/kg to 1.0 mg/kg
		Chromium		0.005 mg/kg to 1.0 mg/kg
		Mercury		0.005 mg/kg to 1.0 mg/kg
		Tin		0.005 mg/kg to 1.0 mg/kg
		Vanadium		0.005 mg/kg to 1.0 mg/kg
		Copper		0.1 mg/kg to 5 mg/kg
		Iron		0.1 mg/kg to 5 mg/kg
		Zinc		0.1 mg/kg to 5 mg/kg
		Boron		0.1 mg/kg to 5 mg/kg
		Barium		0.1 mg/kg to 5 mg/kg
	Aluminium	0.1 mg/kg to 5 mg/kg		
	Manganese	0.1 mg/kg to 5 mg/kg		
	Silver	0.1 mg/kg to 5 mg/kg		
	Sodium	0.25 mg/kg to 10 mg/kg		
	Calcium	0.25 mg/kg to 10 mg/kg		
	Potassium	0.25 mg/kg to 10 mg/kg		
	Magnesium	0.25 mg/kg to 10 mg/kg		

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6.	Trace Elements in Food Products: Vegetables and Vegetable Products, Processed vegetables	Lead	J6 CHEMG SOP 48 Issue 02;Dated 01.07.2018 (by ICPMS)	0.005 mg/kg to 1.0 mg/kg
		Cadmium		0.005 mg/kg to 1.0 mg/kg
		Antimony		0.005 mg/kg to 1.0 mg/kg
		Arsenic		0.005 mg/kg to 1.0 mg/kg
		Nickel		0.005 mg/kg to 1.0 mg/kg
		Cobalt		0.005 mg/kg to 1.0 mg/kg
		Chromium		0.005 mg/kg to 1.0 mg/kg
		Mercury		0.005 mg/kg to 1.0 mg/kg
		Tin		0.005 mg/kg to 1.0 mg/kg
		Vanadium		0.005 mg/kg to 1.0 mg/kg
		Copper		0.1 mg/kg to 5 mg/kg
		Iron		0.1 mg/kg to 5 mg/kg
		Zinc		0.1 mg/kg to 5 mg/kg
		Boron		0.1 mg/kg to 5 mg/kg
		Barium		0.1 mg/kg to 5 mg/kg
		Aluminium		0.1 mg/kg to 5 mg/kg
		Manganese		0.1 mg/kg to 5 mg/kg
Silver	0.1 mg/kg to 5 mg/kg			
Sodium	0.25 mg/kg to 10 mg/kg			
Calcium	0.25 mg/kg to 10 mg/kg			
Potassium	0.25 mg/kg to 10 mg/kg			
Magnesium	0.25 mg/kg to 10 mg/kg			
7.	Trace Elements in Food Products: Spices and Condiments whole and its powder spices, Herbs and its finish products	Lead	J6 CHEMG SOP 48 Issue 02;Dated 01.07.2018 (by ICPMS)	0.005 mg/kg to 1.0 mg/kg
		Cadmium		0.005 mg/kg to 1.0 mg/kg
		Antimony		0.005 mg/kg to 1.0 mg/kg
		Arsenic		0.005 mg/kg to 1.0 mg/kg
		Nickel		0.005 mg/kg to 1.0 mg/kg
		Cobalt		0.005 mg/kg to 1.0 mg/kg
		Chromium		0.005 mg/kg to 1.0 mg/kg
		Mercury		0.005 mg/kg to 1.0 mg/kg
		Tin		0.005 mg/kg to 1.0 mg/kg
		Vanadium		0.005 mg/kg to 1.0 mg/kg
Copper	0.1 mg/kg to 5 mg/kg			

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		Iron		0.1 mg/kg to 5 mg/kg
		Zinc		0.1 mg/kg to 5 mg/kg
		Boron		0.1 mg/kg to 5 mg/kg
		Barium		0.1 mg/kg to 5 mg/kg
		Aluminium		0.1 mg/kg to 5 mg/kg
		Manganese		0.1 mg/kg to 5 mg/kg
		Silver		0.1 mg/kg to 5 mg/kg
		Sodium		0.25 mg/kg to 10 mg/kg
		Calcium		0.25 mg/kg to 10 mg/kg
		Potassium		0.25 mg/kg to 10 mg/kg
		Magnesium		0.25 mg/kg to 10 mg/kg
8.	Mycotoxin residues in Food products : Spices and Condiments whole and its powder spices, Herbs and its finish products	Aflatoxin B1	J6CHEMGSOP 45 Issue 02;Dated 01.07.2018 /based on ASTA method 24.2/ 2004 version (by HPLC-FLD)	2 µg/kg to 200 µg/kg
		Aflatoxin B2		1 µg/kg to 200 µg/kg
		Aflatoxin G1		2 µg/kg to 200 µg/kg
		Aflatoxin G2		2 µg/kg to 200 µg/kg
		Total Aflatoxin		2 µg/kg to 200 µg/kg
		Ochratoxin- A	J6CHEMGSOP 46, Issue 02;Dated 01.07.2018/AOAC 20 th Edn., 2016, Ch. 49	10 µg/kg to 200 µg/kg
9.	Other Residues - Illegal dyes: Spices and Condiments whole and its powder spices, Herbs and its finish products	Sudan-I	J6CHEMG SOP 51 Issue 02 Date Dated 01.07.2018 (LC-MS/MS)	0.01 mg/kg to 0.5 mg/kg
		Sudan-II		0.01 mg/kg to 0.5mg/kg
		Sudan-III		0.01 mg/kg to 0.5mg/kg
		Sudan-IV		0.01 mg/kg to 0.5mg/kg
		Auramine O		0.01 mg/kg to 0.5mg/kg
		Rhodamine B		0.01 mg/kg to 0.5mg/kg
		Sudan Orange G		0.01 mg/kg to 0.5mg/kg
		Butter Yellow		0.01 mg/kg to 0.5mg/kg
		Toluidine Red		0.01 mg/kg to 0.5mg/kg
		Sudan red G		0.01 mg/kg to 0.5mg/kg
		Sudan Black B		0.01 mg/kg to 0.5mg/kg
		Sudan red 7B		0.01 mg/kg to 0.5mg/kg
	Sudan red B	0.01 mg/kg to 0.5mg/kg		