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

## **CHEMICAL TESTING**

I.	FOOD AND AGRI	CULTURAL PRODUCTS		
1.	Oils and Fats	Phosphorus content	AOCS Ca 12-55 6 <sup>th</sup> Ed 2017	0.1 mg/kg to 1000 mg/kg
		Pungency (AllylIsoThioCynate)	IS 548(Part-I) 1976 (R.A. 2011)	0.01 % to 0.6 %
		p-Anasidine value	AOCS Cd 18-90, 2017	0 to 100
		Totox Value	RLRC/QA/SOP/F-03/4 Issued on: April 2018, Issued No.: 01	By Calculation
		Titre test	AOCS Cc 12-59 7 <sup>th</sup> Ed 2017	20 °C to 50 °C
		Insoluble impurities	AOCS Ca 3a-46, 2017	0.1 % to 100 %
		TBHQ	AOAC 983.15.20 <sup>th</sup> Ed.2017	0.2 mg/kg to 5000 mg/kg
		Presence of sesame oil (Baudouins test)	IS 548(Part-II) 1976 (R.A. 2011)	Present/Absent
		Presence of Cottonseed (Halphen Test)	IS 548(Part-II) 1976 (R.A. 2011)	Present/Absent
		Presence of castor oil (Amoonium Molybdate)	IS 548(Part-II) 1976 (R.A. 2011)	Present/Absent
   		Bellier Turbidity test	IS 548(Part-II) 1976 (R.A. 2011)	10 °C to 60 °C
		Argemone oil	IS 548(Part-II) 1976 (R.A. 2011)	Present/Absent
		Hydrocyanic Acid	IS 548(Part-II) 1976 (R.A. 2011)	Present/Absent
		Presence of linseed oil (Hexabromide test)	IS 548(Part-II) 1976 (R.A. 2011)	Present/Absent
		Presence of Neem oil	IS 548(Part-II) 1976 (R.A. 2011)	Present/Absent

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[		Bleachability of oil	AOCS Cc 8b-52, 2017	5 % to 100 %
		Tocopherol content	AOAC 2012.09 20 <sup>th</sup> Ed. 2016	2.34 ppm to 10000 ppm
		Gama Oryzanol	RLRC/QA/F-03, Issue No. 01, Issue date-April 2018	0.2 mg/kg to 20000 mg/kg
		DOBI value in Palm Oil	PORIM Test Method p 2.9 (1995)	0.02 to 4.0
		Carotene Content in palm oil	AOCS Ce 9-0 7 <sup>th</sup> Ed. 2017	0.1 mg/kg to1000 mg/kg
		Mono Glyceride content in oil	AOCS Cd 11c-93 7 <sup>th</sup> Ed.2017	0.1 % to 100 %
		Di Glyceride content in oil	AOCS Cd 11c-93 7 <sup>th</sup> Ed.2017	0.1 % to 100 %
		Tri Glyceride content in oil	AOCS Cd 11c-93 7 <sup>th</sup> Ed.2017	0.1 % to 100 %
		TPC	AOCS Cd 20-91 7 <sup>th</sup> Ed.2017	0.02 % to 80 %
		Chlorophyll content	AOCS Cc 13i-96 7 <sup>th</sup> Ed.2017	0.01 μg/kg to 18000 μg/kg
		Oxidative Stability	AOCS Cd-12b-92 7 <sup>th</sup> Ed.2017	1 h to 100 h
		Gardener Color	AOCS Td 1a, 7 <sup>th</sup> Ed. 2017 MS817 P-10	1 unit to18 unit
		Hydroxyl Value	AOCS Cd 13-60 7 <sup>th</sup> Ed.2017	0.5 to 200
[		Conjugated Dienes &	AOCS Ti 1a, 64 7 <sup>th</sup>	Dienes: 0.1 to 30
<u> </u>		Trienes	Ed.2017	Trienes:0.1 to 35
		Calorific Value	RLRC/QA/2018/F-03/19, Issue No. 01, Issue date- April 2018	400 Kcal/100g to 1000 Kcal/100g
		Vitamin A	AOAC 995.05, 20 <sup>th</sup> Ed. 2017	100 IU/100gm to 10000 IU/100gm
		Fatty Acid Profile (C <sub>4</sub> -C <sub>24)</sub>	AOCS 7 <sup>th</sup> Ed Ce 1-62, 2017	0.5 % to 100 %

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		Free Fatty Acid	IS 548 (Part-I) 1964(7.3.1)	0.01 % to 99 %
		Moisture Content	IS 548 (Part-I) 1964 (5.1)	0.01 % to 20 %
		lodine Value, wij's	IS 548 (Part-I) 1964 (14)	01 to 250
		Saponification Value	IS 548 (Part-I) 1964 (15)	167 to 250
		Peroxide Value	IS 548 (Part-I) 1964 (20)	0.01 meq/kg to 50 meq/kg
		Refractive Index	IS 548 (Part-I) 1964 (10)	1.3000 to1.7000
		Colour (Lovibond)	IS 548 (Part-I) 1964 (13)	2.0 to 100
		Melting Point	IS 548 (Part-I) 1964 (9.1)	0.0 to 100 °C
		Cloud Point	FSSAI Manual – 2	2 °C to 40°C
		Specific Gravity at 30 °C	IS 548 (Part-I) 1964 (11.3.1)	0.800 °C to 2.0°C
		Unsaponifiable Matter	IS 548 (Part-I) 1964 (8.0)	0.5 % to 10 %
		Rancidity	FSSAI Manual- Oils & Fats 2016	Positive to Negative
		Mineral Oil	IS 548 (Part-II) 1976 (8.0)	Positive to Negative
		Artificial Colour	FSSAI Manual- Oils & Fats 2016	Positive to Negative
		Flash Point	IS 1448:1970	50 °C to 300 °C
2.	A) Cereals, Pulses and by- products B) Flours	Uric Acid	RLRC/QA/F-06-08-09/14 Issue No. 01, Issue date- April 2018	10 mg/kg to 200 mg/kg
	C) Snack products	Moisture	IS 4333(Part-2):2002	0.2 % to 20.0 %
	D) Food Grains	Total Ash	IS 1010:1968(R.A. 2015)	0.002 % to 10 %
	E) Nuts & Raisins	Ash Insoluble in Acid	IS 1010:1968(R.A. 2015)	0.05 % to 2.0%
	F) Aflatoxin	Dry Gluten	IS 1010:1968(R.A. 2015)	0.5 % to 20.0 %
		Wet Gluten	IS 1010:1968(R.A. 2015)	1 % to 40.0 %
		Crude Fibre	IS 1158:1973(R.A.2010)	0.2 % to 5.0 %
	ļ	Carbohydrate	IS 1656:2007	By Calculation
		Energy	RLRC/QA/2018/F-06-08- 09/13 Issue no:01, Issue date: April 2018	10.0 Kcal/100g to 500 Kcal/100g
		Protein	IS 3579:1975-Part-I (R.A. 2015)	0.2 % to 40.0 %

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		Alcoholic Acidity	FSSAI Lab Manual- Cereal & Cereal products:2016	0.01to2.0
		Extraneous Matter	IS 4333:1996(R.A. 2015)	Qualitative
		Foreign Edible Seeds	IS 4333:1996(R.A. 2015)	0.1 % to 10 %
		Aflatoxin	AOCS 7 <sup>th</sup> Ed. Ab-7-9, 2017	0.1 ppb to 200 ppb
		Weevilled Grains	IS 4333:1996(R.A. 2015)	Qualitative
3.	Spices, Herbs and	Moisture	IS 1797:2017	0.25 % to 20.0 %
	Condiments	Extraneous Matter	IS 1797:2017	Qualitative
	Whole &powdered	Foreign Edible Seeds	IS 1797:2017	Qualitative
	Chilli, methi,	Total Ash	IS 1797:2017	0.01 % to 15 %
	Amchoor, Imli,	Ash Insoluble in Acid	IS 1797:2017	0.01% to 95 %
	Haldi, Clove,	Ash Insoluble in water	IS 1797:2017	0.1 % to 10 %
	Cardamon,	Alcohol Soluble extract	IS 1797:2017	0.1 % to 100 %
	corriander, Black	Salt (NaCl)	IS 1797:2017	0.12 % to 20 %
	Pepper, Masala	Carbohydrate	IS 1656:2002 (R.A. 2017)	By Calculation
	blends, Cumin,	Energy	RLRC/QA/2018/F-06-08-	1 Kcals/100 gm to
	Dal Chini, Soya		09/13, Issue No. 01,	1000 Kcals/100 gm
	Sause		Issued date- April, 2018,	9
		Crude Fat	IS 3579:1966 (R.A. 2017)	0.2 % to 30 %
		Volatile Oil	IS 1797:1985 (R.A. 2017)	0.1 % to 35 %
		Non-Volatile Ether Extract	IS 1797:2017	1 % to 30 %
		Crude Fiber	IS 1797:2017	0.01 % to 50 %
		Cold Water-Soluble Extract	IS 1797:2017	0.1 % to 95 %
		Calcium (as CaO)	IS 1797:2017	0.01 % to 25 %
		Protein	IS 7219:1973 (RA 2010)	0.2 % to 35 %
<b>I</b> .	Sugar & by- Products	Moisture	FSSAI Manual Beverages and Confectionary 2015	0.02 % to 10.0 %
	Refined Sugar Plantation white	Sucrose	FSSAI Manual Beverages and Confectionary 2015	1.0 % to 100.0 %
	sugar Cube sugar	Reducing sugars	FSSAI Manual Beverages and Confectionary 2015	0.001 % to 70.0 %
	Soft Sugar Khandasari	Total Ash	FSSAI Manual Beverages and Confectionary 2015	0.01 % to 10.0 %

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Jaggery Bura	Water Insoluble matter	FSSAI Manual Beverages and Confectionary 2015	0.001 % to 10.0 %
	lcing Misri	Sulphated ash	FSSAI Manual Beverages and Confectionary 2015	0.1 % to 2.0 %
	Invert Syrups (Glucose)	Acid Insoluble Ash	FSSAI Manual Beverages and Confectionary 2015	0.001% to 10.0 %
	Caramel	Extraneous matter	IS 1797:1985 (R.A. 2013)	0.01 % to 10.0 %
	Gur	Starch	FSSAI Manual Beverages and Confectionary 2015	Qualitative
		Calcium Oxide	FSSAI Manual Beverages and Confectionary 2015	1.0mg/100g to 100 mg/100g
5.	Oil Seeds, Co- Products & By	Moisture Content	IS 7874 (Part-I)-1975 (R.A. 2015)	5 % to 50 %
	Products Raw and	Crude Protein	IS 7874 (Part-I)-1975 (R.A. 2015)	1 % to 70 %
	processed oil, Deoiled Cake	Urea Nitrogen	IS 7874 (Part-I)-1975 (R.A. 2015)	0.1 % to 10 %
		Crude Fat	IS 7874 (Part-I)-1975 (R.A. 2015)	0.01% to 70 %
		Crude Fiber	IS 7874 (Part-I)-1975 (R.A. 2015)	1 % to 10 %
		Total Ash	IS 7874 (Part-I)-1975 (R.A. 2015)	0.1 % to 30 %
		Acid Insoluble Ash	IS 7874 (Part-I)-1975 (R.A. 2015)	0.1 % to 20 %
		Extraneous Matter	ÌS 1797:1985 (R.A. 2015)	Qualitative
		Foreign Matter	IS 2323:2011 (R.A. 2015)	Qualitative
		Heated & damaged seed	IS 2323:2011 (R.A. 2015)	Qualitative
		Salt	IS 7874 (Part-II)-1975 (R.A. 2015)	0.01 % to 10 %
		Calcium	IS 7874 (Part-II)-1975 (R.A. 2015)	0.1 % to 10 %
		Phosphorus	IS 7874 (Part-II)-1975 (R.A. 2015)	0.1 % to 10 %

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6.	Milk and Dairy Products Cheese,	Moisture	FSSAI MANUAL Milk & Milk Products -2016	0.1 % to 99.0 %
	Condensed Milk, Dairy Whitener,	Total solid	IS 1479 (Part-II):1961 (R.A. 2018)	1.0 % to 99.0%
	SMP, Sweets, Paneer, Casein,	Total Fat	FSSAI MANUAL Milk & Milk Products -2016	0.2 %to 60.0%
	Lactose Powder,	Insolubility index	IS 12759:1989 (RA 2010)	0.01 ml to 3.0 ml
	WPC, Ice Creams, Yogurt, Ghee	Solid not fat	IS 1479:1961 (Part-I) (R.A. 2016)	1.0 % to 50.0 %
		Sucrose	IS1479:1961 (Part-II) (RA 2018)	1.0 % to 80.0 %
		Chlorides	IS 1479 (Part-II):1961 (RA 2018)	0.01 % to 30.0 %
		pH value	IS 1000:1989 (RA 2014)	1.0 to 14.0
		RM value	IS 3508:1966 (RA 2018)	1 to 35
		Polenske Value	IS 3508:1966 (RA 2012)	0.1 to 10
		Kirschner value	IS 3508:1966 (RA 2012)	1 to 35
		Peroxide Value	IS 548 (Part-I):1964	0.1 meq/kg to 50 meq/kg
		Free Fatty Acid	IS 548 (Part-I):1964	0.05 % to 10 %
		Saponification value	IS 548 (Part-I):1964	100 to 300
		lodine value	IS 548 (Part-I):1964	3 to 150
		Unsaponifiable matter	IS 548 (Part-I):1964	0.02 % to 5 %
		Baudouins test	IS 548 (Part-II):1976 (RA 2010)	Qualitative
		Melting point	IS 3508:1966 (RA 2012)	15 °C to40 °C
		Colour	IS 3508:1966 (RA 2012)	0.05 to 60
		Refractive Index	IS 3508:1966 (RA 2012)	1.4250 to 1.4800
		BR Reading	IS 3508:1966 (RA 2012)	15to60
<b></b>		Energy	RLRC/QA/2018/F-06-08- 09/13 Issue no:01, Issue date-April 2018	10.0 Kcal/100g to 1000 Kcal/100g
		Oxidative Stability of Ghee	AOCS Cd-12b-92 7 <sup>th</sup> Ed.2017	1 h to 100 h

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		Adulteration test of Raw Milk		
		Test for Neutralizer  Rosalic Acid Carbonates	FSSAI MANUAL Milk & Milk Products -2016	Qualitative
		Test of Alkalinity of Ash	FSSAI MANUAL Milk & Milk Products -2016	Qualitative
		Extraneous Water	FSSAI MANUAL Milk & Milk Products -2016	Qualitative
		Starch	FSSAI MANUAL Milk & Milk Products -2016	Qualitative
		Urea	FSSAI MANUAL Milk & Milk Products -2016	Qualitative
		Vegetable oil/Foreign fat on milk	IS 1479 (Part-I):1960 (RA 2016)	Qualitative
		Benzoic Acid	IS 1479 (Part-I):1960 (RA 2016)	Qualitative
		Test for Boric Acid or Borax	IS 1479 (Part-I):1960 (RA 2016)	Qualitative
		Hehner Test	IS 1479 (Part-I):1960 (RA 2016)	Qualitative
		Salicylic Acid	IS 1479 (Part-I):1960 (RA 2016)	Qualitative
		Hydrogen Peroxide	FSSAI MANUAL Milk & Milk Products -2016	Qualitative
		Hypochlorite	IS 1479 (Part-I):1960 (RA 2016)	Qualitative
		Test for Cane Sugar	IS 1479 (Part-I):1960 (RA 2016)	Qualitative
		Alcohol	IS 1479 (Part-I):1960 (RA 2016)	Qualitative
   		Flavour & Taste	IS 3508:1966(RA 2012)	Qualitative
		Lactose	IS 1479(Part-II):1961 (RA 2018)	1.0 % to 50.0 %

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		Synthetic Antioxidants  TBHQ BHA PG BHT	AOAC 983.15., 20 <sup>th</sup> Ed, 2016	0.1 mg/kg to1000 mg/kg 0.2 mg/kg to1000 mg/kg 0.2 mg/kg to1000 mg/kg 0.1 mg/kg to1000 mg/kg
		Iron Dissolved soaps Incubation test Vitamin D	IS 3508:1966 (RA 2012) IS 3508:1966 (RA 2012) IS 4884: 1968 (RA 2012) AOAC 995.05, 20 <sup>th</sup> Ed. 2016	1 mg/kg to100 mg/kg 5 mg/kg to1000 mg/kg Qualitative 100 IU/100gm to 10000 IU/100gm
		Carbohydrate Scorched particle Benzoic Acid	IS 1656:2007 (RA 2018) IS 13500: 1992(RA 2018) IS 1479(Part-I):1960 (RA 2016)	By Calculation Qualitative 1 mg/kg to 1000 mg/kg
II.	WATER			
1.	Raw Water, RO Water, Drinking Water	Colour	IS 3025(Part 4):1983 (R.A. 2002) by visual comparison	1 Hazen Unit to 500 Hazen Unit
	and Distilled Water	Odour	IS 3025(Part 5):1983 (R.A. 2002)	Qualitative
		pH Value	IS 3025 (Part-11):1983 (R.A. 2002)	2 to 12
		Turbidity NTU	IS 3025(Part 10):1984 (R.A. 2002) by turbidity meter	0.02 NTU to 1000 NTU
		Total Dissolved Solids	IS 3025(Part 16):1984 (R.A. 2006) by filtration & gravimetric & Electrode method	25 mg/L to 1000 mg/L
		Calcium (as Ca)	IS 3025 (Part- 40):1991(R.A. 2009) by EDTA titrimetric method	5 mg/L to 500 mg/L

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Chloride (as Cl)	IS 3025 (Part-32):1988 (R.A. 2007) by Argentometric method	5 mg/L to 200 mg/L
		Iron (as Fe)	IS 3025 (Part-53):2003 (R.A. 2009)	0.1 mg/L to10 mg/L
		Total Alkalinity as CaCO₃	IS3025 (Part-23):1986, (R.A. 2003) by titration method	5 mg/L to1000 mg/L
		Total Hardness	IS 3025 (Part-21):1983, (R.A. 2009) by EDTA titrimetric method	5 mg/L to1000 mg/L
		Sulphate (as SO <sub>4</sub> )	IS 3025 (Part-24):1986, (R.A. 1992) by turbidimetric method	2 mg/L to1000mg/L
		Sulphide (as H₂S)	IS 3025(Part 29):1986 (R.A. 2003) by methylene blue method.	0.02 mg/L to20 mg/L
		Magnesium (as Mg)	IS 3025 (Part-46):1994, (R.A. 2003) by Calculation method/Fssai Manual 2016	2 mg/L to1000 mg/L
		Silica	IS 3025 (Part-35):1988, (R.A. 2003) by Molybdosilicate method	0.5 mg/L to100 mg/L
		Nitrate (as NO₃)	IS 3025 (Part-34):1988, (R.A. 2003) by Chromotropic method	2 mg/L to100 mg/L
		Surfactants Anionic detergents (as MBAS)	IS -13428:2005, (RA 2013) by anionic Surfactant as MBAS	0.1 mg/L to100mg/L
		Phenolic Compound	IS 3025 (Part-43):1992, (R.A. 2003) by Chloroform Extraction method	0.1 mg/L to10 mg/L
		Ammoniacal Nitrogen	IS 3025 (Part-34):1988, (R.A. 2003) by Titration & ISE method	0.1 mg/L to100 mg/L

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III.	POLLUTION AND E	NVIRONMENT		
1.	Waste Water, Effluent Water,	pH Value	IS 3025 (Part-11):1983 (R.A. 2002)	1 to 14
		Turbidity NTU	IS 3025(Part 10):1984 (R.A. 2002) by turbidity meter	1 NTU to 1000 NTU
		Total solids	IS 3025(Part 15):1984 (R.A. 2003) by gravimetric method	50 mg/L to 10000 mg/L
		Total Dissolved Solids	IS 3025(Part 16):1984 (R.A. 2006) by filtration & gravimetric & Electrode method	250 mg/L to 10000 mg/L
		Total Suspended Solid	IS 3025(Part 17):1984 (R.A. 2012) by gravimetric method	5 mg/L to1000 mg/L
		COD	IS 3025(Part 58):2006 by open reflux method	4 mg/L to10000 mg/L
		Dissolved Oxygen	IS 3025(Part 38):1989 (R.A. 2003) by lodometric, Azide modification and ISE method	1 mg/L to 10 mg/L
		BOD	IS 3025(Part 44):1993 (R.A. 2003) by 5& 3- days test method	2 mg/L to 500 mg/L
		Oil & Grease	IS 3025(Part 39):1991 (R.A. 2003), by partition gravimetric method	1 mg/L to 1000 mg/L
		Sulphate (as SO <sub>4</sub> )	IS 3025 (Part-24):1986, (R.A. 1992) by turbidimetric method/ gravimetric	20 mg/L to 1000mg/L
		Ammonical Nitrogen	IS 3025 (Part-34):1988, (R.A. 2003) by Titration & ISE method	0.05 mg/L to 500 mg/L
		Sulphide (as H <sub>2</sub> S)	IS 3025(Part 29):1986	1 mg/L to 20 mg/L

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			(R.A. 2003) by methylene blue method.	
		Phenolic Compound	IS 3025 (Part-43):1992, (R.A. 2003) by Chloroform Extraction method	1 mg/L to 100 mg/L
		Chloride (as Cl)	IS 3025 (Part-32):1988 (R.A. 2007) by Argentometric method	20 mg/L to 1000 mg/L
		Iron	IS 3025 (Part-53):2003 (R.A. 2009)	0.10 mg/L to1000 mg/L
IV.	SOAP DETERGENT	& TOILLETRIES		
1.	Soap (Toilet Soap	Moisture and volatile matter	IS 286:1978	0 to 20 %
	Bathing Bar	Matter insoluble in alcohol	IS 286:1978	0.1 % to 95 %
	Baby Soap	Free Caustic Alkali or FFA	IS 286:1978	0.01 % to 15 %
	Transparent Soap	Matter insoluble in water	IS 286:1978	0.01 % to 15 %
	Medicinal Soap)	Total alkalinity of matter insoluble in Alcohol (Alkaline Salts)	IS 286:1978	0 to 95 %
		Combined Alkali and Total Anhydrous Soap	IS 286:1978	0.5 % to 75 %
		Chlorides	IS 286:1978	0.1 % to 5 %
		Unsaponifiable matter	IS 286:1978	0.1 % to 5 %
		Total fatty Matter	IS 286:1978	5 % to 85 %
		Titre of Total Fatty Acids	IS 286:1978	31 °C to 55 °C
		lodine Value, wij's	IS 286:1978	30 to 71
<b> </b>		Alkaline Silicates	IS 286:1978	0.1 % to 5 %
		Borax	IS 286:1978	0. 1 % to 5 %
 		Perborates	IS 286:1978	0. 01 % to 5 %
		Sulphates	IS 286:1978	0. 1 % to 5 %
		Glycerol	IS 286:1978	0.1 % to 35 %
		Sugars	IS 286:1978	0.1 % to 5 %
<b> </b>		Starch	IS 286:1978	0.1 % to 5 %

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		Combined Sodium and potassium oxides	IS 286:1978	0.1 % to 35 %
		Carbolic Acid and Cresylic Acid	IS 286:1978	0.1 % to 5 %
		Carbonates	IS 286:1978	0.1 % to 15 %
		Free carbonated Alkali	IS 286:1978	0.1 % to 5 %
2.	Detergent	Active Matter	IS 4955:2001	2 % to 98 %
		Sodium Tripoly Phosphate (STPP)	IS 4955:2001	5 % to 40 %
		Molecular Mass of Sodium Salt of Alkyl Benzene Sulphonic Acid	IS 4955:2001	280 to 370
		Active Alkalinity	IS 4955:2001	0.1 to 30
		Detergency Test	IS 4955:2001	10 % to 85 %
		pH	IS 4956:2002	6 to 12
		Clear Point	IS 4956:2002	0.01 to 20
		Matter Insoluble in Water	IS 4956:2002	0.01 % to 15 %
		Moisture &Volatile Matter	IS 4956:2002	0.1%to20%
		Foaming power	IS 5785:1970 (P-3)	10 ml to 1000 ml
٧.	INDUSTRIAL FINE	CHEMICAL		
1.	Bleaching Earth	Moisture	IS 1035: 1972 (R.A.2011) by gravimetric method	0.01 % to 50 %
		Bulk Density	IS 1035: 1972 (R.A.2011) by gravimetric method	0.01g/mL to 2 g/mL
		Sieve analysis	IS 1035: 1972 (R.A.2011) by gravimetric method	10 Micron to 500 Micron
		Acidity or alkalinity	IS 1035: 1972 (R.A.2011) by gravimetric method	0.01 % to 5 %
		Bleaching Efficiency	IS 1035: 1972 (R.A.2011) by gravimetric method	40 % to 100 %
		Filterability & oil retention in bleaching earth	IS 1035: 1972 (R.A.2011) by gravimetric method	1 % to 90 %

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Ash content	IS 1035: 1972 (R.A.2011)	0.01 % to 95 %
			by gravimetric method	
		pH	IS 1035: 1972 (R.A.2011)	2 to 14
2.	Citric Acid	Purity	IS 5464:1995	5 % to 100 %
		Sulphate	IS 5464:1995	Qualitative
		Halides	IS 5464:1995	Qualitative
		Sulphated Ash	IS 5464:1995	0.01% to 1 %
3.	Sulphuric Acid	Purity	IS 266:1993	0.1 % to 100 %
		Residue on ignition	IS 266:1993	0.01 % to 0.5 %
		Iron	IS 266:1993	Qualitative
		Chlorides	IS 266:1993	Qualitative
		Oxidizable Impurities	IS 266:1993	0 to 0.1%
4.	Turpentine	Relative Density @ 20 °C	IS 326 (Part 3)	0.860 to 0.870
		Relative Density @ 28 °C	IS 326 (Part 3)	0.852 to 0.862
		Refractive Index @ 20 °C	IS 326 (Part 5)	1.4600 to 1.4770
		Refractive Index @ 27 °C	IS 326 (Part 5)	1.4600 to 1.4750
		Acid Value	IS 326 (Part 7)	0.1 % to 2 %
5.	Activated Carbon	Moisture	IS 877:1989	0.1 % to 50 %
		Ash	IS 877:1989	0.1 % to 15 %
		Particle Size	IS 877:1989	10 Micron to 500 Micron
		Matter Soluble in Water	IS 877:1989	0.1% to 50 %
		Matter Soluble in Acid	IS 877:1989	0.1 % to 50 %
		рН	IS 877:1989	4 to 12
		Iron	IS 877:1989	0.001 % to 2 %
		Decolourizing Power	IS 877:1989	5 to 500
		Filterability	IS 877:1989	0 to 600 Min.
		Oil Retention	IS 877:1989	0.1 % to 50 %
		Sulphate	IS 877:1989	Qualitative
		Cynogen	IS 877:1989	Qualitative
6.	TBHQ	Purity	IS 11913:1986	0 to 100 %
7.	Oxalic Acid	Purity	IS 501:1976	0 to 100 %
		Sulphated Ash	IS 501:1976	0.001% to 5 %
		Chlorides	IS 501:1976	Qualitative
		Sulphates	IS 501:1976	Qualitative

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
8.	Phosphoric Acid	Purity	IS 798:986	0 to 100 %
	•	Volatile Acid	IS 798:986	Qualitative
		Nitrates	IS 798:986	Qualitative
		Chlorides	IS 798:986	Qualitative
		Sulphates	IS 798:986	Qualitative
9.	Sodium Hydroxide	Purity	IS 252:1991	0.1 % to 100 %
		Carbonates	IS 252:1991	0 to 5 %
10.	Hydrochloric Acid	Purity	IS 265:1993	0.1 % to 36 %
		Residue on Ignition	IS 265:1993	0.01 % to 1 %
		Sulphates	IS 265:1993	Qualitative
11.	Glycerine	Glycerol Content	IS 1796: 1986, (R.A. 2011)	0.1 % to 100 %
		Relative Density @ 25 °C	IS 1796: 1986, (R.A. 2011)	1.2490 to 1.2620
		Colour	IS 1796: 1986, (R.A. 2011)	0.1 unit to 20 Unit
		Total Ash	IS 1796: 1986, (R.A. 2011)	0.001 % to 20 %
		Non-Volatile Organic	IS 1796: 1986, (R.A. 2011)	0.01 % to 90 %
		Residue		
		Copper	IS 1796: 1986, (R.A. 2011)	Qualitative
		Chloride	IS 1796: 1986, (R.A. 2011)	0.01 mg/kg to 10000 mg/kg
		Sulphate	IS 1796: 1986, (R.A. 2011)	0.1 mg/kg to 34 mg/kg
		Alkalinity	IS 1796: 1986, (R.A. 2011)	0.001 % to 10 %
		Total free Alkali or Acid	IS 1796: 1986, (R.A. 2011)	0.001 % to 10 %
		Fatty Acid and Esters	IS 1796: 1986, (R.A. 2011)	0.001 % to 1 %
		Presence of Aldehyde and Glucose	IS 1796: 1986, (R.A. 2011)	Qualitative
		Presence of Reducing Substance	IS 1796: 1986, (R.A. 2011)	Qualitative
		Presence of Darkened Sulphuric acid	IS 1796: 1986, (R.A. 2011)	Qualitative
		Nitrogen	IS 1796: 1986, (R.A. 2011)	0.001 % to 10 %
		Moisture in Glycerine, KF Method	IS 1796: 1986, (R.A. 2011)	0.01 % to 20 %
		Ether Soluble Matter	IS 1796: 1986, (R.A. 2011)	Qualitative