

MANGO

Manufacturing  
Restricted Substances  
List ( MRS�)

Updated February 2023

# Manufacturing Restricted Substances List ( MRSL)

PARAMETER	CAS NUMBRER	REQUIREMENTS		GENERAL TECHNIQUES FOR ANALYSING CHEMICALS
		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
<b>1. AP / APEO</b>				
Octylphenol (OP)	Multiple, including 27193-28-8 140-66-9 1806-26-4	No intentional use	Sum = 100 mg/kg	
Nonylphenol (NP)	Multiple, including 25154-52-3 104-40-5 84852-15-3 11066-49-2	No intentional use	Sum = 100 mg/kg	
Octylphenoethoxylates (OPEO)	Multiple, including 68987-90-6 9036-19-5 9002-93-1	No intentional use	Sum = 250 mg/kg	ISO 21084
Nonylphenoethoxylates (NPEO)	Multiple, including 9016-45-9 26027-38-3 37205-87-1 68412-54-4 127087-87-0	No intentional use	Sum = 250 mg/kg	
<b>2. PHTHALATES</b>				
Butyl benzyl Phthalate (BBP) <sup>1</sup>	85-68-7	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
Di-n-butyl Phthalate (DBP) <sup>1</sup>	84-74-2	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
Bis(2-ethylhexyl) Phthalate (DEHP) <sup>1</sup>	117-81-7	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	GC-MS
Di-n-octyl Phthalate (DNOP) <sup>1</sup>	117-84-0	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	

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		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
Di-iso-nonyl Phthalate (DINP) <sup>1</sup>	68515-48-0	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
Di-iso-decyl Phthalate (DIDP) <sup>1</sup>	26761-40-0	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
Diethyl Phthalate (DEP) <sup>1</sup>	84-66-2	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
Di-n-propyl Phthalate (DPRP) <sup>1</sup>	131-16-8	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
Di-iso-butyl Phthalate (DIBP) <sup>1</sup>	84-69-5	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
Di-cyclohexyl Phthalate (DCHP) <sup>1</sup>	84-61-7	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
Di-n-hexyl phthalate (DnHP) <sup>1</sup>	84-75-3	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	GC-MS
D-inonyl Phthalate (DNP) <sup>1</sup>	84-76-4	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
Di-iso-octyl Phthalate (DIOP) <sup>1</sup>	27554-26-3	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
Bis(2-methoxyethyl)phthalate (DMEP) <sup>1</sup>	117-82-8	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
1,2-Benzenedicarboxylic acid, di-C7-11- branched and linear alkyl esters (DHNUP) <sup>1</sup>	68515-42-4	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear (DIHP) <sup>1</sup>	68515-50-4	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	

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		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
1,2-Benzenedicarboxylic acid, dipentyl-ester, branched and linear	84777-06-0	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	GC-MS
Diisohexyl phthalate	71850-09-4	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
n-Pentyl-isopentyl phthalate	776297-69-9	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
1,2-benzenedicarboxylic acid, di- C6-8-branched alkyl esters, C7-rich) (DIHP) <sup>1</sup>	71888-89-6	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
Di-n-pentylphthalates (DNPP) <sup>1</sup>	131-18-0	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
Di-iso-pentylphthalates (DIPP) <sup>1</sup>	605-50-5	No intentional use	Sum of substances <sup>1</sup> : 250 mg/kg	
<b>3. FLAME RETARDANTS</b>				
Dibromo biphenyls (DiBB)	13029-09-9, 92-86-4, 59080- 32-9, various	No intentional use	250 mg/kg	GC-MS, LC_MS
Trimethyl phosphate	512-56-1	No intentional use	250 mg/kg	
Octabromo biphenyl (OctaBB)	27858-07-7, 61288-13-9, various	No intentional use	250 mg/kg	
Nonabromo biphenyl (NonaBB)	27753-52-2, 69278-62-2 119264-62-9, 119264-63-0,	No intentional use	250 mg/kg	
Decabromo biphenyl (DecaBB)	13654-09-6	No intentional use	250 mg/kg	
Tris(2,3-Dibromopropyl)-Phosphate (TRIS)	126-72-7	No intentional use	250 mg/kg	

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		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
Monobromo diphenyl ether (MonoBDE)	Multiple	No intentional use	250 mg/kg	
Tribromo diphenyl ethers (TriBDE)	Multiple	No intentional use	250 mg/kg	
Tetrabromo diphenyl ethers (TetraBDE)	40088-47-9	No intentional use	250 mg/kg	
Pentabromo diphenyl ether (PentaBDE)	32534-81-9	No intentional use	250 mg/kg	
Hexabromo diphenyl ether (HexaBDE)	36483-60-0	No intentional use	250 mg/kg	
Heptabromo diphenyl ether (HeptaBDE)	68928-80-3	No intentional use	250 mg/kg	
Octabromo diphenyl ether (OctaBDE)	32536-52-0	No intentional use	250 mg/kg	GC-MS, LC_MS
Nonabromo diphenyl ether (NonaBDE)	63936-56-1	No intentional use	250 mg/kg	
Decabromo diphenyl ether (DecaBDE)	1163-19-5	No intentional use	250 mg/kg	
Tetrabromo-bisphenol A (TBBPA)	79-94-7	No intentional use	250 mg/kg	
Bis(2,3-dibromopropyl)phosphate (BDBPP)	5412-25-9	No intentional use	250 mg/kg	
Hexabromocyclododecane (HBCDD)	3194-55-6	No intentional use	250 mg/kg	
2,2-bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	No intentional use	250 mg/kg	

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		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
Boric acid	10043-35-3, 11113-50-1	No intentional use	250 mg/kg	GC-MS, LC_MS
Diboron trioxide	1303-86-2	No intentional use	250 mg/kg	
Disodium octaborate	12008-41-2	No intentional use	250 mg/kg	
Disodium tetraborate, anhydrous	1303-96-4, 1330-43-4	No intentional use	250 mg/kg	
Tetraboron disodium heptaoxide, hydrate	12267-73-1	No intentional use	250 mg/kg	
Tetrabromobisphenol A bis (2,3-dibromopropyl ether)	40088-47-9	No intentional use	250 mg/kg	
Tri-o-cresyl phosphate	78-30-8	No intentional use	250 mg/kg	
Tris (2-chloroethyl) phosphate (TCEP)	115-96-8	No intentional use	250 mg/kg	
Tris(1-aziridinyl)phosphine oxide) (TEPA)	545-55-1	No intentional use	250 mg/kg	
Tris(2-chloro-1-metylethyl) phosphate (TCPP)	13674-84-5	No intentional use	250 mg/kg	
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	No intentional use	250 mg/kg	
Trixylyl phosphate (TXP)	25155-23-1	No intentional use	250 mg/kg	

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		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
<b>4. AZO DYES</b>				
4-Aminobiphenyl	92-67-1	No intentional use	150 mg/kg	
Benzidine	92-87-5	No intentional use	150 mg/kg	
4-Chloro-o-toluidine	95-69-2	No intentional use	150 mg/kg	
2-Naphtylamine	91-59-8	No intentional use	150 mg/kg	
o-Aminoazotoluene	97-56-3	No intentional use	150 mg/kg	
5-Nitro-o-toluidine	99-55-8	No intentional use	150 mg/kg	
4-Chloroaniline	106-47-8	No intentional use	150 mg/kg	ISO 14362
2,4-Diaminoanisole	615-05-4	No intentional use	150 mg/kg	
4,4'-Diaminodiphenylmethane	101-77-9	No intentional use	150 mg/kg	
3,3'-Dichlorobenzidine	91-94-1	No intentional use	150 mg/kg	
3,3'-Dimethoxybenzidine	119-90-4	No intentional use	150 mg/kg	
3,3'-Dimethylbenzidine	119-93-7	No intentional use	150 mg/kg	
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	No intentional use	150 mg/kg	

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		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
p-Cresidine	120-71-8	No intentional use	150 mg/kg	
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4	No intentional use	150 mg/kg	
2,4,5-Trimethylaniline	137-17-7	No intentional use	150 mg/kg	
4,4'-Oxydianiline	101-80-4	No intentional use	150 mg/kg	
4,4'-Thiodianiline	139-65-1	No intentional use	150 mg/kg	
o-Toluidine	95-53-4	No intentional use	150 mg/kg	
2,4-Toluenediamine	95-80-7	No intentional use	150 mg/kg	ISO 14362
2,4,5-Trimethylaniline	137-17-7	No intentional use	150 mg/kg	
o-Anisidine	90-04-0	No intentional use	150 mg/kg	
Aminoazobenzene	60-09-3	No intentional use	150 mg/kg	
2,4-Xylidine	95-68-1	No intentional use	150 mg/kg	
2,6-Xylidine	87-62-7	No intentional use	150 mg/kg	
4-chloro-o-toluidinium chloride	3165-93-3	No intentional use	150 mg/kg	



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		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
2-Naphthylammoniumacetate	553-00-4	No intentional use	150 mg/kg	
4-methoxy-m-phenylene diammonium sulphate; 2,4- diaminoanisole sulphate	39156-41-7	No intentional use	150 mg/kg	ISO 14362
2,4,5-trimethylaniline hydrochloride	21436-97-5	No intentional use	150 mg/kg	
<b>4C. DISPERSE &amp; CARCINOGENIC DYES</b>				
Acid Red 26	3761-53-3	No intentional use	250 mg/kg	
Basic Red 9	569-61-9	No intentional use	250 mg/kg	
Basic Violet 14	632-99-5	No intentional use	250 mg/kg	
Direct Blue 6	2602-46-2	No intentional use	250 mg/kg	
Direct Red 28	573-58-0	No intentional use	250 mg/kg	DIN 54231
Direct Black 38	1937-37-7	No intentional use	250 mg/kg	
Direct Blue 6	2602-46-2	No intentional use	250 mg/kg	
Direct Red 28	573-58-0	No intentional use	250 mg/kg	
Disperse Orange 11	82-28-0	No intentional use	250 mg/kg	

PARAMETER	CAS NUMBRER	REQUIREMENTS		GENERAL TECHNIQUES FOR ANALYSING CHEMICALS
		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	No intentional use	250 mg/kg	
Basic Green 4 (malachite green chloride)	569-64-2	No intentional use	250 mg/kg	
Basic Green 4 (malachite green oxalate)	2437-29-8	No intentional use	250 mg/kg	
Basic Green 4 (malachite green)	10309-95-2	No intentional use	250 mg/kg	
Basic Green 4 leuco base	129-73-7	No intentional use	250 mg/kg	
Basic Red 9	569-61-9	No intentional use	250 mg/kg	
Basic Violet 14	632-99-5	No intentional use	250 mg/kg	DIN 54231
Disperse Blue 1	2475-45-8	No intentional use	250 mg/kg	
Disperse Blue 3	2475-46-9	No intentional use	250 mg/kg	
Disperse Blue 7	3179-90-6	No intentional use	250 mg/kg	
Disperse Blue 26	3860-63-7	No intentional use	250 mg/kg	
Disperse Blue 35	12222-75-2 56524-76-6	No intentional use	250 mg/kg	
Disperse Blue 102	12222-97-8	No intentional use	250 mg/kg	

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		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
Disperse Blue 106	12223-01-7	No intentional use	250 mg/kg	DIN 54231
Disperse Blue 124	61951-51-7	No intentional use	250 mg/kg	
Disperse Brown 1	23355-64-8	No intentional use	250 mg/kg	
Disperse Orange 1	2581-69-3	No intentional use	250 mg/kg	
Disperse Orange 3	730-40-5	No intentional use	250 mg/kg	
Disperse Orange 37/59/76	13301-61-6	No intentional use	250 mg/kg	
Disperse Red 1	2872-52-8	No intentional use	250 mg/kg	
Disperse Red 11	2872-48-2	No intentional use	250 mg/kg	
Disperse Red 17	3179-89-3	No intentional use	250 mg/kg	
Disperse Yellow 1	119-15-3	No intentional use	250 mg/kg	
Disperse Yellow 3	2832-40-8	No intentional use	250 mg/kg	
Disperse Yellow 9	6373-73-5	No intentional use	250 mg/kg	
Disperse Yellow 39	12236-29-2	No intentional use	250 mg/kg	
Disperse Yellow 49	54824-37-2	No intentional use	250 mg/kg	

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		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
Basic Violet 3 with >0.1% of Michler's Ketone	548-62-9	No intentional use	250 mg/kg	DIN 54231
Acid Violet 49	1694-09-3	No intentional use	250 mg/kg	
Acid red 26	3761-53-3	No intentional use	250 mg/kg	
<b>5. ORGANOTIN COMPOUNDS</b>				
Dibutyltin, DBT	Multiple, including 683-18-1	No intentional use	20 mg/kg 100 mg/kg for PU based	Solvent extraction, GC MS, ISO TS 16179
Mono- and tri-butyltin derivates	Multiple, including 1118-46-3	No intentional use	5 mg/kg	
Mono-,di- and tri- methyltin derivates	Multiple, including 993-16-8, 753-73-1, 1066-45-1	No intentional use	5 mg/kg	
Mono-, di- and tri- octyltin derivates	Multiple, including 391-25-6, 3542-367, 2587-76-0	No intentional use	5 mg/kg	
Mono-, di- and tri- phenyltin derivates	Multiple, including 1124-19-2, 1135-99-5, 639-58-7	No intentional use	5 mg/kg	
Dipropyltin compounds, DPT	Multiple, including 867-36-7	No intentional use	5 mg/kg	
Tetraethyltin compounds (TeET)	Multiple, including 597,64-8	No intentional use	1 mg/kg	
Tricyclohexyltin, TCyHT	Multiple including 3091-32-5	No intentional use	1 mg/kg	
Tripropyltin, TPT	Multiple including 2279-76-7	No intentional use	1 mg/kg	
Tetraethyltin compounds (TeBT)	Multiple, including 1461-25-2	No intentional use	1 mg/kg	

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		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
Tetraoctyltin, TeOT	Multiple including 3590-84-9	No intentional use	1 mg/kg	Solvent extraction, GC MS, ISO TS 16179
<b>6. PERFLUORINATED AND POLYFLUORINATED CHEMICALS (PFAS)</b>				
Perfluorooctanoic acid (PFOA) and related substances	335-67-1, 3825-26-1	No intentional use	0.025 mg/kg Related substances = 1 mg/kg	LC-MS or GC-MS
Perfluorooctane sulfonate (PFOS) and related substances	1763-23-1, 2795-39-3	No intentional use	Sum = 2 mg/kg	
Perfluorobutane sulfonic acid (PFBS)	375-73-5	No intentional use	1 mg/Kg	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	No intentional use	1 mg/Kg	
Perfluorodecane sulfonic acid (PFDS)	335-77-3	No intentional use	1 mg/Kg	
Perfluorobutanoic acid (PFBA)	375-22-4	No intentional use	1 mg/Kg	
Perfluorohexanoic acid (PFHxA) and related substances	Multiple, including 307-24-4	No intentional use	0.025 mg/kg Related substances = 1 mg/kg	
Perfluorodecanoic acid (PFDA)	335-76-2	No intentional use	1 mg/Kg	
4:2 Fluorotelomer alcohols (4:2 FTOH)	2043-47-2	No intentional use	1 mg/Kg	

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		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
6:2 Fluorotelomer alcohols (6:2 FTOH)	647-42-7	No intentional use	1 mg/Kg	LC-MS or GC-MS
8:2 Fluorotelomer alcohols (8:2 FTOH)	678-39-7	No intentional use	1 mg/Kg	
10:2 Fluorotelomer alcohols (10:2 FTOH)	865-86-1	No intentional use	1 mg/Kg	
<b>7. CHLOROBENZENES AND CHLOROTOLUENES</b>				
1,2-Dichlorobenzene	95-50-1	No intentional use	500 mg/kg	GC-MS
Dichlorobenzene	various	No intentional use		
Chlorobenzene	108-90-7	No intentional use		
1,3-Dichlorobenzene	541-73-1	No intentional use		
1,4-Dichlorobenzene	106-46-7	No intentional use		
Trichlorobenzene	various	No intentional use	Sum of substances <sup>2</sup> : 200 mg/kg Each: 10 mg/kg	
1,2,3-Trichlorobenzene	87-61-6	No intentional use		
1,2,4-Trichlorobenzene	120-82-1	No intentional use		
1,3,5-Trichlorobenzene	108-70-3	No intentional use		
Tetrachlorobenzene	various	No intentional use		

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		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
1,2,3,4-Tetrachlorobenzene	634-66-2	No intentional use		
1,2,3,5-Tetrachlorobenzene	634-90-2	No intentional use		
1,2,4,5-Tetrachlorobenzene	95-94-3	No intentional use		
Pentachlorobenzene	608-93-5	No intentional use		
Hexachlorobenzene	118-74-1	No intentional use		
Chlorotoluene	various	No intentional use		
2-Chlorotoluene	95-49-8	No intentional use	Sum of substances2 : 200 mg/kg Each: 10 mg/kg	GC-MS
3-Chlorotoluene	108-41-8	No intentional use		
4-Chlorotoluene	106-43-4	No intentional use		
Dichlorotoluene	various	No intentional use		
2,3-Dichlorotoluene	32768-54-0	No intentional use		
2,4-Dichlorotoluene	95-73-8	No intentional use		
2,5-Dichlorotoluene	19398-61-9	No intentional use		

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2,6-Dichlorotoluen	118-69-4	No intentional use		
3,4-Dichlorotoluene <sup>2</sup>	95-75-0	No intentional use		
3,5-dichlorotoluene	25186-47-4	No intentional use		
Trichlorotoluene <sup>2</sup>	various	No intentional use		
2,3,6-Trichlorotoluene <sup>2</sup>	2077-46-5	No intentional use		
2,4,5-Trichlorotoluene <sup>2</sup>	6639-30-1	No intentional use		
2,3,4-trichlorotoluene <sup>2</sup>	7359-72-0	No intentional use	Sum of substances <sup>2</sup> : 200 mg/kg Each: 10 mg/kg	GC-MS
2,4,6-trichlorotoluene <sup>2</sup>	23749-65-7	No intentional use		
3,4,5-trichlorotoluene	21472-86-6	No intentional use		
Tetrachlorotoluene <sup>2</sup>	various	No intentional use		
2,3,4,5-tetrachlorotoluene <sup>2</sup>	76057-12-0	No intentional use		
2,3,5,6-tetrachlorotoluene <sup>2</sup>	1006-31-1	No intentional use		
2,3,4,6-tetrachlorotoluene <sup>2</sup>	875-40-1	No intentional use		



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Pentachlorotoluene	877-11-2	No intentional use	Sum of substances <sup>2</sup> : 200 mg/kg Each: 10 mg/kg	GC-MS
<b>8A. HALOGENATED SOLVENTS</b>				
1,2-Dichloroethane	107-06-2	No intentional use	5 mg/kg	GC-MS
Methylene chloride	75-09-2	No intentional use	5 mg/kg	
Trichloroethylene	79-01-6	No intentional use	40 mg/kg	
Tetrachloroethylene	127-18-4	No intentional use	5 mg/kg	
Benzylchloride	100-44-7	No intentional use	50 mg/kg and 100 mg/kg for dyes	
<b>8B. ORGANIC SOLVENTS</b>				
Benzene	71-43-2	No intentional use	50 mg/kg	GC-MS
Xylene	1330-20-7	No intentional use	500 mg/kg	
o-Xylene	95-47-6	No intentional use	500mg/kg	
m-Xylene	108-38-3	No intentional use	500 mg/kg	
p-Xylene	106-42-3	No intentional use	500 mg/kg	

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Cresol	1319-77-3	No intentional use	500 mg/kg	GC-MS
o-cresol	95-48-7	No intentional use	500 mg/kg	
m-cresol	108-39-4	No intentional use	500mg/kg	
p-cresol	106-44-5	No intentional use	500 mg/kg	
N,N-dimethylacetamide (DMAC)	127-19-5	No intentional use	1000 mg/kg	
N,N-Dimehylformamide (DMFa)	68-12-2	No intentional use	1000 mg/kg	
N-Ethyl-2-pyrrolidone (NEP)	2687-91-4	No intentional use	1000 mg/kg	
N-Methyl-2-Pyrrolidone (NMP)	872-50-4	No intentional use	1000 mg/kg	
Toluene	108-88-3	No intentional use	500 mg/kg	
<b>9. CHLORINATED PHENOLS / OPP</b>				
Pentachlorophenol (PCP)	87-86-5	No intentional use	5 mg/kg	GC-MS EN ISO 17070
2,3,4,5-Tetrachlorophenol <sup>2</sup>	4901-51-3	No intentional use	Sum of <sup>2</sup> : 15 mg/kg	
2,3,4,6-Tetrachlorophenol <sup>2</sup>	58-90-2	No intentional use		

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2,3,5,6-Tetrachlorophenol <sup>2</sup>	935-95-5	No intentional use		
2,3,4-Trichlorophenol <sup>1</sup>	15950-66-0	No intentional use		
2,3,5-Trichlorophenol <sup>1</sup>	933-78-8	No intentional use		
2,3,6-Trichlorophenol <sup>1</sup>	933-75-5	No intentional use		
2,4,5-Trichlorophenol <sup>1</sup>	95-95-4	No intentional use		
2,4,6-Trichlorophenol <sup>1</sup>	88-06-2	No intentional use		
3,4,5-Trichlorophenol <sup>1</sup>	609-19-8	No intentional use	Sum of <sup>2</sup> : 15 mg/kg	GC-MS EN ISO 17070
2,3-Dichlorophenol <sup>3</sup>	576-24-9	No intentional use		
2,4-Dichlorophenol <sup>3</sup>	120-83-2	No intentional use		
2,5-Dichlorophenol <sup>3</sup>	583-78-8	No intentional use		
2,6-Dichlorophenol <sup>3</sup>	87-65-0	No intentional use		
3,4-Dichlorophenol <sup>3</sup>	95-77-2	No intentional use		
3,5-Dichlorophenol <sup>3</sup>	591-35-5	No intentional use		

PARAMETER	CAS NUMBRER	REQUIREMENTS		GENERAL TECHNIQUES FOR ANALYSING CHEMICALS
		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
2-Chlorophenol <sup>4</sup>	935-95-5	No intentional use	Sum of <sup>2</sup> : 15 mg/kg	GC-MS EN ISO 170700
3-Chlorophenol <sup>4</sup>	15950-66-0	No intentional use		
4-Chlorophenol <sup>4</sup>	933-78-8	No intentional use		
<b>10. CHLORINATED PARAFFINS (SCCP / MCCP)</b>				
Short Chain Chlorinated Paraffins (SCCP) with C10 –C13	85535-84-8	No intentional use	250 mg/kg	ISO 22818:2021
Medium Chain Chlorinated Paraffins (MCCP) with C14 – C17	85535-85-9	No intentional use	250 mg/kg	
<b>11A. HEAVY METALS</b>				
Total Cadmium, Cd	7440-43-9	No intentional use	Others: 20 mg/kg Pigment: 50 mg/kg	ICP-OES, AAS
Total Lead, Pb	7439-92-1	No intentional use	100 mg/kg	
Total Mercury, Hg	7439-97-6	No intentional use	Others: 4 mg/kg Pigment: 25 mg/kg	
Total Cobalt, Co	7440-48-4	No intentional use	500 mg/kg	
Total Nickel, Ni	7440-02-0	No intentional use	250 mg/kg	

PARAMETER	CAS NUMBRER	REQUIREMENTS		GENERAL TECHNIQUES FOR ANALYSING CHEMICALS
		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
Total Antimony, Sb	7440-36-0	No intentional use	Dye: 50 mg/kg Pigment: 250 mg/kg	ICP-OES, AAS
Total Arsenic, As	7440-38-2	No intentional use	50 mg/kg	
Total Copper, Cu	7440-50-8	No intentional use	250 mg/kg	
Total Chromium, Cr	7440-47-3	No intentional use	100 mg/kg	
Total Silver (Ag)	7440-22-4	No intentional use	100 mg/kg	
Chromium, hexavalent, Cr(VI)	18540-29-9	No intentional use	10 mg/kg	
Total Barium	7440-39-3	No intentional use	100 mg/kg	
Total Selenium	7782-49-2	No intentional use	Dye: 20 mg/kg Pigment: 100 mg/kg	
Total Tin	7440-31-5	No intentional use	250 mg/kg	
<b>12. GLYCOLS</b>				
Bis(2-methoxyethyl)-ether	111-96-6	No intentional use	50 mg/kg	HPLC, LC-MS
2-methoxyethanol	109-86-4	No intentional use	50 mg/kg	
2-methoxyethylacetate	110-49-6	No intentional use	50 mg/kg	
Ethylene glycol dimethyl ether	110-71-4	No intentional use	50 mg/kg	

PARAMETER	CAS NUMBRER	REQUIREMENTS		GENERAL TECHNIQUES FOR ANALYSING CHEMICALS
		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
2-ethoxyethanol	110-80-5	No intentional use	50 mg/kg	HPLC, LC-MS
2-ethoxyethyl acetate	111-15-9	No intentional use	50 mg/kg	
2-methoxypropylacetate	70657-70-4	No intentional use	50 mg/kg	
Triethylene glycol dimethyl ether	112-49-2	No intentional use	Textile: 50 mg/kg Leather: 1000 mg/kg	
2-Methoxypropanol	1589-47-5	No intentional use	50 mg/kg	
<b>13. POLYCYCLIC AROMATIC HYDROCARBONS (PAHS)</b>				
Naphthalene <sup>3</sup>	91-20-3	No intentional use	Textile: Sum of substances <sup>3</sup> : 200 mg/kg Leather: 300 mg/kg	GC-MS
Acenaphthylene <sup>3</sup>	208-96-8	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	
Acenaphthene <sup>3</sup>	83-32-9	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	
Fluorene <sup>3</sup>	86-73-7	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	
Phenanthrene <sup>3</sup>	85-01-8	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	
Anthracene <sup>3</sup>	120-12-7	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	
Fluoranthene <sup>3</sup>	206-44-0	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	
Pyrene <sup>3</sup>	129-00-0	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	

PARAMETER	CAS NUMBRER	REQUIREMENTS		GENERAL TECHNIQUES FOR ANALYSING CHEMICALS
		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
Benzo[a]anthracene <sup>3</sup>	56-55-3	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	GC-MS
Chrysene <sup>3</sup>	218-01-9	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	
Benzo[a]pyrene	50-32-8	No intentional use	20 mg/kg	
Indeno[1,2,3-cd]pyrene <sup>3</sup>	193-39-5	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	
Dibenzo[a,h]anthracene <sup>3</sup>	53-70-3	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	
Benzo[ghi]perylene <sup>3</sup>	191-24-2	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	
Benzo[b]fluoranthene <sup>3</sup>	205-99-2	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	
Benzo[k]fluoranthene <sup>3</sup>	207-08-9	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	
Benzo[e]pyrene <sup>3</sup>	192-97-2	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	
Benzo[j]fluoranthene <sup>3</sup>	205-82-3	No intentional use	Sum of substances <sup>3</sup> : 200 mg/kg	
<b>14. PESTICIDES</b>				
Permethrin	52645-53-1	No intentional use	250 mg/kg	Solvent extraction LC MS, LC DAD, GC MS, LC MS/MS
Triclosan	3380-34-5	No intentional use	250 mg/kg	
Dimethylfumarate (DMFU)	624-49-4	No intentional use	10 mg/kg	ISO 16186

PARAMETER	CAS NUMBRER	REQUIREMENTS		GENERAL TECHNIQUES FOR ANALYSING CHEMICALS
		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
O-Phenylphenol (+salts)	90-43-7	No intentional use	5000 mg/kg	EN 17134
Borate, zinc salt	12767-90-7	No intentional use	250 mg/kg	ICP
Thiourea	62-56-6	No intentional use	1000 mg/kg	LS MS/MS LC-DAD MS
Silica (particles of respirable size)	14464-46-1	No intentional use	No use of Sand Blasting	-
AEEA [2-(2-aminoethylamino)ethanol]	111-41-1	No intentional use	100 mg/kg	LC MS/MS or GC/MS
<b>15. OTHERS</b>				
Bisphenol-A	80-05-7	No intentional use	100 mg/kg	Solvent extraction, LC MS/MS, GC MS
(Free) Aniline	62-53-3	No intentional use	Indigo 2000 mg/kg Other dyes 500 mg/kg	ISO 14362
Quinoline	91-22-5	No intentional use	1000 mg/kg	DIN 54231
2-(2-Aminoethylamino)ethanol (AEEA)	111-41-1	No intentional use	100 mg/kg	LC MS/MS or GC-MS
Borate, zinc salt	1332-07-6	No intentional use	100 mg/kg	ICP
D4 (Decamethylcyclotetrasiloxane)	556-67-2	No intentional use	1000 mg/kg	GC/MS



PARAMETER	CAS NUMBRER	REQUIREMENTS		GENERAL TECHNIQUES FOR ANALYSING CHEMICALS
		IN MANUFACTURING	IN CHEMICAL FORMULATIONS	
D5 (Decamethylcyclopentasiloxane)	541-02-6	No intentional use	1000 mg/kg	GC/MS
D5 (Decamethylcyclohexasiloxane)	540-97-6	No intentional use	1000 mg/kg	GC/MS
Diazene-1,2-dicarboxamide [C,C'-azodi (formamide)] (ADCA)	123-77-3	No intentional use	1000 mg/kg	LC/MS, LC/DAD
Perboric acid, sodium salt	Multiple including 11138-47-9 15120-21-5 7632-04-04 16940-66-2 13517-20-9 125022-34-6 90568-23-3	No intentional use	1000 mg/kg	ICP
Titanium Dioxide	13463-67-7	No intentional use	1000 mg/kg	LC MS/MS, LC-DAD MS
<b>16. UV ABSORBERS</b>				
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV 320)	3846-71-7	No intentional use	1000 mg/kg	
2,4-Di-tert-butyl-6-(5-c chloroben-zotriazole-2-yl) phenol (UV-327)	3864-99-1	No intentional use	1000 mg/kg	Solvent extraction, LC MS/MS, GC MS
2-(2H-benzotriazol.2-yl)-4-(tert-butyl)-6(sec-butyl) phenol (UV 350)	36437-37-3	No intentional use	1000 mg/kg	
2-(2H-benzotriazol-2-yl)-2,4-ditert-pentylphenol (UV328)	25973-55-1	No intentional use	1000 mg/kg	

**MANGO**