

CTL® GmbH | Chemical-Technological Laboratory Krackser Straße 12 | 33659 Bielefeld | Germany

Beautiful face forever LTD Mrs Mikhaleva Narodnaya Street 12 115172 Moscow RUSSIA

#### Marion Heyde

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[Order date] 30.01.2018

[Date received] 08.05.2018

[Service date] 15.06.2018

CTL® no 382190

#### **Test results**



[Contact person] Mrs Mikhaleva not accredited tests are labelled with \*

[Material] Pigment samples for lips, eyebrows and eyelids

[Colours] See following pages

[Order] Testing according to CoE Resolution ResAP(2008)1

on requirements and criteria for the safety of tattoos and permanent make-up

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[DE] Die Prüfergebnisse beziehen sich ausschließlich auf die Prüfgegenstände. Ohne schriftliche Genehmigung darf der Prüfbericht nicht auszugsweise vervielfältigt werden.

[GB] The denoted results are only valid for the tested sample. Without our written consent no single part of this report is allowed to be forwarded to third parties.

[F] Le resultat des examens se réfère uniquement aux objets téstes. Sans autorisation écrite, le résultat des examens ne doit pas être partiellement reproduit.

[NL] De testresultaten hebben uitsluitend betrekking op de testobjecten. Zonder schriftelijke toestemming mag het testrapport niet in uittreksel worden vermenigvuldigd.

[IBAN]

[SWIFT/BIC]



CTL® no 382190/1-5

[Material] Pigment samples

[Colour] See table

CTL series no	Colours
1	Strawberry
2	Apple blossom
3	Dark chocolate
4	Arabica
5	Coffee



CTL® no 382190/1

[Material] Pigment sample

[Colour] Strawberry

						passe
Azo-dyestuffs, Part 1a nvestigation of aromatic amin sensitising properties accordi Methods acc. to § 64 LFGB 8 Detection limit: 1 ppm; limit: a	ing to CoE 32.02-2,3,4	4,9	toxic and	not detectable		
Biphenyl-4-arylamine	-	4-Methoxy-m- phenylenediamine	-	4,4'-Methylenebis-(2- chloroaniline)	-	
Benzidine	-	4,4'-Methylenedianiline	-	4-Methyl-m- phenylenediamine	-	
4-Chloro-o-toluidine	-	3,3'-Dichlorobenzidine	-	o-Anisidine	-	yes
2-Naphthylamine	-	3,3'-Dimethoxybenzidine	-	4-Aminoazobenzene	-	
o-Aminoazotoluene	-	3,3'-Dimethylbenzidine	-	6-Amino-2- ethoxynaphthaline	-	
5-Nitro-o-toluidine	-	4,4'-Methylenedi-o-toluidine	-	4-Amino-3-fluorophenol	-	
4-Chloroaniline	-	6-Methoxy-m-toluidine	-			
Azo-dyestuffs, Part 1b Investigation of carcinogens classified in categories 1, 2 and 3 by the European Commission and mentioned in the Council Directive 1967/548/EEC of 27 June 1967 according to CoE Resolution ResAP(2008)1 Methods acc. to § 64 LFGB 82.02-2,3,4,9 Detection limit: 1 ppm					yes	
		2.4.5-Trimethylaniline	_	2 6-Xvlidine	_	yes
4,4'-Oxydianiline	-	2,4,5-Trimethylaniline	-	2,6-Xylidine	-	yes
	-	2,4,5-Trimethylaniline Para-phenylenediamine 2,4-Xylidine	-	2,6-Xylidine	-	yes
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Dyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/M	- - NP(2008)1	Para-phenylenediamine 2,4-Xylidine		2,6-Xylidine not detectable	-	yes
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/M	- - NP(2008)1	Para-phenylenediamine 2,4-Xylidine			-	yes
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/M Detection limit: 5 mg/L	- NP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine is acc. to DIN 54231	-	not detectable		yes
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/M Detection limit: 5 mg/L  Acid Green 16	- NP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine is acc. to DIN 54231 Disperse Blue 1	-	not detectable Pigment Red 53		yes
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Dyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26	- NP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106	-	not detectable  Pigment Red 53  Pigment Violet 3		yes
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17	- NP(2008)1 MS-analys - -	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124		not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39	-	
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Dyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49	- NP(2008)1 MS-analys - -	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 3	- - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35	-	yes
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49  Acid Yellow 36	- NP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 3  Disperse Blue 35	- - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7	-	
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49  Acid Yellow 36  Basic Blue 7	AP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 3  Disperse Blue 35  Disperse Orange 3	- - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7  Solvent Red 24		
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49  Acid Yellow 36  Basic Blue 7  Basic Green 1	- NP(2008)1 MS-analys - - - - -	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1 Disperse Blue 106 Disperse Blue 124 Disperse Blue 3 Disperse Blue 35 Disperse Orange 3 Disperse Orange 37	- - - - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7  Solvent Red 24  Solvent Red 49		
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16 Acid Red 26 Acid Violet 17 Acid Violet 49 Acid Yellow 36 Basic Blue 7 Basic Green 1 Basic Red 1		Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 3  Disperse Blue 35  Disperse Orange 3  Disperse Orange 37  Disperse Red 1	- - - - - - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7  Solvent Red 24  Solvent Red 49  Solvent Violet 9		
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Dyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49  Acid Yellow 36  Basic Blue 7  Basic Green 1  Basic Red 1  Basic Red 9	AP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 3  Disperse Blue 35  Disperse Orange 3  Disperse Orange 37  Disperse Red 1  Disperse Red 17	- - - - - - - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7  Solvent Red 24  Solvent Red 49  Solvent Violet 9  Solvent Yellow 1		



CTL® no 382190/1

[Material] Pigment sample

[Colour] Strawberry

Limit			too Inks: Anal	leavy metals, Part 3 Acc. to CoE Resolution Resolethod: Prior, G. (2014). Tat Legislation. Berlin: epubli. C
≤ 2 ppm		Arsenic (As)		
≤ 50 ppm		Barium (Ba)		
≤ 0.2 ppm		Cadmium (Cd)		
≤ 25 ppm		Cobalt (Co)		
≤ 0.2 ppm		Chromium (Cr), VI		
≤ 25 ppm		Copper (Cu), soluble		
≤ 0.2 ppm		Mercury (Hg)		
as technically achievable	As low a	Nickel (Ni)		
≤ 2 ppm		Lead (Pb)		
≤ 2 ppm		Selenium (Se)		
≤ 2 ppm		Antimony (Sb)		
≤ 50 ppm		Tin (Sn)		
≤ 50 ppm		Zinc (Zn)		
				PΔH and RaP Part 4
acc. to CoE Resolution ResAP	a-pyrene ac	saP 0.5 ppb	008-01 n as total, Ba	PAH and BaP, Part 4  nvestigation of 16 compoun  Methods acc. to EPA, ZEK 2  Detection limit: PAH 0.05 pp.  imit: PAH ≤ 0.5 ppm as total
	a-pyrene ad	saP 0.5 ppb	008-01 n as total, Ba	nvestigation of 16 compoun Methods acc. to EPA, ZEK 2 Detection limit: PAH 0.05 pp
acc. to CoE Resolution ResAP	, ,	SaP 0.5 ppb	008-01 m as total, Ba al, BaP ≤ 5 pp	nvestigation of 16 compoun Methods acc. to EPA, ZEK 2 Detection limit: PAH 0.05 pp Limit: PAH ≤ 0.5 ppm as total
Dibenzo(a,h)anthracene	-	ppb Fluoranthene	008-01 m as total, Ba al, BaP ≤ 5 pp	nvestigation of 16 compoun Methods acc. to EPA, ZEK 2 Detection limit: PAH 0.05 pp imit: PAH ≤ 0.5 ppm as total Naphthalene
Dibenzo(a,h)anthracene	-	Fluoranthene Pyrene	008-01 m as total, Ba al, BaP ≤ 5 pp	nvestigation of 16 compoun Methods acc. to EPA, ZEK 2 Detection limit: PAH 0.05 pp. Limit: PAH ≤ 0.5 ppm as total Naphthalene Acenaphthylene
Dibenzo(a,h)anthracene Indo (1,2,3-cd)pyrene Benzo(g,h,i)perylene	-	Fluoranthene Pyrene Benz(a)anthracene	008-01 m as total, Ba al, BaP ≤ 5 pp	nvestigation of 16 compoun Methods acc. to EPA, ZEK 2 Detection limit: PAH 0.05 pp Limit: PAH ≤ 0.5 ppm as total Naphthalene Acenaphthylene Acenaphthene
	≤ 2 ppm ≤ 50 ppm ≤ 0.2 ppm ≤ 25 ppm ≤ 0.2 ppm ≤ 25 ppm ≤ 25 ppm ≤ 0.2 ppm s technically achievable ≤ 2 ppm ≤ 2 ppm ≤ 2 ppm ≤ 2 ppm ≤ 50 ppm	≤ 2 ppm  ≤ 50 ppm  ≤ 0.2 ppm  ≤ 25 ppm  ≤ 0.2 ppm  ≤ 25 ppm  ≤ 0.2 ppm  As low as technically achievable  ≤ 2 ppm  ≤ 2 ppm	Arsenic (As) ≤ 2 ppm  Barium (Ba) ≤ 50 ppm  Cadmium (Cd) ≤ 0.2 ppm  Cobalt (Co) ≤ 25 ppm  Chromium (Cr), VI ≤ 0.2 ppm  Copper (Cu), soluble ≤ 25 ppm  Mercury (Hg) ≤ 0.2 ppm  Nickel (Ni) As low as technically achievable    Lead (Pb) ≤ 2 ppm  Selenium (Se) ≤ 2 ppm  Antimony (Sb) ≤ 2 ppm  Tin (Sn) ≤ 50 ppm	Arsenic (As)       ≤ 2 ppm         Barium (Ba)       ≤ 50 ppm         Cadmium (Cd)       ≤ 0.2 ppm         Cobalt (Co)       ≤ 25 ppm         Chromium (Cr), VI       ≤ 0.2 ppm         Copper (Cu), soluble       ≤ 25 ppm         Mercury (Hg)       ≤ 0.2 ppm         Nickel (Ni)       As low as technically achievable         Lead (Pb)       ≤ 2 ppm         Selenium (Se)       ≤ 2 ppm         Antimony (Sb)       ≤ 2 ppm         Tin (Sn)       ≤ 50 ppm

Additional information:

Result of heavy metal aluminium, perspiration solution: < 1 ppm

Pigment sample Strawberry: Overall result: passed

caption: LFGB = German Food and Feed Code, - = not detectable

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[Managing director] Kerry-Luise Prior
[Registered office in] Bielefeld
[Register of companies] AG Bielefeld, HRB 35-412

[Phone] [Email] [Homepages]



CTL® no 382190/2

[Material] Pigment sample

[Colour] Apple blossom

						passe
Azo-dyestuffs, Part 1a nvestigation of aromatic amin sensitising properties accordi Methods acc. to § 64 LFGB 8 Detection limit: 1 ppm; limit: a	ing to CoE 32.02-2,3,4	4,9	toxic and	not detectable		
Biphenyl-4-arylamine	-	4-Methoxy-m- phenylenediamine	-	4,4'-Methylenebis-(2- chloroaniline)	-	
Benzidine	-	4,4'-Methylenedianiline	-	4-Methyl-m- phenylenediamine	-	
4-Chloro-o-toluidine	-	3,3'-Dichlorobenzidine	-	o-Anisidine	-	yes
2-Naphthylamine	-	3,3'-Dimethoxybenzidine	-	4-Aminoazobenzene	-	
o-Aminoazotoluene	-	3,3'-Dimethylbenzidine	-	6-Amino-2- ethoxynaphthaline	-	
5-Nitro-o-toluidine	-	4,4'-Methylenedi-o-toluidine	-	4-Amino-3-fluorophenol	-	
4-Chloroaniline	-	6-Methoxy-m-toluidine	-			
Azo-dyestuffs, Part 1b Investigation of carcinogens classified in categories 1, 2 and 3 by the European Commission and mentioned in the Council Directive 1967/548/EEC of 27 June 1967 according to CoE Resolution ResAP(2008)1 Methods acc. to § 64 LFGB 82.02-2,3,4,9 Detection limit: 1 ppm					yes	
		2.4.5-Trimethylaniline	_	2 6-Xvlidine	_	yes
4,4'-Oxydianiline	-	2,4,5-Trimethylaniline	-	2,6-Xylidine	-	yes
	-	2,4,5-Trimethylaniline Para-phenylenediamine 2,4-Xylidine	-	2,6-Xylidine	-	yes
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Dyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/M	- - NP(2008)1	Para-phenylenediamine 2,4-Xylidine		2,6-Xylidine not detectable	-	yes
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/M	- - NP(2008)1	Para-phenylenediamine 2,4-Xylidine			-	yes
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/M Detection limit: 5 mg/L	- NP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine is acc. to DIN 54231	-	not detectable		yes
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/M Detection limit: 5 mg/L  Acid Green 16	- NP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine is acc. to DIN 54231 Disperse Blue 1	-	not detectable Pigment Red 53		yes
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Dyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26	- NP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106	-	not detectable  Pigment Red 53  Pigment Violet 3		yes
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17	- NP(2008)1 MS-analys - -	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124		not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39	-	
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Dyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49	- NP(2008)1 MS-analys - -	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 3	- - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35	-	yes
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49  Acid Yellow 36	- NP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 3  Disperse Blue 35	- - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7	-	
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4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49  Acid Yellow 36  Basic Blue 7  Basic Green 1	- NP(2008)1 MS-analys - - - - -	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1 Disperse Blue 106 Disperse Blue 124 Disperse Blue 3 Disperse Blue 35 Disperse Orange 3 Disperse Orange 37	- - - - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7  Solvent Red 24  Solvent Red 49		
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4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Dyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49  Acid Yellow 36  Basic Blue 7  Basic Green 1  Basic Red 1  Basic Red 9	AP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 3  Disperse Blue 35  Disperse Orange 3  Disperse Orange 37  Disperse Red 1  Disperse Red 17	- - - - - - - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7  Solvent Red 24  Solvent Red 49  Solvent Violet 9  Solvent Yellow 1		



CTL® no 382190/2

[Material] Pigment sample

[Colour] Apple blossom

Limit			too Inks: Anal	leavy metals, Part 3 Acc. to CoE Resolution Resolethod: Prior, G. (2014). Tat Legislation. Berlin: epubli. C
≤ 2 ppm		Arsenic (As)		
≤ 50 ppm		Barium (Ba)		
≤ 0.2 ppm		Cadmium (Cd)		
≤ 25 ppm		Cobalt (Co)		
≤ 0.2 ppm		Chromium (Cr), VI		
≤ 25 ppm		Copper (Cu), soluble		
≤ 0.2 ppm		Mercury (Hg)		
as technically achievable	As low a	Nickel (Ni)		
≤ 2 ppm		Lead (Pb)		
≤ 2 ppm		Selenium (Se)		
≤ 2 ppm		Antimony (Sb)		
≤ 50 ppm		Tin (Sn)		
≤ 50 ppm		Zinc (Zn)		
				PΔH and RaP Part 4
acc. to CoE Resolution ResAP	a-pyrene ac	saP 0.5 ppb	008-01 n as total, Ba	PAH and BaP, Part 4  nvestigation of 16 compoun  Methods acc. to EPA, ZEK 2  Detection limit: PAH 0.05 pp.  imit: PAH ≤ 0.5 ppm as total
	a-pyrene ad	saP 0.5 ppb	008-01 n as total, Ba	nvestigation of 16 compoun Methods acc. to EPA, ZEK 2 Detection limit: PAH 0.05 pp
acc. to CoE Resolution ResAP	, ,	SaP 0.5 ppb	008-01 m as total, Ba al, BaP ≤ 5 pp	nvestigation of 16 compoun Methods acc. to EPA, ZEK 2 Detection limit: PAH 0.05 pp Limit: PAH ≤ 0.5 ppm as total
Dibenzo(a,h)anthracene	-	ppb Fluoranthene	008-01 m as total, Ba al, BaP ≤ 5 pp	nvestigation of 16 compoun Methods acc. to EPA, ZEK 2 Detection limit: PAH 0.05 pp imit: PAH ≤ 0.5 ppm as total Naphthalene
Dibenzo(a,h)anthracene	-	Fluoranthene Pyrene	008-01 m as total, Ba al, BaP ≤ 5 pp	nvestigation of 16 compoun Methods acc. to EPA, ZEK 2 Detection limit: PAH 0.05 pp. Limit: PAH ≤ 0.5 ppm as total Naphthalene Acenaphthylene
Dibenzo(a,h)anthracene Indo (1,2,3-cd)pyrene Benzo(g,h,i)perylene	-	Fluoranthene Pyrene Benz(a)anthracene	008-01 m as total, Ba al, BaP ≤ 5 pp	nvestigation of 16 compoun Methods acc. to EPA, ZEK 2 Detection limit: PAH 0.05 pp Limit: PAH ≤ 0.5 ppm as total Naphthalene Acenaphthylene Acenaphthene
	≤ 2 ppm ≤ 50 ppm ≤ 0.2 ppm ≤ 25 ppm ≤ 0.2 ppm ≤ 25 ppm ≤ 25 ppm ≤ 0.2 ppm s technically achievable ≤ 2 ppm ≤ 2 ppm ≤ 2 ppm ≤ 2 ppm ≤ 50 ppm	≤ 2 ppm  ≤ 50 ppm  ≤ 0.2 ppm  ≤ 25 ppm  ≤ 0.2 ppm  ≤ 25 ppm  ≤ 0.2 ppm  As low as technically achievable  ≤ 2 ppm  ≤ 2 ppm	Arsenic (As) ≤ 2 ppm  Barium (Ba) ≤ 50 ppm  Cadmium (Cd) ≤ 0.2 ppm  Cobalt (Co) ≤ 25 ppm  Chromium (Cr), VI ≤ 0.2 ppm  Copper (Cu), soluble ≤ 25 ppm  Mercury (Hg) ≤ 0.2 ppm  Nickel (Ni) As low as technically achievable    Lead (Pb) ≤ 2 ppm  Selenium (Se) ≤ 2 ppm  Antimony (Sb) ≤ 2 ppm  Tin (Sn) ≤ 50 ppm	Arsenic (As)       ≤ 2 ppm         Barium (Ba)       ≤ 50 ppm         Cadmium (Cd)       ≤ 0.2 ppm         Cobalt (Co)       ≤ 25 ppm         Chromium (Cr), VI       ≤ 0.2 ppm         Copper (Cu), soluble       ≤ 25 ppm         Mercury (Hg)       ≤ 0.2 ppm         Nickel (Ni)       As low as technically achievable         Lead (Pb)       ≤ 2 ppm         Selenium (Se)       ≤ 2 ppm         Antimony (Sb)       ≤ 2 ppm         Tin (Sn)       ≤ 50 ppm

Additional information:

Result of heavy metal aluminium, perspiration solution: < 1 ppm

Pigment sample Apple blossom: Overall result: passed

caption: LFGB = German Food and Feed Code, - = not detectable

6/13

[Address] Krackser Straße 12
33659 Bielefeld, Germany
[Managing director] Kerry-Luise Prior
[Registered office in] Bielefeld
[Register of companies] AG Bielefeld, HRB 35-412

[Phone] [Email] [Homepages]



CTL® no 382190/4

[Material] Pigment sample

[Colour] Arabica

						passe
Azo-dyestuffs, Part 1a nvestigation of aromatic amin sensitising properties accordi Methods acc. to § 64 LFGB 8 Detection limit: 1 ppm; limit: a	ing to CoE 32.02-2,3,4	4,9	toxic and	not detectable		
Biphenyl-4-arylamine	-	4-Methoxy-m- phenylenediamine	-	4,4'-Methylenebis-(2- chloroaniline)	-	
Benzidine	-	4,4'-Methylenedianiline	-	4-Methyl-m- phenylenediamine	-	
4-Chloro-o-toluidine	-	3,3'-Dichlorobenzidine	-	o-Anisidine	-	yes
2-Naphthylamine	-	3,3'-Dimethoxybenzidine	-	4-Aminoazobenzene	-	
o-Aminoazotoluene	-	3,3'-Dimethylbenzidine	-	6-Amino-2- ethoxynaphthaline	-	
5-Nitro-o-toluidine	-	4,4'-Methylenedi-o-toluidine	-	4-Amino-3-fluorophenol	-	
4-Chloroaniline	-	6-Methoxy-m-toluidine	-			
Azo-dyestuffs, Part 1b Investigation of carcinogens classified in categories 1, 2 and 3 by the European Commission and mentioned in the Council Directive 1967/548/EEC of 27 June 1967 according to CoE Resolution ResAP(2008)1 Methods acc. to § 64 LFGB 82.02-2,3,4,9 Detection limit: 1 ppm					yes	
		2.4.5-Trimethylaniline	_	2 6-Xvlidine	_	yes
4,4'-Oxydianiline	-	2,4,5-Trimethylaniline	-	2,6-Xylidine	-	yes
	-	2,4,5-Trimethylaniline Para-phenylenediamine 2,4-Xylidine	-	2,6-Xylidine	-	yes
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Dyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/M	- - NP(2008)1	Para-phenylenediamine 2,4-Xylidine		2,6-Xylidine not detectable	-	yes
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/M	- - NP(2008)1	Para-phenylenediamine 2,4-Xylidine			-	yes
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/M Detection limit: 5 mg/L	- NP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine is acc. to DIN 54231	-	not detectable		yes
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/M Detection limit: 5 mg/L  Acid Green 16	- NP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine is acc. to DIN 54231 Disperse Blue 1	-	not detectable Pigment Red 53		yes
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Dyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26	- NP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106	-	not detectable  Pigment Red 53  Pigment Violet 3		yes
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17	- NP(2008)1 MS-analys - -	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124		not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39	-	
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Dyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49	- NP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 3	- - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35	-	yes
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49  Acid Yellow 36	- NP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 3  Disperse Blue 35	- - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7	-	
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49  Acid Yellow 36  Basic Blue 7	AP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 3  Disperse Blue 35  Disperse Orange 3	- - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7  Solvent Red 24		
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49  Acid Yellow 36  Basic Blue 7  Basic Green 1	- NP(2008)1 MS-analys - - - - -	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1 Disperse Blue 106 Disperse Blue 124 Disperse Blue 3 Disperse Blue 35 Disperse Orange 3 Disperse Orange 37	- - - - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7  Solvent Red 24  Solvent Red 49		
4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16 Acid Red 26 Acid Violet 17 Acid Violet 49 Acid Yellow 36 Basic Blue 7 Basic Green 1 Basic Red 1		Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 3  Disperse Blue 35  Disperse Orange 3  Disperse Orange 37  Disperse Red 1	- - - - - - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7  Solvent Red 24  Solvent Red 49  Solvent Violet 9		
4,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Dyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49  Acid Yellow 36  Basic Blue 7  Basic Green 1  Basic Red 1  Basic Red 9	AP(2008)1 MS-analys	Para-phenylenediamine 2,4-Xylidine  is acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 3  Disperse Blue 35  Disperse Orange 3  Disperse Orange 37  Disperse Red 1  Disperse Red 17	- - - - - - - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7  Solvent Red 24  Solvent Red 49  Solvent Violet 9  Solvent Yellow 1		



CTL® no 382190/4

[Material] Pigment sample

[Colour] Arabica

<b>Heavy metals, Part 3</b> Acc. to CoE Resolution ResA Method: Prior, G. (2014). Tatt Legislation. Berlin: epubli. CT	too Inks: Ana			Limit	Amo	ount	
		Arsenic (As)		≤ 2 ppm	< 2	ppm	
		Barium (Ba)		≤ 50 ppm	< 50	ppm	
		Cadmium (Cd)	≤ 0.2 ppm		< 0.2	ppm	
		Cobalt (Co)		≤ 25 ppm	< 25	ppm	
		Chromium (Cr), VI		≤ 0.2 ppm	< 0.2	ppm	
		Copper (Cu), soluble		≤ 25 ppm	< 25	ppm	yes
		Mercury (Hg)		≤ 0.2 ppm	< 0.2	ppm	
		Nickel (Ni)	As low	as technically achievable	< 0.5	ppm	
		Lead (Pb)		≤ 2 ppm	< 2	ppm	
		Selenium (Se)		≤ 2 ppm	< 2	ppm	
		Antimony (Sb)		≤ 2 ppm	< 2	ppm	
		Tin (Sn)		≤ 50 ppm	< 50	ppm	
		Zinc (Zn)		≤ 50 ppm	< 50	ppm	
PAH and BaP, Part 4 nvestigation of 16 compound Wethods acc. to EPA, ZEK 20 Detection limit: PAH 0.05 ppn Limit: PAH ≤ 0.5 ppm as tota	008-01 n as total, B		a-pyrene a		P(2008)	)1	
Nanhthalana	-		-	Dibenzo(a,h)anthracene			yes
Naphthalene		Pyrene		Indo (1,2,3-cd)pyrene			,
Acenaphthylene	-	Benz(a)anthracene	-	Benzo(g,h,i)perylene	-		
Acenaphthylene Acenaphthene		Chrysene	-	Benzo-a-pyrene (BaP)	-		
Acenaphthylene Acenaphthene Fluorene	-	Danza/h\fluaranthana	-				
Acenaphthylene Acenaphthene Fluorene Phenanthrene	-	Benzo(b)fluoranthene		Total			
Acenaphthylene Acenaphthene Fluorene		Benzo(b)fluoranthene Benzo(k)fluoranthene	-	Total	-		

Additional information:

Result of heavy metal aluminium, perspiration solution: 2 ppm

Pigment sample Arabica: Overall result: passed

caption: LFGB = German Food and Feed Code, - = not detectable

10/13

[Address] Krackser Straße 12
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[Managing director] Kerry-Luise Prior
[Registered office in] Bielefeld

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CTL® no 382190/5

[Material] Pigment sample

[Colour] Coffee

Azo-dyestuffs, Part 1a nvestigation of aromatic amir sensitising properties accordii Methods acc. to § 64 LFGB 8 Detection limit: 1 ppm; limit: a	ng to Col 2.02-2,3,	4,9	oxic and	not detectable		
Biphenyl-4-arylamine	-	4-Methoxy-m- phenylenediamine	-	4,4'-Methylenebis-(2- chloroaniline)	-	
Benzidine	-	4,4'-Methylenedianiline	-	4-Methyl-m- phenylenediamine	-	
4-Chloro-o-toluidine	-	3,3'-Dichlorobenzidine	-	o-Anisidine	-	yes
2-Naphthylamine	-	3,3'-Dimethoxybenzidine	-	4-Aminoazobenzene	-	
o-Aminoazotoluene	-	3,3'-Dimethylbenzidine	-	6-Amino-2- ethoxynaphthaline	-	
5-Nitro-o-toluidine	-	4,4'-Methylenedi-o-toluidine	-	4-Amino-3-fluorophenol	-	
4-Chloroaniline	-	6-Methoxy-m-toluidine	-			
		4 9				
Methods acc. to § 64 LFGB 8 Detection limit: 1 ppm	2.02-2,0,	4,9				yes
Detection limit: 1 ppm 4,4'-Oxydianiline	-	2,4,5-Trimethylaniline	-	2,6-Xylidine	-	yes
Oetection limit: 1 ppm 4,4'-Oxydianiline 4,4'-Thiodianiline	-	2,4,5-Trimethylaniline Para-phenylenediamine	-	2,6-Xylidine	-	yes
Oetection limit: 1 ppm  4,4'-Oxydianiline  4,4'-Thiodianiline  o-Toluidine	-	2,4,5-Trimethylaniline	- - -	2,6-Xylidine	-	yes
Oetection limit: 1 ppm 4,4'-Oxydianiline 4,4'-Thiodianiline	- - - P(2008)1	2,4,5-Trimethylaniline Para-phenylenediamine 2,4-Xylidine	-	2,6-Xylidine not detectable	-	yes
A,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/M	- - - P(2008)1	2,4,5-Trimethylaniline Para-phenylenediamine 2,4-Xylidine	-		-	yes
A,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L	- - - P(2008)1	2,4,5-Trimethylaniline Para-phenylenediamine 2,4-Xylidine	-	not detectable	-	yes
A,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/M Detection limit: 5 mg/L  Acid Green 16	- - - P(2008)1 //S-analys	2,4,5-Trimethylaniline Para-phenylenediamine 2,4-Xylidine sis acc. to DIN 54231 Disperse Blue 1	-	not detectable Pigment Red 53	-	yes
A,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26	- - - P(2008)1 //S-analys	2,4,5-Trimethylaniline Para-phenylenediamine 2,4-Xylidine sis acc. to DIN 54231  Disperse Blue 1 Disperse Blue 106	-	not detectable  Pigment Red 53  Pigment Violet 3		yes
A,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17	- - - P(2008)1 //S-analys	2,4,5-Trimethylaniline Para-phenylenediamine 2,4-Xylidine  sis acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124	-	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39		
A,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/M Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49	P(2008)1 IS-analys	2,4,5-Trimethylaniline Para-phenylenediamine 2,4-Xylidine  sis acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 3	- - - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35	-	yes
A,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49  Acid Yellow 36	P(2008)1 IS-analys	2,4,5-Trimethylaniline Para-phenylenediamine 2,4-Xylidine  sis acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 3  Disperse Blue 35	- - - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7	-	
A,4'-Oxydianiline 4,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49  Acid Yellow 36  Basic Blue 7	P(2008)1  P(2008)1  IS-analys	2,4,5-Trimethylaniline Para-phenylenediamine 2,4-Xylidine  sis acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 35  Disperse Orange 3	- - - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7  Solvent Red 24		
A,4'-Oxydianiline 4,4'-Thiodianiline 0-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49  Acid Yellow 36  Basic Blue 7  Basic Green 1	- - - P(2008)1 //S-analys	2,4,5-Trimethylaniline Para-phenylenediamine 2,4-Xylidine  sis acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 35  Disperse Orange 3  Disperse Orange 37	- - - - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7  Solvent Red 24  Solvent Red 49	-	
A,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16 Acid Red 26 Acid Violet 17 Acid Violet 49 Acid Yellow 36 Basic Blue 7 Basic Green 1 Basic Red 1	P(2008)1 IS-analys	2,4,5-Trimethylaniline Para-phenylenediamine 2,4-Xylidine  sis acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 35  Disperse Orange 3  Disperse Orange 37  Disperse Red 1	- - - - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7  Solvent Red 24  Solvent Red 49  Solvent Violet 9	-	
A,4'-Oxydianiline 4,4'-Thiodianiline o-Toluidine  Oyestuffs, Part 2* Acc. to CoE Resolution ResA Methods: TLC-, HPLC-, GC/N Detection limit: 5 mg/L  Acid Green 16  Acid Red 26  Acid Violet 17  Acid Violet 49  Acid Yellow 36  Basic Blue 7  Basic Green 1  Basic Red 1  Basic Red 9	P(2008)1  P(2008)1  IS-analys	2,4,5-Trimethylaniline Para-phenylenediamine 2,4-Xylidine  Sis acc. to DIN 54231  Disperse Blue 1  Disperse Blue 106  Disperse Blue 124  Disperse Blue 35  Disperse Orange 3  Disperse Orange 37  Disperse Red 1  Disperse Red 17	- - - - - - - -	not detectable  Pigment Red 53  Pigment Violet 3  Pigment Violet 39  Solvent Blue 35  Solvent Orange 7  Solvent Red 24  Solvent Red 49  Solvent Violet 9  Solvent Yellow 1	-	



CTL® no 382190/5

[Material] Pigment sample

[Colour] Coffee

<b>Heavy metals, Part 3</b> Acc. to CoE Resolution ResA Method: Prior, G. (2014). Tatt Legislation. Berlin: epubli. CT	too Inks: Ana			Limit	Amo	ount	
		Arsenic (As)		≤ 2 ppm	< 2	ppm	
		Barium (Ba)		≤ 50 ppm	< 50	ppm	
		Cadmium (Cd)	≤ 0.2 ppm		< 0.2	ppm	
		Cobalt (Co)		≤ 25 ppm	< 25	ppm	
		Chromium (Cr), VI		≤ 0.2 ppm	< 0.2	ppm	
		Copper (Cu), soluble		≤ 25 ppm	< 25	ppm	yes
		Mercury (Hg)		≤ 0.2 ppm	< 0.2	ppm	
		Nickel (Ni)	As low	as technically achievable	< 0.5	ppm	
		Lead (Pb)		≤ 2 ppm	< 2	ppm	
		Selenium (Se)		≤ 2 ppm	< 2	ppm	
		Antimony (Sb)		≤ 2 ppm	< 2	ppm	
		Tin (Sn)		≤ 50 ppm	< 50	ppm	
		Zinc (Zn)		≤ 50 ppm	< 50	ppm	
PAH and BaP, Part 4 nvestigation of 16 compound Wethods acc. to EPA, ZEK 20 Detection limit: PAH 0.05 ppn Limit: PAH ≤ 0.5 ppm as tota	008-01 n as total, B		a-pyrene a		P(2008)	)1	
Nanhthalana	-		-	Dibenzo(a,h)anthracene			yes
Naphthalene		Pyrene		Indo (1,2,3-cd)pyrene			,
Acenaphthylene	-	Benz(a)anthracene	-	Benzo(g,h,i)perylene	-		
Acenaphthylene Acenaphthene		Chrysene	-	Benzo-a-pyrene (BaP)	-		
Acenaphthylene Acenaphthene Fluorene	-	Danza/h\fluaranthana	-				
Acenaphthylene Acenaphthene Fluorene Phenanthrene	-	Benzo(b)fluoranthene		Total			
Acenaphthylene Acenaphthene Fluorene		Benzo(b)fluoranthene Benzo(k)fluoranthene	-	Total	-		

Additional information:

Result of heavy metal aluminium, perspiration solution: 2 ppm

Pigment sample Coffee: Overall result: passed

caption: LFGB = German Food and Feed Code, - = not detectable

12/13

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CTL® no 382190/5

[Material] Pigment sample

[Colour] Coffee

Test	Test method	Result	passed
Sterility acc. to CoE Resolution ResAP(2008)1 (microbiological test) Part 5 Detection limit: < 10 CFU/g Test conducted by an accredited external laboratory.			
Spores of aerobes spore-forming, quantitative*	In-house method	< 10 CFU/g	yes
Spores of anaerobes spore- forming, quantitative*	In-house method	< 10 CFU/g	yes
Bacillus cereus presumptive, quantitative	§64 LFGB 00.00-33, mod.	< 10 CFU/g	yes
Sulphite reducing clostridia, quantitative	§64 LFGB 06.00-39, mod.	< 10 CFU/g	yes
Total viable count, aerobes mesophil 30°C	§64 LFGB 00.00-88/2, mod.	< 10 CFU/g	yes
Total viable count, anaerobes mesophil 30°C*	In-house method	< 10 CFU/g	yes
Pseudomonas sp., quantitative	§64 LFGB 06.00-43, mod.	< 10 CFU/g	yes

Intermediate result of sterility tests: passed

Comment:

CTL GmbH assumes full responsibility for test results of tests conducted by an accredited, external laboratory.

Yours sincerely,

CTL® GmbH Bielefeld

Il Fligate

i.A. Marion Heyde Customer consultant

i.V. Helmut Meyer Manager chemical-analytical laboratory