

Request Number	Not Applicable
Receipt Number	22/5644
Receipt date	18/02/22
Test begin - end date	18/02/22 - 24/02/22
Document issued on	24/02/22

Dear

MAIMI PAINT S.L.

DIV. MAIMI PAINT S.L.

Calle Ciudad de Sevilla, 5**46988 PATERNA****SAMPLE IDENTIFICATION (#):****A SAMPLE F3 UNION BLACK DYNAMIC COLOR****THIS DOCUMENT CONTAINS THE FOLLOWING TESTS:**

Code	Test	Test Method
CE0038	Tattoos inks and PMU: determination of heavy metals (reg. UE 2020/2081)	MIP_CE0038_rev1:2021
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	MIP_CE0073_rev0:2021 - ref. Reg. (EU) 2020/2081
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	AfPS GS 2019:01

General Remarks

Results refer exclusively to the materials presented by the Client as received; does not carry out withdrawals and / or samplings and, therefore, any representativeness of the analyzed material, also with respect to lots, is exclusive responsibility of the customer.

(#) Data provided by the Client. Moreover, when information is provided by the Client and can influence the validity of the results, the Laboratory declines all responsibilities.

The expanded uncertainty, available on request, is calculated with a coverage factor $k=2$ for a confidence level of 95%.

For qualitative tests, or tests where final result is assessed by numerical indexes, the expanded uncertainty is not applicable.

Materials delivered to will be kept available to the Customer for a period of 3 (three) months after completion of the Services; after this period all materials will be disposed of by

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Decision rule

Unless otherwise requested by the customer, for physical-mechanical tests, flammability tests and fastness tests, Laboratory defines the Pass/Fail assessment not taking into account the uncertainty associated to the measurement result. Uncertainty of method is available on request.

For all other types of tests, where the decision rule is not defined within the test method, laboratory use a decision rule based on "guard band" approach. The rule is described in the "conformity analysis" procedure adopting a coverage factor K unilateral equal to 1,645 for a confidence level of 95%.

Technical Manager

*Summary Results Evaluation based on PRSL***Compliance to Regulation EU 2020/2081**

Rev. 1 del 30/11/2019

<i>Item</i>	<i>Sample</i>	<i>Pass</i>	<i>Fail</i>
A	SAMPLE F3 UNION BLACK DYNAMIC COLOR	67 Pass	---

Evaluation Results Sample

SAMPLE F3 UNION BLACK DYNAMIC COLOR

Rev. 1 del 30/11/2019

Item	Test Method	Parameter	Limits	Value	P/F
CE0038	Tattoos inks and PMU: determination of heavy metals (reg. UE 2020/2081)	Antimony	$\leq 0,5$	Not Detectable	PASS
CE0038	Tattoos inks and PMU: determination of heavy metals (reg. UE 2020/2081)	Arsenic	$\leq 0,5$	Not Detectable	PASS
CE0038	Tattoos inks and PMU: determination of heavy metals (reg. UE 2020/2081)	Barium (soluble)	≤ 500	Not Detectable	PASS
CE0038	Tattoos inks and PMU: determination of heavy metals (reg. UE 2020/2081)	Cadmium	$\leq 0,5$	Not Detectable	PASS
CE0038	Tattoos inks and PMU: determination of heavy metals (reg. UE 2020/2081)	Chromium VI	$\leq 0,5$	Not Detectable	PASS
CE0038	Tattoos inks and PMU: determination of heavy metals (reg. UE 2020/2081)	Cobalt	$\leq 0,5$	Not Detectable	PASS
CE0038	Tattoos inks and PMU: determination of heavy metals (reg. UE 2020/2081)	Copper (soluble)	≤ 250	Not Detectable	PASS
CE0038	Tattoos inks and PMU: determination of heavy metals (reg. UE 2020/2081)	Lead	$\leq 0,7$	Not Detectable	PASS
CE0038	Tattoos inks and PMU: determination of heavy metals (reg. UE 2020/2081)	Mercury	$\leq 0,5$	Not Detectable	PASS
CE0038	Tattoos inks and PMU: determination of heavy metals (reg. UE 2020/2081)	Nickel	≤ 5	Not Detectable	PASS
CE0038	Tattoos inks and PMU: determination of heavy metals (reg. UE 2020/2081)	Organometallic tin	$\leq 0,5$	Not Detectable	PASS
CE0038	Tattoos inks and PMU: determination of heavy metals (reg. UE 2020/2081)	Selenium	≤ 2	Not Detectable	PASS
CE0038	Tattoos inks and PMU: determination of heavy metals (reg. UE 2020/2081)	Zinc (soluble)	≤ 2000	Not Detectable	PASS

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Mod.018 Rev .2 del 19.10.2021

CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	2,4,5-trimethylaniline (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	2,4-xylidine	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	2,6-xylidine	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	2-methyl-p-phenylenediamine (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	2-naphtylamine (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	3,3'-dichlorobenzidine (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	3,3'-dimethoxybenzidine (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	3,3'-dimethylbenzidine (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	4,4'-diaminodiphenylmethane (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	4,4'-methylene-bis-(2-chloro-aniline) (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	4,4'-methylenedi-o-toluidine (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	4,4'-oxydianiline (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	4,4'-thiodianiline (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	4-amino-3-fluorophenol (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	4-aminoazobenzene (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	4-aminobiphenyl (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	4-chloroaniline (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	4-chloro-o-toluidine (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	4-methoxy-m-phenylenediamine (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	4-methyl-m-phenylenediamine (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	5-nitro-o-toluidine (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	6-amino-2-ethoxynaphthalene	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	Aniline (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	benzidine (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	o-aminoazotoluene (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	o-anisidine (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	o-toluidine (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	p-cresidine (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	p-Phenylenediamine (as soluble)	<=5	Not Detectable	PASS

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CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	p-Toluidine (as soluble)	<=5	Not Detectable	PASS
CE0073	Tattoos Inks and PMU: determination of certain aromatic amines	sulfanilic acid (as soluble)	<=5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Acenafene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Acenaphtylene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Anthracene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Benzo(a)Anthracene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Benzo(a)Pyrene	<=0,005	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Benzo(g,h,i)Perylene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Benzo[b]fluoranthene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Benzo[e]Pyrene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Benzo[j]fluoranthene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Benzo[k]Fluoranthene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Crysene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Dibenzo(a,e)Pyrene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Dibenzo(a,h) Anthracene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Dibenzo(a,h)Pyrene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Dibenzo(a,i)Pyrene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Dibenzo(a,l)Pyrene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Fluoranthene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Fluorene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Indeno(1,2,3-cd)Pyrene	<=0,5	Not Detectable	PASS
CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon	Naphtalene	<=0,5	Not Detectable	PASS

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CE0082	<i>Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon</i>	<i>Perylene</i>	<i><=0,5</i>	<i>Not Detectable</i>	PASS
CE0082	<i>Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon</i>	<i>Phenanthrene</i>	<i><=0,5</i>	<i>Not Detectable</i>	PASS
CE0082	<i>Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon</i>	<i>Pyrene</i>	<i><=0,5</i>	<i>Not Detectable</i>	PASS

Begin of Test Report

CE0038 Tattoos inks and PMU: determination of heavy metals (reg. UE 2020/2081)

Test methods MIP_CE0038_rev1:2021

Rev. 0 del 06/04/2020

Testing conditions Total Metals: Acid digestion - microwave oven / Soluble metals: water extraction

Testing equipment ICP-MS / HPLC-DAD

Testing date 24/02/2022

Sample identification SAMPLE F3 UNION BLACK DYNAMIC COLOR

Heavy metals		Results mg/kg	LOQ -Limit of quantification mg/kg	Maximum allowed concentration Regulation UE 2020/2081 mg/kg
As	Arsenic	< LOQ	0,4	0,5
Ba	Barium (soluble)	< LOQ	0,4	500
Cd	Cadmium	< LOQ	0,4	0,5
Co	Cobalt	< LOQ	0,4	0,5
Cr6	Chromium VI	< LOQ	0,3	0,5
Cu	Copper (soluble)	< LOQ	0,4	250
Hg	Mercury	< LOQ	0,4	0,5
Ni	Nickel	< LOQ	0,4	5
Pb	Lead	< LOQ	0,4	0,7
Se	Selenium	< LOQ	0,4	2
Sb	Antimony	< LOQ	0,4	0,5
Sn	Organometallic tin	< LOQ	0,4	0,5
Zn	Zinc (soluble)	< LOQ	0,4	2000

CE0073	Tattoos Inks and PMU: determination of certain aromatic amines
Test methods	MIP_CE0073_rev0:2021 - ref. Reg. (EU) 2020/2081

Rev. 0 del 06/04/2020

Testing conditions Amines classified as soluble: methanol extraction / others: buffer extraction with ref. to ISO 14362-1 / ISO 17234-1 and reductive cleavage

Testing equipment GC-MSMS / LC-MSMS

Testing date 24/02/2022

Sample identification	SAMPLE F3 UNION BLACK DYNAMIC COLOR
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SUBSTANCE	CAS N.	Quantification Limit (LOQ)	Result
<i>p</i> -Phenylenediamine (as soluble)	106-50-3	1 mg/kg	< LOQ
2,4,5-trimethylaniline (as soluble)	137-17-7 / 21436-97-5	1 mg/kg	< LOQ
2,4-xylydine	95-68-1	1 mg/kg	< LOQ
2,6-xylydine	87-62-7	1 mg/kg	< LOQ
2-naphtylamine (as soluble)	91-59-8 / 553-00-4	1 mg/kg	< LOQ
3,3'-dichlorobenzidine (as soluble)	91-94-1	1 mg/kg	< LOQ
4,4'-methylenedi-o-toluidine (as soluble)	838-88-0	1 mg/kg	< LOQ
3,3-dimethylbenzidine (as soluble)	119-93-7	1 mg/kg	< LOQ
3,3'-dimethoxybenzidine (as soluble)	119-90-4	1 mg/kg	< LOQ
4-methyl-m-phenylenediamine (as soluble)	95-80-7	1 mg/kg	< LOQ

4,4'-methylene-bis-(2-chloro-aniline) (as soluble)	101-14-4	1 mg/kg	< LOQ
4,4'-oxydianiline (as soluble)	101-80-4	1 mg/kg	< LOQ
4,4'-thiodianiline (as soluble)	139-65-1	1 mg/kg	< LOQ
4-aminobiphenyl (as soluble)	92-67-1	1 mg/kg	< LOQ
4-aminoazobenzene (as soluble)	60-09-3	1 mg/kg	< LOQ
4-chloroaniline (as soluble)	106-47-8	1 mg/kg	< LOQ
4-chloro-o-toluidine (as soluble)	95-69-2 / 3165-93-3	1 mg/kg	< LOQ
4,4'-diaminodiphenylmethane (as soluble)	101-77-9	1 mg/kg	< LOQ
4-methoxy-m-phenylenediamine (as soluble)	615-05-4 / 39156-41-7	1 mg/kg	< LOQ
5-nitro-o-toluidine (as soluble)	99-55-8	1 mg/kg	< LOQ
Aniline (as soluble)	62-53-3	1 mg/kg	< LOQ
benzidine (as soluble)	92-87-5	1 mg/kg	< LOQ
o-aminoazotoluene (as soluble)	97-56-3	1 mg/kg	< LOQ
o-anisidine (as soluble)	90-04-0	1 mg/kg	< LOQ
o-toluidine (as soluble)	95-53-4	1 mg/kg	< LOQ
p-cresidine (as soluble)	120-71-8	1 mg/kg	< LOQ
4-amino-3-fluorophenol (as soluble)	399-95-1	1 mg/kg	< LOQ
6-amino-2-ethoxynaphthalene	293733-21-8	1 mg/kg	< LOQ
2-methyl-p-phenylenediamine (as soluble)	95-70-5	1 mg/kg	< LOQ
sulfanilic acid (as soluble)	121-57-3	1 mg/kg	< LOQ
p-Toluidine (as soluble)	106-49-0	1 mg/kg	< LOQ

CE0082	Tattoo Inks, PMU and polymers: Determination of Polycyclic Aromatic Hydrocarbon
Test methods	AfPS GS 2019:01

Rev. 0 del 06/04/2020

Testing conditions organic solvent extraction - ultrasonic bath
 Testing equipment GC-MSMS
 Testing date 24/02/2022

Sample identification	SAMPLE F3 UNION BLACK DYNAMIC COLOR
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SUBSTANCE	CAS N.	Quantification Limit (LOQ)	Result
Naphtalene	91-20--3	0,05 mg/kg	< LOQ
Acenaphthylene	208-96-8	0,05 mg/kg	< LOQ
Acenafene	83-32-9	0,05 mg/kg	< LOQ
Fluorene	86-73-7	0,05 mg/kg	< LOQ
Phenanthrene	85-01-8	0,05 mg/kg	< LOQ
Anthracene	120-12-7	0,05 mg/kg	< LOQ
Fluoranthene	206-44-0	0,05 mg/kg	< LOQ
Pyrene	129-00-0	0,05 mg/kg	< LOQ
Crysene	218-01-9	0,05 mg/kg	< LOQ
Benzo(a)Anthracene	56-55-3	0,05 mg/kg	< LOQ
Benzo[b]fluoranthene	205-99-2	0,05 mg/kg	< LOQ
Benzo[k]Fluoranthene	207-08-9	0,05 mg/kg	< LOQ
Benzo[e]Pyrene	192-97-2	0,05 mg/kg	< LOQ
Benzo(a)Pyrene	50-32-8	0,005 mg/kg	< LOQ
Perylene	198-55-0	0,05 mg/kg	< LOQ
Indeno(1,2,3-cd)Pyrene	193-39-5	0,05 mg/kg	< LOQ
Dibenzo(a,h) Anthracene	53-70-3	0,05 mg/kg	< LOQ
Benzo(g,h,i)Perylene	191-24-2	0,05 mg/kg	< LOQ
Dibenzo(a,l)Pyrene	191-30-0	0,05 mg/kg	< LOQ
Dibenzo(a,e)Pyrene	192-65-4	0,05 mg/kg	< LOQ
Dibenzo(a,i)Pyrene	189-55-9	0,05 mg/kg	< LOQ
Dibenzo(a,h)Pyrene	189-64-0	0,05 mg/kg	< LOQ
Benzo[j]fluoranthene	205-82-3	0,05 mg/kg	< LOQ
Total amount			< LOQ

End of Test Report