

– CONFIDENTIAL INFORMATION –

## Statement of Composition

of the sheet-fed offset printing inks

### MGA® CORONA

- MGA® CORONA 5200 Process printing inks
- MGA® CORONA 5220 Process printing inks  
(sales code xxMGA5200, or xxMGA5220)
- MGA® CORONA CRSmax Basic inks  
(sales code xxMGAxxxxD)
- MGA® CORONA Special colour inks\*  
(sales code xxxxxxD)

used in the manufacture of food packaging  
made of paper and board

Regulation (EC) No 1935/2004<sup>1</sup> requires that materials and articles which, in their finished state, are intended to be brought into contact with foodstuffs or which are brought into contact with foodstuffs, must not transfer any components to the packed foodstuff in quantities which could endanger human health, or bring about an unacceptable change in the composition or deterioration in organoleptic properties.

This means that the manufacturer of the finished article and the filler have the legal responsibility to ensure that the food packaging is fit for its intended purpose.

Provided that our products cited above are used in accordance with the information given in the Technical Data Sheet and correctly processed, and provided that the food packaging is designed in a way that there is no intended direct food contact with the print, we hereby confirm that our products will in principle allow compliance of the final product with Regulation (EC) No 1935/2004.

1. The **hubergroup** products cited above are manufactured in accordance with the EuPIA "Guideline on Printing Inks applied to Food Contact Materials" (April 2020) and EuPIA "Good Manufacturing Practices (GMP) – Printing Inks for Food Contact Materials" (March 2016). The manufacturing location is certified in accordance with ISO 9001.
2. The products cited above are compliant with section 12 ("Druckfarben" – printing inks) of the Swiss Ordinance on Materials and Articles in Contact with Food (SR 817.023.21), version applicable from December 2020.
3. Based on information provided by raw material suppliers, printed packaging manufactured using the products cited above will contain the following substances:

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\* This Statement of Composition covers every MGA CORONA printing ink, with the exception of the standard MGA CORONA Gold and Silver metallic inks which are covered by a separate Statement of Composition.

<sup>1</sup> Regulation (EC) No 1935/2004 of the European Parliament and of the Council of 27 October 2004 on Materials and Articles intended to come into Contact with Food

Substances used or known to be present in the dried ink with the potential to migrate, including indication whether the substances are restricted under the scope of the Plastics Regulation (EU) No 10/2011, the Swiss Ordinance 817.023.21 Annex 2 or 10, or listed as a food additive in Regulation (EC) No 1333/2008 or 1334/2008:

CAS No	PM Ref No	FCM No	Name	Restrictions and specific migration limits (SML) in [mg/kg]		Regulation (EC) No 1333/2008, 1334/2008	Maximum amount in dried ink film [%]	Comments
				Regulation (EU) No 10/2011	Swiss Ordinance 817.023.021 Annex 10			
	30610	9	acids, C 2-C 24, aliphatic, linear, monocarboxylic from natural oils and fats, and their mono-, di- and triglycerol esters (branched fatty acids at naturally occurring levels are included)	(60)	(60)		10	only in coloured metallic inks
	81760	80	brass, covered by FCM No 80 "powders, flakes and fibres of brass, bronze, copper, stainless steel, tin, iron and alloys of copper, tin and iron"	5 (copper) 5 (zinc)	5 (copper) 5 (zinc)		45%	non-migratory substance; C.I. Pigment Metal 2, used only in coloured (Gold) metallic inks
77-99-6	13380 25600 94960	141	1,1,1-trimethylolpropane	6	6		0.5	only in white and pastel inks
98-83-9	22210	187	$\alpha$ -methyl styrene	0.05	0.05		(V, trace)	only in coloured metallic inks
100-42-5	24610	193	Styrene	(60)	(60)		(V, trace)	+only in coloured metallic inks
	34480	501	aluminium fibers, flakes and powders	1 (aluminium)	1 (aluminium)	E 173	20%	non-migratory substance; C.I. Pigment Metal 1, used only in coloured (Silver) metallic inks
8001-22-7	24520	524	soybean oil	(60)	(60)		40	
9002-88-4	80000	549	polyethylene wax	(60)	(60)		1	
73138-82-6	24070 83610	741	resin acids and rosin acids	(60)	(60)		traces	pigment additive
	31335	878	acids, fatty (C8-C22) from animal or vegetable fats and oils, esters with branched alcohols, aliphatic, monohydric, saturated, primary (C3-C22)	(60)	(60)		1	
	31336	879	acids, fatty (C8-C22) from animal or vegetable fats and oils, esters with alcohols, linear, aliphatic, monohydric, saturated, primary (C1-C22)	(60)	(60)		30	

CAS No	PM Ref No	FCM No	Name	Restrictions and specific migration limits (SML) in [mg/kg]		Regulation (EC) No 1333/2008, 1334/2008	Maximum amount in dried ink film [%]	Comments
				Regulation (EU) No 10/2011	Swiss Ordinance 817.023.021 Annex 10			
	31348	880	acids, fatty (C8-C22), esters with pentaerythritol	(60)	(60)		20	
34590-94-8	51870		dipropylenglycol monomethyl ether (DPGME, mixture of isomers)		SML(T)=5		(V, trace)	
1948-33-0			tert-butyl-hydroquinone (TBHQ)		42	E 319	0.5	

(60) = Default migration limit for evaluated substances when no specific restriction is published. The sum of substances under FCM No 9, 524, 878, 879 and 880 is <65%  
 V = Volatile substances, not intentionally added (NIAS). The amount of volatile substances in the print is under the control of the converter.

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## Primary Aromatic Amines (PAA) with Restrictions

Primary Aromatic Amines<sup>2</sup> with restrictions in Annex II (2) of the Plastics Regulation (EU) No 10/2011 are not used as intentionally added ingredients, but may possibly be present as unavoidable trace impurities in pigments used in the manufacture of the inks.

List of PAA that may, according to WCC<sup>3</sup> using information from the suppliers of pigments used in the manufacture of the inks, potentially exceed the detection limit of 0.01 mg/kg food (in sum) or 0.002 mg/kg food (for individual carcinogenic PAA):

	CAS No
Aniline	62-53-3
p-Toluidine-o-sulfonic acid	88-44-8
o-Anisidine	90-04-0
3,3'-Dichlorobenzidine	91-94-1
o-Phenitidine	94-70-2
o-Toluidine	95-53-4
1,2-Phenylenediamine	95-54-5
2,4-Dimethylaniline	95-68-1
2-Methoxy-4-nitroaniline	97-52-9
4-Nitro-1,2-phenylenediamine	99-56-9
p-Toluidine	106-49-0
2,4,5-Trichloroaniline	636-30-6
2,5-Dimethoxy-4-chloroaniline	6358-64-1

For the *process* printing inks **MGA® CORONA 5200** (Y, M, C, B) the following reduced list applies:

p-Toluidine-o-sulfonic acid	88-44-8
3,3'-Dichlorobenzidine	91-94-1
o-Toluidine	95-53-4
2,4-Dimethylaniline	95-68-1

For the *process* printing inks **MGA® CORONA 5220** (Y, M, C, B) the following reduced list applies:

Aniline	62-53-3
o-Phenitidine	94-70-2
4-Nitro-1,2-phenylenediamine	99-56-9
2,5-Dimethoxy-4-chloroaniline	6358-64-1

<sup>2</sup> Note for Caution: in applications where higher temperatures are applied for longer periods of time (such as retort or sterilization) PAA may be formed due to partial decomposition of the pigments. In case the printed packaging to be used in such applications, the printer shall inform his **hubergroup** contact who may recommend specific inks and supply specific information on request.

<sup>3</sup> Worst Case Calculation based on the EU cube model, assuming that the amount of wet offset ink used is 2 g per m<sup>2</sup>.

Indicative migration testing of model samples using the methods described in the Plastics Regulation (EU) No 10/2011 demonstrated that PAA covered by Annex II (2) to the Plastics Regulation (EU) No 10/2011 are not released above the detection limit as specified in the Plastics Regulation<sup>4</sup>.

### Metals with Restrictions

The product may contain substances with restrictions listed in Annex II (1) to the Plastics Regulation (EU) No 10/2011. Such substances are shown in the data table only if the migration of these substances from the final article could exceed the limits specified in the Plastics Regulation<sup>4</sup>.

This information is provided to allow other members of the packaging chain to assess compliance in regard to the Framework Regulation (EC) No 1935/2004, and/or the Plastics Regulation (EU) No 10/2011 and/or Swiss Ordinance 817.023.21.

**The Information may only be used for this purpose.**

**This document must be treated as confidential and must not be transmitted to third parties without prior consent.**

4. On request and following the signing of a non-disclosure agreement, we will fully disclose to analytical institutes the formulation of our products for the purpose of conducting compliance testing on the final printed material or packaging.

The information contained herein is based upon data believed to be up-to-date and correct at the time of writing. It is provided to our customers (and/or analytical contractors) in order that they are able to comply with all applicable health and safety laws, regulations and orders. In particular, customers are under an obligation to carry out a risk assessment under relevant Good Manufacturing Practices (GMP) in line with EU food contact legislation, and as a result take adequate risk management measures to protect food consumers.

Since the application and conditions of use are beyond our control, the information provided does not represent a guarantee of any kind for the properties or conformity of the final printed product. The product's performance and its suitability for the customer's purpose depend on the particular conditions of use and the material being printed. We recommend that customers satisfy themselves that each product meets their requirements in all respects before commencing a print run. There is no implied guarantee of merchantability or fitness for purpose of the product or products described herein.

Kirchheim, 25 January 2023

hubergroup Deutschland GmbH

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<sup>4</sup> As stated in the Technical Information sheet, MGA® CORONA printing inks are not recommended for the manufacture of articles where the printed surface is intended to be in direct contact with food, or can be reasonably expected to come in direct contact with food, such as napkins, placemats, and bakery bags, or other articles where the ink is printed on paper or board and where analyses are performed which are significantly deviating from the methods described in the Plastics Regulation (EU) No 10/2011 (e.g. extraction method with cold water).