eCORRUGATED
EFFICIENTLY MANUFACTURED PACKAGING

PPWR INFORMATION PACK

ISSUE 1 24.04.26.26 AUTHOR: P.LAVELLE

CONTACT DETAILS.....

0151 355 6352

TECHNICAL DEPARTMENT: paul@ecorrugated.co.uk

Paperwork attached in this pack is as follows:

1. **CERTIFICATE OF CONFORMITY**
2. **CERTIFICATE OF RECYCLABILITY**
3. **PFAS COMPLIANCE DECLARATION**
4. **CORRUGATED BOARD RECYCLE CONTENT**
5. **CHEMICAL COMPLIANCE REPORT**
6. **WATER BASED INK TECHNICAL DATA SHEET**
7. **GLUE TECHNICAL DATA SHEET**

1. CERTIFICATE OF CONFORMITY

Valid from MARCH 2026 to MARCH 2027

We certify that all corrugated packaging products manufactured and supplied by **eCorrugated Ltd** conform to agreed technical specifications and all relevant legislative requirements, including the **PPWR Regulation (EU) 2025/40**.

eCorrugated Ltd holds the following site certifications:

- **BRCGS standard for packaging materials issue 7**
- **FSC Chain of custody**

Signed: P. Middleton
Position: Quality and Health & Safety Manager

Signed 
Position: Managing Director

2. Certificate of Recyclability

Product(s): Corrugated RSC's & Corrugated Sheets

Date: 24.04.26

To whom it may concern,

eCorrugated Ltd hereby certifies that the finished products listed above are designed and manufactured for full recyclability.
Our assessment confirms that these products meet the essential requirements for material recycling in accordance with EN 13430:2004 (Packaging – Requirements for packaging recoverable by material recycling).
Specifically:

- Material Selection: The primary components are compatible with existing industrial recycling streams.
- Design for Recycling: The product construction allows for effective sorting and processing without the presence of contaminants that would hinder the quality of the recycled output.
- Documentation: We maintain technical files verifying the material composition and the recyclability of the finished unit.

We remain committed to supporting a circular economy through sustainable product design and material recovery.

Sincerely,
Paul Lavelle
Managing Director
eCorrugated Ltd

3. PFAS Compliance Declaration

Product(s): Corrugated RSC's & Corrugated Sheets

Date: 24.04.26

To whom it may concern,

This letter serves to formally declare that eCorrugated Ltd does not intentionally add Per- and Polyfluoroalkyl Substances (PFAS) during the manufacturing process of the above-listed products.

While our independent laboratory reports confirm no quantifiable levels of PFOA or PFOS, we further certify that no PFAS compounds are used as raw materials, processing aids, or functional additives in our production line.

To the best of our knowledge, our products are compliant with current PFAS-related regulatory requirements and customer specifications regarding "no intentionally added PFAS."

Sincerely,

Paul Lavelle

Managing Director

eCorrugated Ltd

4.CORRUGATED BOARD RECYCLE CONTENT

Site	Quality	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Recycled content
PW12	102B	TL 115					WS 90	TL 115	100%
PW12	102B N2	TL 115					WS 80	TL 115	100%
PW12	102B W6	TL 115					WS 135	TL 115	100%
PW12	103B	TL 115					WS 90	TL 135	100%
PW12	103B W6	TL 115					WS 135	TL 135	100%
PW12	104B W6	TL 135					WS 135	TL 135	100%
PW12	104E	TL 135					WS 70	TL 135	100%
PW12	110B	TL 90					WS 90	TL 90	100%
PW12	110B N2	TL 90					WS 80	TL 90	100%
PW12	110B W6	TL 90					WS 135	TL 90	100%
PW12	110E	TL 90					WS 70	TL 90	100%
PW12	115B	TL 90					WS 90	TLW 120	100%
PW12	115B N2	TL 90					WS 80	TLW 120	100%
PW12	115B X8	TL 135					WS 90	TLW 120	100%
PW12	115E	TL 90					WS 70	TLW 120	100%
PW12	116B	TLW 120					WS 90	TLW 120	100%
PW12	116B N2	TLW 120					WS 80	TLW 120	100%
PW12	121B	TL 115					WS 90	PLK 120	100%
PW12	121B T2	TL 90					WS 80	PLK 120	100%
PW12	121B X3	PLK 120					WS 135	PLK 120	100%
PW12	121B X5	TL 90					WS 90	PLK 120	100%
PW12	121B X6	TL 90					WS 135	PLK 120	100%
PW12	121E	TL 115					WS 70	PLK 120	100%
PW12	121E X9	PLK 120					WS 70	PLK 120	100%
PW12	125B	TL 135					WS 90	TLW 135	100%
PW12	125B N2	TL 135					WS 80	TLW 135	100%
PW12	125B N6	TL 135					WS 135	TLW 135	100%
PW12	125B W6	TL 135					WS 135	TLW 135	100%
PW12	125B W8	TL 135					PMS 140	TLW 135	100%
PW12	125C W6	TL 135					WS 135	TLW 135	100%
PW12	125E	TL 135					WS 70	TLW 135	100%
PW12	125E X3	KL 135					WS 90	TLW 135	75%
PW12	126B	TLW 135					WS 90	TLW 135	100%
PW12	126B N2	TLW 135					WS 80	TLW 135	100%
PW12	126B W6	TLW 135					WS 135	TLW 135	100%
PW12	126E	TLW 135					WS 70	TLW 135	100%
PW12	127E	TL 115					WS 90	KLW 135	63%
PW12	127E W1	TL 115					WS 70	KLW 135	60%
PW12	130B	TL 135					WS 90	PLK 140	100%
PW12	130B N2	TL 135					WS 80	PLK 140	100%
PW12	130B W6	TL 135					WS 135	PLK 140	100%
PW12	130C	TL 135					WS 90	PLK 140	100%
PW12	130C W6	TL 135					WS 135	PLK 140	100%
PW12	130E W3	TL 135					WS 70	PLK 140	100%
PW12	130E W6	TL 135					WS 135	PLK 140	100%
PW12	131B	TL 135					WS 135	KL 135	79%
PW12	131B N1	TL 135					WS 135	KL 135	79%
PW12	131B W2	TL 135					WS 90	KL 135	76%

PW12	131C	TL 135					WS 135	KL 135	79%
PW12	131E	TL 135					WS 135	KL 135	78%
PW12	131E W2	TL 135					WS 90	KL 135	75%
PW12	132B N2	PLK 140					WS 80	PLK 140	100%
PW12	132B Q2	KLW 135					WS 80	KL 135	39%
PW12	132E W6	PLK 140					WS 135	PLK 140	100%
PW12	133B W8	KL 135					PMS 140	KL 135	59%
PW12	133E	KL 135					WS 70	KL 135	47%
PW12	133E W2	KL 135					WS 90	KL 135	50%
PW12	137B	TL 135					WS 90	KLW 135	65%
PW12	137B L6	TLW 135					WS 135	KLWL 160	66%
PW12	137B L9	TLW 135					WS 90	KLWL 160	61%
PW12	137B N2	TL 135					WS 80	KLW 135	64%
PW12	137B N6	TL 135					WS 135	KLW 135	70%
PW12	137B W6	TL 135					WS 135	KLW 135	70%
PW12	137B W8	TL 135					PMS 140	KLW 135	71%
PW12	137B X4	KL 135					WS 135	KLW 135	49%
PW12	137C	TL 135					WS 90	KLW 135	66%
PW12	137C W6	TL 135					WS 135	KLW 135	71%
PW12	137E	TL 135					WS 70	KLW 135	62%
PW12	137E L4	TLW 135					WS 70	KLWL 160	58%
PW12	137E L8	TLW 135					WS 135	KLWL 160	65%
PW12	137E W6	TL 135					WS 135	KLW 135	69%
PW12	137E X5	KL 135					WS 90	KLW 135	40%
PW12	137E X9	KL 135					WS 70	KLW 135	36%
PW12	139B	TLW 135					WS 90	KLW 135	65%
PW12	139B N2	TLW 135					WS 80	KLW 135	64%
PW12	139B N6	TLW 135					WS 135	KLW 135	70%
PW12	139B W6	TLW 135					WS 135	KLW 135	70%
PW12	139E W6	TLW 135					WS 135	KLW 135	69%
PW12	140B X1	TL 170					WS 90	PLK 175	100%
PW12	140B X6	PLK 140					WS 135	PLK 175	100%
PW12	140C X6	PLK 140					WS 135	PLK 175	100%
PW12	140E	KL 175					WS 90	KL 175	47%
PW12	141B	PLK 140					WS 135	KL 175	75%
PW12	141B X1	TL 170					WS 90	KL 175	74%
PW12	141C	PLK 140					WS 135	KL 175	76%
PW12	141C W9	TL 170					PMS 140	KL 175	77%
PW12	141E X3	TL 170					WS 90	KL 175	73%
PW12	141E X8	TL 170					WS 135	KL 175	76%
PW12	143B W6	KL 175					WS 135	KL 175	54%
PW12	143B W8	KL 175					PMS 140	KL 175	54%
PW12	143C	KL 175					WS 135	KL 175	55%
PW12	143C W8	KL 175					PMS 140	KL 175	55%
PW12	145C W6	PLK 140					WS 135	KLW 135	71%
PW12	145C X2	PLK 175					PMS 140	KLW 135	73%
PW12	145C X6	KL 135					PMS 140	KLW 135	51%
PW12	147B C8	KLW 135					WS 135	KLWL 160	38%
PW12	147B L3	TL 170					WS 135	KLWL 160	69%

PW12	147B L7	KLW 135					WS 135	KLWL 160	38%
PW12	147B L8	TL 135					WS 135	KLWL 160	66%
PW12	147B Q1	KL 135					WS 135	KLW 135	49%
PW12	147B W6	KL 175					WS 135	KLW 135	47%
PW12	147B W8	KL 175					PMS 140	KLW 135	48%
PW12	147C W7	KL 175					PMS 140	KLW 135	49%
PW12	147C W8	KL 175					PMS 140	KLW 135	49%
PW12	147E L8	TL 135					WS 135	KLWL 160	65%
PW12	149B	KLW 135					WS 90	KLW 135	31%
PW12	149B W6	KLW 135					WS 135	KLW 135	40%
PW12	149E	KLW 135					WS 70	KLW 135	24%
PW12	149E W6	KLW 135					WS 135	KLW 135	38%
PW12	150B	KL 280					WS 90	KL 280	42%
PW12	150B W8	KL 280					PMS 140	KL 280	47%
PW12	150C W9	KL 280					PMS 140	KL 280	48%
PW12	150C X2	KL 175					PMS 140	KL 280	51%
PW12	150E X6	KL 175					WS 135	KL 280	49%
PW12	157C W8	KL 280					PMS 140	KLW 135	46%
PW12	201BC N2	TL 90			WS 90	WS 90	WS 80	TL 90	100%
PW12	202BE X1	TL 90			WS 80	WS 90	WS 80	TL 90	100%
PW12	203BC N2	TL 90			WS 90	WS 90	WS 80	TL 115	100%
PW12	204BE W7	TL 135			WS 115	WS 90	WS 115	TL 135	100%
PW12	221BC T2	TL 90			WS 90	WS 90	WS 80	PLK 120	100%
PW12	225BE X6	TL 135			WS 90	WS 90	WS 135	TLW 135	100%
PW12	231BC N2	TL 115			WS 90	WS 90	WS 80	PLK 120	100%
PW12	231BC T2	TL 90			WS 90	WS 90	WS 80	KL 135	83%
PW12	231BE	TL 115			WS 80	WS 90	WS 80	PLK 120	100%
PW12	231BE X3	TL 135			WS 115	WS 115	WS 135	KL 135	87%
PW12	232BE W6	PLK 120			WS 135	WS 90	WS 135	PLK 120	100%
PW12	235BC N2	TL 90			WS 90	WS 90	WS 80	KLW 135	75%
PW12	235BE	TL 90			WS 80	WS 90	WS 80	KLW 135	74%
PW12	235BE X6	TL 135			WS 135	WS 90	WS 135	KLW 135	81%
PW12	237BC Q3	TL 135			WS 135	WS 90	WS 80	KLW 135	79%
PW12	240BC N2	TL 135			WS 115	WS 90	WS 80	PLK 140	100%
PW12	240BE X5	PLK 140			WS 90	WS 115	WS 90	PLK 140	100%
PW12	241BE X1	TL 135			WS 80	WS 90	WS 90	KL 135	84%
PW12	242BE	KL 135			WS 80	WS 90	WS 80	KL 135	67%
PW12	242BE X1	KL 135			WS 135	WS 80	WS 135	KL 135	73%
PW12	242BE X5	KL 135			WS 115	WS 90	WS 115	KL 135	71%
PW12	245BE X1	KL 135			WS 115	WS 90	WS 115	TLW 135	86%
PW12	245BE X4	KL 135			WS 135	WS 90	WS 135	KLW 135	68%
PW12	245BE X7	KL 135			WS 115	WS 90	WS 115	KLW 135	65%
PW12	247BC Q6	PLK 175			PMS 140	WS 115	WS 135	KLW 135	83%
PW12	250BC N2	PLK 140			WS 115	WS 90	WS 80	PLK 175	100%
PW12	250BC Q7	TL 170			WS 115	WS 90	WS 115	PLK 175	100%
PW12	251BE X2	TL 170			WS 80	WS 90	WS 90	KL 175	81%
PW12	255BC N2	KL 175			WS 90	WS 90	WS 80	KLW 135	59%
PW12	255BE X3	KL 175			PMS 140	WS 115	PMS 140	KLW 135	67%
PW12	260BC N2	PLK 175			WS 115	WS 90	WS 80	PLK 175	100%

PW12	260BC Q1	TL 170			WS 90	WS 90	WS 80	PLK 175	100%
PW12	260BE W9	PLK 175			WS 80	WS 90	WS 115	PLK 175	100%
PW12	261BE W1	KL 175			WS 80	WS 90	WS 80	KL 175	62%
PW12	261BE W6	KL 175			WS 135	WS 80	WS 135	KL 175	69%
PW12	261BE X2	KL 175			PMS 140	KL 175	PMS 140	KL 175	58%
PW12	265BC Q1	KL 280			WS 135	WS 90	WS 135	KLW 135	62%
PW12	270BC N2	PLK 175			WS 135	WS 115	WS 115	PLK 175	100%
PW12	271BC N1	KL 175			PMS 140	WS 115	WS 135	KL 175	71%
PW12	290BC	KL 280			PMS 140	PLK 140	PMS 140	KL 280	64%

5. CHEMICAL COMPLIANCE REPORT

Origin of sample material: From the client

Purpose: Analysis of corrugated board grades for their compliance with the demands on food contact materials

(Dr. Derra)
Managing Director

(Behrendt)
Officially certified and authorized food chemist

Sample Material

For analysis the following sample material was in hand:

Sample 1:	1.02B N2
Sample 2:	1.03B W1
Sample 3:	1.10B N2
Sample 4:	1.22C X1
Sample 5:	1.24B Q7
Sample 6:	1.25E
Sample 7:	1.26B C2
Sample 8:	1.27E L2
Sample 9:	1.36B C2
Sample 10:	1.55B X6
Sample 11:	2.35BE
Sample 12:	2.50BC N2
Sample 13:	2.71BC N1
Sample 14:	2.90 BC
Sample 15:	2.92 AC
Sample 16:	3.90 AAC
Sample 17:	3.91 AAC
Sample 18:	3.92 AAC
Sample 19:	3.95 AAC
Sample 20:	3.96 AAC

Unless stated differently, the samples 1 – 10 were examined as **mixed sample 1** and the samples 11 – 20 were examined as **mixed sample 2**.

1. Determination of the Grammage *

The determination was performed according to DIN EN ISO 536:2012-11 after conditioning of the sample at 23 °C/50 % relative humidity which is prescribed as standard atmosphere with a reduced amount of test specimens.

Result:

Mixed sample 1:	392	g/m²	≙	367	g dry matter/m²
Mixed sample 2:	1155	g/m²	≙	1077	g dry matter/m²

2. Determination of the Moisture Content *

The determination was performed as single determination according to DIN EN ISO 638:2009-01 in the condition as received.

Result:

Mixed sample 1:	6.1	%
Mixed sample 2:	6.4	%

3. Preparation of Extracts *

The extracts were prepared according to the "Methodensammlung zur Untersuchung von Papier, Karton und Pappe für den Lebensmittelkontakt" (collection of methods for the examination of paper and board for food contact) of the BfR as well as according to DIN EN 645:1994-01, 647:1994-01 and 15519:2008-01. The selection of suitable procedures for simulating the transfer of substances was performed according to the corresponding BfR guideline ("Leitfaden zur Überprüfung der Stoffübergänge von Bedarfsgegenständen aus Papier, Karton und Pappe").

Water: 24 hours at 23 °C

4. Determination of Methanal (Formaldehyde) in the Water Extract *

The determination was performed according to DIN EN 1541:2001-07 photometrically in line with the acetylacetone method.

Result:

Mixed sample 1 + 2:	not quantifiable	<	0.004	mg/g

5. Determination of Pentachlorophenol (PCP) in the Water Extract *

The determination was performed according to DIN EN ISO 15320:2011-08 by means of GC-ECD after concentration at a column and esterification.

Result:

Mixed sample 1:	0.017	mg/kg dry matter
Mixed sample 2:	0.018	mg/kg dry matter

6. Determination of the Transfer of Antimicrobial Constituents *

The determination was made according to DIN EN 1104:2019-01. Test specimens of a diameter of 10 mm were placed onto an inoculated nutrient medium and then incubated. The inhibition zone is indicated as total diameter (including the test specimen).

Result:

with *Aspergillus niger*:

Sample 1 - 20: Microbial growth up to the edges of the test specimens, no inhibition zone.

with *Bacillus subtilis*:

Sample 1 - 6: Microbial growth up to the edges of the test specimens. Presence of a modification of the test microorganism *B. subtilis* growth at the edges of the test pieces. Presence of a microbial contaminant of < 2 mm around the test pieces.

Sample 7 - 20: Microbial growth up to the edges of the test specimens. Presence of a microbial contaminant of < 2 mm around the test pieces.

Comment:

According to the current state of standardization, proof of the presence of an inhibition zone is provided by the absence of test microorganism growth in a minimum diameter of 14 mm. Therefore, a transfer of antimicrobial constituents is considered as not detected.

7. Determination of the Specific Migration into Tenax® (Modified Polyphenylene Oxide) *

The migration was performed according to DIN EN 14338:2004-03.

Conditions A: 10 days at 40 °C
Conditions B: 30 days at 40 °C

Testing procedure: one-sided contact

Subsequently, the volatile components adsorbed onto Tenax were extracted.

7.1. Gas chromatographic Analysis

The determination was performed according to SOP 160.200 by means of GCMS after extraction with methyl *tert*-butylether.

a) Sum of the volatile components

The volatile components were summarized semi-quantitatively using deuterated nonadecane as internal standard.

Result:

Conditions A:

Sample 7 + 10:	1.5	mg/dm²
Sample 19 + 20:	1.2	mg/dm²

b) Specific Evaluation

In addition, an examination for the below listed contaminants was performed.

Result:

Conditions A:

Sample 7 + 10 + 19 + 20:

Diisopropylnaphthalene (DIPN)	[38640-62-9]	not quantifiable	<	0.05	mg/dm²
Other solvent		not quantifiable	<	0.05	mg/dm²
Benzophenone	[119-61-9]	not quantifiable	<	0.02	mg/dm²
4-Methyl benzophenone	[134-84-9]	not quantifiable	<	0.02	mg/dm²

Diisobutyl phthalate	[84-69-5]	not quantifiable	<	0.02	mg/dm²
Dibutyl phthalate	[84-74-2]	not quantifiable	<	0.02	mg/dm²
Di(2-ethylhexyl) phthalate	[117-81-7]	not quantifiable	<	0.05	mg/dm²
Di-(2-ethylhexyl) adipate	[103-23-1]	not quantifiable	<	0.05	mg/dm²
2,2,4-trimethyl-1,3-pentanediol diisobutyrate (TXIB)	[6846-50-0]	not quantifiable	<	0.02	mg/dm²
Diethylene glycol dibenzoat	[120-55-8]	not quantifiable	<	0.002	mg/dm²
Benzyl-2-naphthylether	[613-62-7]	not quantifiable	<	0.002	mg/dm²

7.2. Mineral Oil (MOSH/MOAH)

The determination of the paraffinic, naphthenic mineral oil hydrocarbons (MOSH) and of the aromatic mineral oil hydrocarbons (MOAH) was performed according to the method published by the German "National Reference Laboratory for Materials in contact with food".

After extraction with hexane, the analysis was performed by means of on-line coupled HPLC-GC-FID using internal standards. In both fractions the chromatographically not resolved hump including signals on top was integrated. Hydrocarbon compounds not defined as mineral oil were deducted during the quantification.

Conditions B:

Result:	MOSH			MOAH		
	$< C_{16}$	$C_{16} - < C_{35}$	$C_{20} - \leq C_{35}$	$< C_{16}$	$C_{16} - \leq C_{35}$	
Sample 7:	< 0.08	0.88	0.54	< 0.08	0.11	mg/dm²
Sample 10:	< 0.08	0.95	0.55	< 0.08	0.10	mg/dm²
Sample 19:	< 0.08	0.90	0.50	< 0.08	0.09	mg/dm²
Sample 20:	< 0.08	0.71	0.44	< 0.08	0.05	mg/dm²

8. Determination of the Heavy Metals in Packagings *

The determination was performed after microwave disintegration by means of AAS or ICP-OES. It applies to those metals which are restricted according to the European Packaging Directive 94/62/EC as well as to the US American CONEG legislation.

Result:

Mixed sample 1:

Lead	(Pb):			5.3	mg/kg
Cadmium	(Cd):	not determinable	<	0.5	mg/kg
Mercury	(Hg):	not determinable	<	0.25	mg/kg
Chromium	(Cr):			3.7	mg/kg
Beryllium	(Be):	not determinable	<	10	mg/kg

Mixed sample 2:

Lead	(Pb):			5.1	mg/kg
Cadmium	(Cd):	not determinable	<	0.5	mg/kg
Mercury	(Hg):	not determinable	<	0.25	mg/kg
Chromium	(Cr):			3.6	mg/kg
Beryllium	(Be):	not determinable	<	10	mg/kg

Limit value 100 mg/kg (sum of Pb, Cd, Hg and Cr(VI)).

Comment: Under the disintegration conditions the total content of chromium including chromium(VI) is detected.

9. Determination of Vinylchloride [75-01-4] *

The determination was performed according to SOP 160.200 by means of Headspace-GCMS after dissolving the sample in N,N-dimethylacetamide.

Result:

Mixed sample 1 + 2:	not quantifiable	<	0.5	mg/kg

10. Determination of Vinylidene Chloride [75-35-4] *

The determination was performed according to SOP 160.200 by means of Headspace-GCMS.

Result:

Mixed sample 1 + 2:	not quantifiable	<	0.5	mg/kg
Mixed sample 1 + 2:	not quantifiable	<	0.5	mg/kg

11. Determination of Bisphenol A [80-05-7] and Bisphenol S [80-09-1] in the Water Extract *

The determination was performed according to SOP 162.200 by means of HPLC-fluorescence or HPLC-UV.

Result:

Mixed sample 1:

Bisphenol A	1.0	mg/kg
Bisphenol S	2.5	mg/kg

Mixed sample 2:

Bisphenol A	0.81	mg/kg
Bisphenol S	2.5	mg/kg

12. Determination of o-phenyl phenol [90-43-7] in the Water Extract *

The determination was performed according to SOP 162.200 by means of HPLC and UV detection.

Result:

Mixed sample 1 + 2: not quantifiable < 1.3 [1)] mg/kg

[1)] The determination limit had to be raised due to matrix interferences.

13. Determination of Perfluorooctanoic Acid [335-67-1] and Perfluorooctane Sulfonate [2795-39-3] *

The determination was performed according to SOP 162.200 by means of LCMS in a methanol extract.

Result:

Mixed sample 1 + 2:

Perfluorooctanoic Acid (PFOA):	not quantifiable	<	0.02	mg/kg
Perfluorooctane Sulfonate (PFOS):	not quantifiable	<	0.02	mg/kg

14. Determination of Phthalates *

The determination was performed according to SOP 160.200 by means of GCMS in an acetone extract. The following compounds were considered:

Diisobutyl phthalate	(DIBP)	[84-69-5]
Dibutyl phthalate	(DBP)	[84-74-2]
Di(2-ethylhexyl) phthalate	(DEHP)	[117-81-7]
Di-n-octyl phthalate	(DOP)	[117-84-0]
Benzylbutyl phthalate	(BBP)	[85-68-7]
Dimethylphthalate	(DMP)	[131-11-3]

Limit of quantitation: 1 mg/kg dry matter

Result:

Mixed sample 1:

Diisobutyl phthalate	3.8	mg/kg dry matter
Dibutyl phthalate	3.9	mg/kg dry matter
Di(2-ethylhexyl) phthalate	11	mg/kg dry matter

Mixed sample 2:

Diisobutyl phthalate	2.4	mg/kg dry matter
Dibutyl phthalate	2.9	mg/kg dry matter
Di(2-ethylhexyl) phthalate	9.4	mg/kg dry matter

The remaining compounds were not quantifiable.

15. Determination of the pH value *

The determination was performed according to ISO 6588 from a cold water extract.

Result:

Mixed sample 1:	8.1
Mixed sample 2:	8.0

16. Determination of Phosphates *

The determination was performed according to SOP 160.200 by gas chromatography in a methanol extract.

Result:

Mixed sample 1 + 2:

Tri-isobutylphosphate	not quantifiable	<	5	mg/kg dry matter
Tributylphosphate	not quantifiable	<	5	mg/kg dry matter
Triphenylphosphate	not quantifiable	<	5	mg/kg dry matter
Diphenyloctylphosphate	not quantifiable	<	5	mg/kg dry matter
Tri(ethylhexyl)phosphate	not quantifiable	<	5	mg/kg dry matter

17. Determination of Polycyclic Aromatic Hydrocarbons (PAH) *

The determination was performed according to the draft standard by means of GCMS. The following compounds were considered:

Naphthalene	[91-20-3]	Benzo[b]naphtho[1,2-d]thiophene	[205-43-6]
2-Methyl naphthalene	[91-57-6]	Benzo[a]anthracene	[56-55-3]
1-Methyl naphthalene	[90-12-0]	Triphenylene/Chrysene	[217-59-4]/[218-01-9]
Acenaphthylene	[208-96-8]	Benzo[b]fluoranthene	[205-99-2]
Acenaphthene	[83-32-9]	Benzo[k]fluoranthene	[207-08-9]
Fluorene	[86-73-7]	Benzo[e]pyrene	[192-97-2]
Phenanthrene	[85-01-8]	Benzo[a]pyrene	[50-32-8]
Anthracene	[120-12-7]	Perylene	[198-55-0]
2-Methyi phenanthrene	[2531-84-2]	Indeno[1,2,3-cd]pyrene	[193-39-5]
Fluoranthene	[206-44-0]	Dibenzo[a,h]anthracene	[53-70-3]
Pyrene	[129-00-0]	Benzo[g,h,i]perylene	[191-24-2]
Benzo[c]phenanthrene	[195-19-7]		

Limits of quantitation:
Acenapthylene, Fluorene, Fluoranthene, Triphenylene/Chrysene 0.03 mg/kg dry matter;
all other compounds 0.02 mg/kg dry matter.

Result:

Mixed sample 1:

Phenanthrene	0.041	mg/kg dry matter
Pyrene	0.034	mg/kg dry matter

Mixed sample 2:

Phenanthrene	0.027	mg/kg dry matter
Pyrene	0.022	mg/kg dry matter

Further compounds listed above were not quantifiable.

18. Determination of Polybromated Diphenylethers (PBDE) and Polybromated Biphenyls (PBB)

The determination was performed in collaboration with ARGUK-Umweltlabor GmbH, Oberursel/ Germany by means of GC-ECD or GCMS in an acetone extract. The following compounds were considered:

Tetrabromo diphenylether (TeBDE)
Pentabromo diphenylether (Σ PeBDE – 85, 99, 100)
Hexabromo diphenylether (HxBDE)
Heptabromo diphenylether (HeBDE)
Octabromo diphenylether (Σ OBDE – 196, 197, 203)
Nonabromo diphenylether (NBDE)
Decabromo diphenylether (DBDE)

Hexabromo biphenyl (HxBB)
Octabromo biphenyl (OBB)
Decabromo biphenyl (DBB)

Limit of quantitation: PBDE 10 mg/kg ; PBE 1 mg/kg

Result:

Mixed sample 1 + 2:

None of the above-listed compounds were quantifiable.

The accreditation applies to the methods marked with * in the test report (Register no. D-PL-14160-01-01 and D-PL-14160-01-02).

6. WATER BASED INK TECHNICAL DATA SHEET

February 2019

WATERBASED INK RANGE TECHNICAL INFORMATION

All printing inks are formulated using raw materials selected according to the selection Criteria mentioned in the EUPIA "Exclusion List for Printing Inks and Related Products" and article 59(10) of the REACH Regulation. (**Last updated: 15th January 2019**), as well as the Directive 2009/48/EC of the European Parliament and of the Council of 18 June 2009 on the safety of toys
These selection criteria exclude the following materials:

- Carcinogenic, mutagenic and toxic for reproduction substances and preparations classified and Labeled as toxic (T) according to the Dangerous Substances Directive 67/548/EEC with risk phrases R45, R46, R49, R60, R61;
- Substances and preparations classified and labelled as very toxic (T+) or toxic (T) according to the Dangerous Substances Directive 67/548/EEC with risk phrases R23, R24, R25, R26, R27, R28, R39, R48;
- Pigments based on and compounds of antimony, arsenic, cadmium, chromium [VI], lead, mercury and selenium;
- Soluble azo dyes which can decompose in the body to bio-available carcinogenic aromatic amines of category 1 and 2;
- Substances, listed in Regulation 2011/65/EU, Annex II (previously 2002/95/EU; RoHS)
- Substances listed in annex XVII of Regulation (EC) No 1907/2006

Excluded individual substances are e.g.:

- **APEO (Alkylphenolethoxylate); Formaldehyde; Nickel; Methylisothiazolinone.**
- **Substances like mono-, di-, tri-, tetra- en pentachlorophenol, as well as mono-, di-, tri- tetra and pentachloroanisol are used neither by us nor by our raw material suppliers;**
- **Polychlorinated biphenyls (PCB);**
- **Phthalates (eg DBP, DOP), Adipates, Phenols, Bisphenol A, F & S**

No products supplied contain 4-Methylbenzophenone, Methylnaphthalene, Nonylphenol and its ethoxylates, palm, mineral oils & Anthraquinone, genetically modified organisms or genetically engineered enzymes or hydrocarbons from mineral oil (MOSH- Mineral Oil Saturated Hydrocarbons) & (MOAH- Mineral Oil Aromatic Hydrocarbons)

Some water based inks may contain trace amounts of methylisothiazolinone (MIT) which is used as a preservative. In an extremely small number of cases, this could cause an allergic reaction to the skin.

Heavy metals
No products are used that are based on antimony, arsenic, cadmium, chrome [VI], lead, mercury or selenium.

WATERBASED INK RANGE TECHNICAL INFORMATION

Heavy metals that may be present are:

- Copper, iron, molybdenum and tungsten can be present as a composite part of Fanal pigments.
- Copper is present as a composite part in Copper phtalocyanine pigments.
- Titanium is present as Titanium dioxide as a composite part of white pigments.
- Barium can be present as a composite part in certain red pigments.
- Metallic silver inks contain aluminum, whereas bronze or gold inks contain a copper-zinc alloy.

All printing inks comply with European Packaging and Packaging Waste Directive 94/62 EC, i.e. the total sum of Cadmium, Chromium (VI), Lead and Mercury is <100 ppm.

Animal Products
Animal products are not used in the manufacture of the product either as a raw material, additives or contained within supplied raw materials. Therefore the product has not been analysed for these substances. However, based on our knowledge of the composition of the raw materials and additives and the manufacturing process involved, it can be stated with a reasonable degree of certainty that any animal substances should not be present in the product.

California Proposition 65 (also known as the Safe Drinking Water and Toxic Enforcement Act of 1986) refers to the California legislation that was intended by its authors to protect California citizens and the State's drinking water sources from chemicals known to cause cancer, birth defects or other reproductive harm, and to inform citizens about exposures to such chemicals.

Based upon Antonine Printing Inks current level of knowledge of our business operations and chemicals used, our products, in their finished form, do not require a California Proposition 65 warning label. A specific test is not carried out for each individual batch.

NOTE
All raw materials used in manufacture of our waterbased printing inks are produced under commercial conditions. Therefore, it is possible during the manufacturing process of some raw materials, trace quantities of pollutants can be introduced. This may include substances as mentioned above. Every effort is made to keep this to a minimum.

February 2019

WATERBASED INK RANGE TECHNICAL INFORMATION

Quality / Environment / Health & Safety

Antonine Printing Inks have combined quality, environment and health & safety into our Management System, certified by recognized external certification bodies. The production and quality control processes of Antonine Printing Inks are thus conforming to Quality Standard ISO 9001:2015 and environmental Standard ISO14001:2015.

The products will not, with correct use, pose any hazard under standard usage conditions. For further information, see Material Safety Data Sheets.

Signed :

Kenneth Thomson
Managing Director

Date: 04th February 2019

7. GLUE TECHNICAL DATA SHEET

EI5014/7
Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

Date of issue:17/09/2014 Revision date:18/06/2015 : Version: 1.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	:	Mixture
Product name	:	EI5014/7
Type of product	:	Adhesives, sealants
Product group	:	Trade product

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category	:	Industrial use
Industrial/Professional use spec	:	Adhesives, sealants
Use of the substance/mixture	:	Industrial use
Function or use category	:	Adhesives, sealants

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

EOC UK -branch of EOC Belgium
Tenax road; Trafford Park
M17 1JT Manchester - UK
T + 44 161 848 77 01 - F +44 161 872 60 24
safety@eocgroup.com - www.eocgroup.com

1.4. Emergency telephone number

Emergency number : +44 161 872 60 24

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH210 - Safety data sheet available on request

2.3. Other hazards

Other hazards not contributing to the classification : The components in this formulation do not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH annex II

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	:	Not applicable.
First-aid measures after skin contact	:	Remove clothing before washing. Wash with plenty of soap and water.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. In case of eye irritation consult an ophthalmologist.

First-aid measures after ingestion : If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : Not applicable.

Symptoms/injuries after skin contact : May cause moderate irritation.

Symptoms/injuries after eye contact : May cause slight irritation.

Symptoms/injuries after ingestion : Ingestion may cause nausea, vomiting and diarrhea.

4.3. Indication of any immediate medical attention and special treatment needed

After adequate first aid, no further treatment is required unless symptoms reappear.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : For extinguishing, use sand, earth, powder or foam.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : In dry state: Combustible.

Explosion hazard : Not applicable.

Reactivity in case of fire : None.

5.3. Advice for firefighters

Precautionary measures fire : Do not allow run-off from fire-fighting to enter drains or water courses.

Protection during firefighting : Special protective equipment for firefighters: Wear suitable respiratory equipment.

Other information : Combustion produces toxic gases.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes.

6.1.1. For non-emergency personnel

Protective equipment : Protective gloves made of PVC. Safety glasses. Avoid : Repeated or prolonged skin contact.

Emergency procedures : Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Protective gloves made of PVC.

Emergency procedures : Avoid contact with skin and eyes.

6.2. Environmental precautions

Prevent soil and water pollution. SECTION 12: Ecological information.

6.3. Methods and material for containment and cleaning up

For containment : Contain leaking substance, pump over in suitable containers.

Methods for cleaning up : Collect in closed and suitable containers for disposal. Clean up even minor leaks or spills and spread granular absorbent promptly. Disposal must be done according to official regulations. SECTION 13: Disposal considerations.

Other information : Comply with local regulations for disposal.

6.4. Reference to other sections

SECTION 12. SECTION 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep container in a well-ventilated place. Avoid contact with skin, eyes and clothes.

Handling temperature : 5 - 40 °C

Hygiene measures : Use good personal hygiene practices. When using do not eat, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Clean bulk tanks periodically to prevent accumulation of bacteria.

Storage conditions : Protect from sunlight. Protect against frost.

Maximum storage period : 6 months

Storage temperature : 5 - 40 °C

Heat and ignition sources : Protect against direct sunlight.

Storage area : Protect against frost.

Special rules on packaging	:	Storage in plastic is recommended. Storage in stainless steel is recommended. Storage containers must be free of contamination before use.

7.3. Specific end use(s)

The information supplied has been based upon the current level of information available, for the purpose of specifying the requirements regarding environment, health and safety in conjunction with the product. They are not to be interpreted as a warranty.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Hand protection	:	Protective gloves made of PVC
Eye protection	:	Face-shield. goggles
Skin and body protection	:	Avoid prolonged and repeated contact with skin
Respiratory protection	:	Not applicable
Environmental exposure controls	:	Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	white.
Odour	:	characteristic.
Odour threshold	:	No available data
pH	:	4 - 6
Relative evaporation rate (butylacetate=1)	:	No available data
Melting point	:	No available data
Freezing point	:	0 °C
Boiling point	:	ca 100 °C
Flash point	:	Not applicable
Auto-ignition temperature	:	No available data
Decomposition temperature	:	No available data
Flammability (solid, gas)	:	No available data
Vapour pressure	:	No available data
Relative vapour density at 20 °C	:	No available data
Relative density	:	No available data
Solubility	:	dispersible.
Log Pow	:	No available data
Viscosity, kinematic	:	No available data
Viscosity, dynamic	:	1200 - 1500 mPa.s Brookfield RV 3/20 @23°C
Explosive properties	:	None.
Oxidising properties	:	None.
Explosive limits	:	No available data
Solid content (%)		48 - 52 % @105°C

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Not applicable.

10.2. Chemical stability

Stable under normal conditions. SECTION 7: Handling and storage.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Risk of contamination.

10.5. Incompatible materials

Materials to avoid. Strong acids.

10.6. Hazardous decomposition products

On burning: release of (highly) toxic gases/vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	:	Not classified (Based on available data, the classification criteria are not met) pH: 4 - 6
Serious eye damage/irritation	:	Not classified (Based on available data, the classification criteria are not met) pH: 4 - 6
Respiratory or skin sensitisation	:	Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	:	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	:	Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	:	Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	:	Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure)	:	Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	:	Not classified (Based on available data, the classification criteria are not met)
Potential adverse human health effects and symptoms	:	None known.
Other information	:	No additional information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Material highly soluble in water.

12.2. Persistence and degradability

EI5014/7	
Persistence and degradability	Not readily biodegradable.

12.3. Bioaccumulative potential

EI5014/7	
Bioaccumulative potential	There is no bioaccumulation.

12.4. Mobility in soil

EI5014/7	
Ecology - soil	None known.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects	:	Unknown.
Additional information	:	None known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	:	Disposal must be done according to official regulations.
Waste treatment methods	:	Refer to manufacturer's information.
Sewage disposal recommendations	:	Avoid release to the environment. Refer to special instructions/safety data sheets.
Waste disposal recommendations	:	Discharge into the environment must be avoided.
Additional information	:	Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	:	Refer to manufacturer/supplier for information on recovery/recycling.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (ADN) : Not applicable
Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

No available data

- Transport by sea

No available data

- Inland waterway transport

No available data

- Rail transport

No available data

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

15.1.2. National regulations

Water hazard class (WGK) : 1 - low hazard to waters

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes:

2	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Added	
2	Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]	Removed	

Data sources : No available data.

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Other information : None.

Full text of H- and EUH-statements:

EUH210	Safety data sheet available on request

SDS EU (REACH Annex II) EOC

All recommendations for the use of our products, whether given by us , orally, or to be implied from data or test results obtained by us, are based on the current state of our knowledge at the time such recommendations are made. When additional information is obtained, these recommendations may be updated. They may also be influenced by circumstances outside our control. Notwithstanding such recommendations the user is responsible that the product as supplied by us, is suitable for the process or purpose he intends to use it. The user of the product is solely responsible for compliance with all laws and regulation applying to the use of the product. Since we cannot control the application, use or processing of the products, we do not accept responsibility therefore. The user shall ensure that the intended use of the products will not infringe in any party's intellectual property rights