

HYPLUS 100 PROCESS SERIES

TOYO Ink's Hyplus 100 process Series is a 100% solids ink, formulated without petroleum ink solvent making it an environmentally choice that is quick drying and delivers vibrant color. Hyplus 100 reduces chalking, gas ghosting and print mottling common in folding carton applications. Additionally, the Hyplus 100 series performs exceptionally well with post press processes.

TOYO Ink America, LLC is proud to offer the Hyplus 100 series to our customers. Please find attached Hyplus 100 certifications for the Soy seal, CONEG legislation compliance, ASTM F963-96a regarding toy safety, and the REACH SVHC (Substances of Very High Concern) list. In addition to these the Hyplus 100 Process Series is also a SONY Green certified ink.

If you have any further questions regarding the Hyplus 100 Process Series ink please contact your local salesman or someone in the laboratory.

Best Regards,

Sumathy Ganesh
Technical Manage
Toyo Ink America

To Whom It May Concern: Soybean oil content in TOYO SF Offset Process Inks

We hereby certify that the following SF Offset Process Ink series contain more than 20% soybean oil in their formula and these series can be categorized as “Soy ink” based upon the guideline issued by IOWA Soybean Association to specify soybean oil content in various inks.

HYPLUS 100 Process Series

HYPLUS 100 YELLOW M, L
HYPLUS 100 MAGENTA M, L
HYPLUS 100 CYAN M, L
HYPLUS 100 BLACK M, L

HYPLUS EC Process Series

HYPLUS EC YELLOW M, L
HYPLUS EC MAGENTA M, L
HYPLUS EC CYAN M, L
HYPLUS EC BLACK M, L

HYUNITY Process Series

HYUNITY YELLOW M, L
HYUNITY MAGENTA M, L
HYUNITY CYAN M, L
HYUNITY BLACK M, L

AQUALESS ULTRA Process

AQUALESS ULTRA YELLOW M, L
AQUALESS ULTRA MAGENTA M, L
AQUALESS ULTRA CYAN M, L
AQUALESS ULTRA BLACK M, L

CERTIFICATE

Product name: HYPLUS 100 YELLOW
HYPLUS 100 MAGENTA
HYPLUS 100 CYAN
HYPLUS 100 BLACK
EX HYPLUS 100 BLACK

We hereby certify that above mentioned products comply with CONEG legislation.

CONEG legislation prohibits the intentional use of lead, cadmium, mercury, and hexavalent chromium in packaging or individual packaging components, such as inks, adhesives, or labels, of which the material content of the soluble materials is over the excess of levels by weight of the contained solid given in Table 1 and analysis results of above mentioned products is shown in Table 2.

Table 1. Maximum Soluble Migrated Element in ppm (mg/kg)

Antimony	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium
(Sb)	(As)	(Ba)	(Cd)	(Cr)	(Pb)	(Hg)	(Se)
100	100	1000	100	100	100	100	100

CERTIFICATE

Product name: HYPLUS 100 YELLOW

HYPLUS 100 MAGENTA

HYPLUS 100 CYAN

HYPLUS 100 BLACK

EX HYPLUS 100 BLACK

We hereby certify that above mentioned products comply with ASTM “Standard Consumer Safety Specification on toy Safety” F963-96a.

According to ASTM F963-96a, surface coating materials shall not contain the compounds of Antimony, Arsenic, Barium, Cadmium, Chromium, Lead, Mercury or Selenium, of which the material content of the soluble materials is over the excess of levels by weight of the contained solid given in Table 1 and analysis results of above mentioned products is shown in Table 2.

Table 1. Maximum Soluble Migrated Element in ppm (mg/kg)

Antimony	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium
(Sb)	(As)	(Ba)	(Cd)	(Cr)	(Pb)	(Hg)	(Se)
60	25	1000	75	60	90	60	500

Table 2. Analysis results of HYPLUS EC Process series (ppm)

	Sb	As	Ba	Cd	Cr	Pb	Hg	Se
Yellow	ND	ND	16.4	ND	ND	ND	ND	ND
Magenta	ND	ND	2.5	ND	ND	ND	ND	ND
Cyan	ND	ND	0.1	ND	ND	ND	ND	ND
Black	ND	ND	0.2	ND	ND	ND	ND	ND
EX Black	ND	ND	0.2	ND	ND	ND	ND	ND

Note: ND = Not Detected

CERTIFICATE

Product name:

HYPLUS 100 YELLOW
HYPLUS 100 MAGENTA
HYPLUS 100 CYAN
HYPLUS 100 BLACK
HYPLUS 100 FON YELLOW
HYPLUS 100 FON MAGENTA
HYPLUS 100 FON CYAN
HYPLUS 100 FON BLACK

We hereby certify that the following 15 Substances of Very High Concern(SVHC) are not used in the above-mentioned products.

Substances	CAS No.
1) Anthracene	; 120-12-7
2) 4,4'-Diaminodiphenylmethane	; 101-77-9
3) Dibutyl phthalate (DBP)	; 84-74-2
4) Cobalt dichloride	; 7646-79-9
5) Diarsenic pentaoxide	; 1303-28-2
6) Diarsenic trioxide	; 1327-53-3
7) Sodium dichromate	; 7789-12-0, 10588-01-9
8) 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	; 81-15-2
9) Bis(2-ethyl(hexyl)phthalate) (DEHP)	; 117-81-7
10) Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α -HBCDD, β -HBCDD, γ -HBCDD)	; 25367-99-4 and 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8)
11) Alkanes,C10-13,chloro (Short Chain Chlorinated Paraffins)	; 85535-84-8
12) Bis (tributyltin) oxide	; 56-35-9
13) Lead hydrogen arsenate	; 7784-40-9
14) Benzyl butyl phthalate	; 85-68-7
15) Triethyl arsenate	; 15606-95-8