

# FACT SHEET

Date of issue: July 202

Product Name: Guardian Polymer Banknote(s)

Version:3.1

## SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>Supplier:</b>	CCL Secure
<b>Office Address(s):</b>	Asian Pacific: 1-19 Potter St, Craigieburn VIC 3064 EMEA: Station Road, Wigton, Cumbria CA7 9BG, United Kingdom
<b>Internet address:</b>	<a href="http://www.cclsecure.com">www.cclsecure.com</a>
<b>Product:</b>	Polymer Banknote(s)
<b>Product Use:</b>	As banknotes

## SECTION 2: HAZARD(S) IDENTIFICATION

This product is **NOT** classified as a **HAZARDOUS SUBSTANCE** in accordance with Globally Harmonised System of Classification and Labelling of Chemicals (GHS). This product is **NOT** classified as a **DANGEROUS GOOD** according to the Australian Dangerous Goods (ADG) Code.

## SECTION 3: COMPOSITION & INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Proportion
Guardian® Substrate – Polypropylene	Not Available	>80% w/w
Varnish Ink(s) – Mixture	Not Available	<10% w/w
Offset Ink(s) – Mixture	Not Available	<5% w/w
Intaglio Ink(s) – Mixture	Not Available	<5% w/w
Non-hazardous ingredients	Not Available	To 100% w/w
<b>Total</b>		<b>100% w/w</b>

## SECTION 4: FIRST AID MEASURES

<b>General:</b>	First aid is normally only needed for thermal burns and for inhalation of smoke from burning material. Treat the injury the same as a thermal burn or smoke inhalation.
<b>Scheduled Poisons:</b>	Not applicable
<b>First Aid Facilities Required:</b>	Not applicable

**SECTION 5: HANDLING AND STORAGE**

**Dust:**

Operations that produce dusts (e.g. compounding, slitting, cutting and grinding) should be controlled so that the appropriate exposure standard for dust is not exceeded. A build-up of fine dust in a confined space can pose an

explosive hazard if sources of ignition are present.

**Heating during processing:**

Extra care should be taken to prevent burns from contact with hot material. All polymers degrade to some extent at their processing temperature, an effect which increases with increasing temperature. Polypropylene has an upper melting point of 175°C.

**Information about Fire & Explosion Protection:**

Avoid sources of ignition – (open flame).

**Conditions for Safe Storage, Including any Incompatibilities:**

No special conditions are required for the storage of polymer banknotes, but it is recommended that dry conditions below 30°C.

**SECTION 6: EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**General:** Polymer banknotes have a slight odour due to residues from the printing process.

**Exposure Control Measures:** Over a period of time the odour will reduce. VOC < 600 mg/m<sup>2</sup>, (<0.8%). Ensure the following exposure standards are not exceeded using appropriate engineering controls (where possible) or individual protection measures including Personal Protective Equipment (PPE).

**Exposure Standards:** National Occupational Exposure Limits as published by Safe Work Australia for this product;  
**Time-weighted Average (TWA):** None established  
**Short Term Exposure Limit (STEL):** None established

National Occupational Exposure Limits as published by Safe Work Australia on basis of ingredients: see below.

Ingredient	TWA mg/m <sup>3</sup>	TWA ppm	STEL mg/m <sup>3</sup>	STEL ppm
Inhalable dust	10	-	-	-
Respirable dust	4	-	-	-
n-Butyl Acetate (n-BA)	713	150	950	200
Methyl Ethyl Ketone (MEK)	445	150	890	300
Methyl Isobutyl Ketone (MiBK)	205	50	307	75
Titanium Dioxide	10		this value is for inhalable dust containing no asbestos and < 1% crystalline silica	
4-(2-hydroxyethoxy) - Phenyl -(2-hydroxy-2 - Propyl)-Ketone	10	1	-	-
2,2-dimethoxy-1,2-diphenylethan-1-one	1	-	-	-
Short Chain Carbonyls (C4 – C6; 70-120 g/mol)	176	50	-	-
Long Chain Carbonyls (C8 – C12; 140 -220 g/mol)	None established			
Alkanes; branched and linear (C13 – C25; 170 – 360 g/mol)	None established			

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## SECTION 7: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Opaque plastic film with applied colour
<b>Odour:</b>	Slight odour
<b>Odour Threshold:</b>	Not available
<b>pH:</b>	Not applicable
<b>Melting Point/ Freezing Point:</b>	175 °C
<b>Initial Boiling Point/ Boiling Range:</b>	Not applicable
<b>Flashpoint:</b>	Not applicable
<b>Evaporation Rate:</b>	Not available
<b>Flammability (solid, gas):</b>	Not applicable
<b>Upper/Lower Flammability or Explosive Limits:</b>	Not available
<b>Vapour Pressure:</b>	Not available
<b>Vapour Density:</b>	Not applicable
<b>Relative Density:</b>	Ca. 1.2 @ 20°C (calculated, based on coated film)
<b>Solubility:</b>	Insoluble in water
<b>Partition Coefficient: n-octanol/water:</b>	Not available

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Auto-ignition Temperature:</b>	Not available
<b>Minimum Ignition Temperature:</b>	375°C (ASTM D1929-96) (based on uncoated film)
<b>Decomposition Temperature:</b>	> 390°C (based on uncoated film)
<b>Upper Melt Temperature:</b>	170-175°C (ASTM E794-85) (based on uncoated film)
<b>Viscosity:</b>	Not applicable
<b>Specific Heat:</b>	1.93 kJ/kg @ 25°C (based on uncoated film)
<b>Thermal Conductivity:</b>	0.21 W/mK (based on uncoated film)
<b>Limited Oxygen Index:</b>	17.4-18.0 % O <sub>2</sub> (ASTM D863) (based on uncoated film)
<b>VOC:</b>	< 600 mg/m <sup>2</sup> (<0.8%)

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## SECTION 13: DISPOSAL CONSIDERATIONS

**Disposal methods:**

**Product:** Scrap polymer banknotes generated through processing, e.g. slitting/shredding, should be swept up and disposed of in drums or plastic bags and may be disposed of in accordance with local regulatory requirements. Ideally recycled into long life PP products.

**Individual Protection Measures:** None required

## SECTION 14: TRANSPORT INFORMATION

**General:** This material is not a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, IATA, IMDG

**UN Number:** Not applicable

**UN Proper Shipping Name or Technical Name:** Not applicable

**END OF FACT SHEET**