



**BUREAU  
VERITAS**

Technical Report: (9617) 356-0052  
Date Received: DECEMBER 22, 2017

DECEMBER 26, 2017  
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MALOU CLAESSENS  
WAVE ECO-SOLUTIONS

\_\_\_\_\_, CDMX, MEXICO

Sample Description:	BIO-BASED POLYMER COMPOUND MATERIAL		
Vendor:	WAVE ECO-SOLUTIONS	Sample Size:	/
Manufacturer:	/	VPN:	/
Buyer:	WAVE ECO-SOLUTIONS	SKN/SKU No.:	/
Agent:	/		
Labeled Age Grade:	/	PO No.:	/
Appropriate Age Grade:	/	Ref #:	/
Client Specified Age Grade:	/	Country of Origin:	/
Tested Age Grade:	/	Assortment No.:	/
UPC Code:	/	Department No.:	/
Phase of Production:	PRODUCTION	ITEM#:	/
Color:	/	Date of Production:	AUGUST 2017
Program:	/	Model/Style#:	/
Previous No:	N/A	Country of Destination:	/

**TEST:**

- FTIR Plastic identification

**EXECUTIVE SUMMARY:**

The sample(s) was tested to the following requirement(s) and the data provided is for informational purposes only:

- The FTIR Plastic identification test of the client's specification.

**Note(s):**

- This report includes the test result(s) which was conducted & reviewed by Analytical department.



If there is any question regarding this report, please contact the following lab personnel:

**Administrative inquiries, please contact:**

Primary Contact: Ryan Nguyen, Tel: 84-028-37421-604 ~ 6, Ext: 112; email: ryan.nguyen@vn.bureauveritas.com  
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**Technical inquiries, please contact:**

Primary Contact: Terry Nguyen, Tel: 84-028-37421-604 ~ 6, Ext: 313; email: terry.nguyen@vn.bureauveritas.com  
Back-up Contact: Ron Nguyen, Tel: 84-028-37421-604 ~ 6, Ext: 313; email: ron.nguyen@vn.bureauveritas.com

**BUREAU VERITAS CONSUMER PRODUCTS SERVICES (VN) LTD.**

A handwritten signature in blue ink, appearing to read 'Terry Nguyen', with a horizontal line underneath.

**TERRY NGUYEN**  
**AUTHORIZED REPORT APPROVER – HARDLINE, TOYS & JUVENILE PRODUCTS DIVISION**



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**SAMPLE DESCRIPTION ASSIGNED BY LABORATORY**

Test Item(s)	Sample description/ Location	Material	Style(s)
I001	Bio-based polymer compound material	Bio-based polymer compound film	Film

**TEST RESULT**

**Qualitative Plastic Identification (FT-IR)**

Test Item(s)	Result	Conclusion
I001	Non Presence	DATA

**Remark:**

\*The materials listed in below table are non-present in this sample

**APPENDIX**

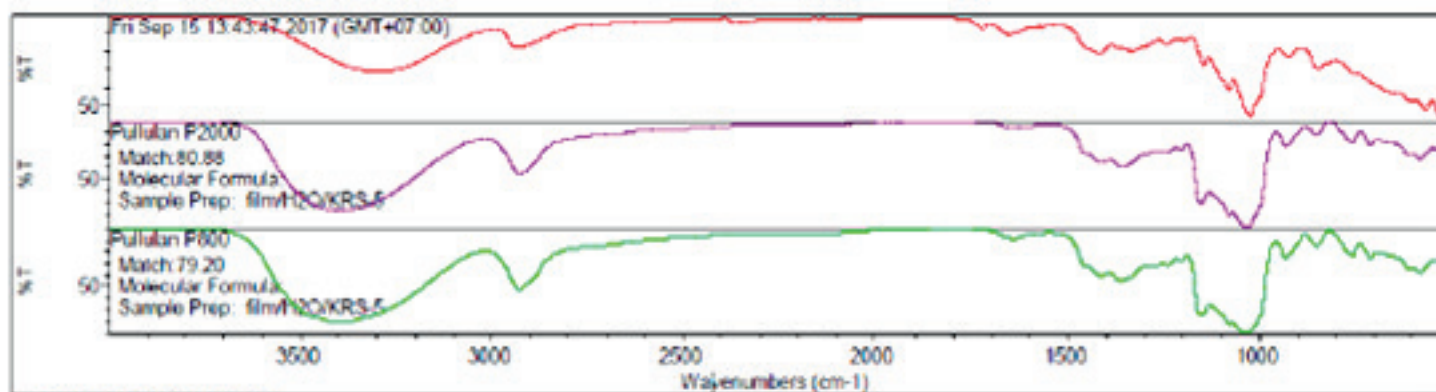
<b>List of material:</b>			
No.	Name of Analyte(s)	No.	Name of Analyte(s)
1	Polyethylene (PE)	5	High Density Polyethylene(HDPE)
2	Polypropylene (PP)	6	Low Density Polyethylene(LDPE)
3	Polyethyleneterephthalate (PET or PETE)	7	Polystyrene(PS)
4	Polyvinyl chloride (V or Vynil or PVC)	-	-



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## FTIR:

Search results for: Fri Sep 15 13:42:47 2017 (GMT+07:00)  
Date: Fri Sep 15 13:45:16 2017 (GMT+07:00)  
Search algorithm: Correlation  
Regions searched: 3049.50-649.92



### Search results list of matches

Index	Match	Compound Name	Library Name
1	1079	80.88 Pullulan F2000	HR Hummel Polymer and Additives
2	1078	79.20 Pullulan F800	HR Hummel Polymer and Additives
3	792	54.95 Crystalline calcium phosphate (Canis Vulpes)	HR Hummel Polymer and Additive
4	1244	40.92 Methanol	HR Hummel Polymer and Additives
5	73	40.43 Methyl alcohol	HR Aldrich Solvents
6	575	47.21 Poly(vinyl ethoxide/vinyl alcohol), 1:1, acetalized	HR Hummel Polymer and Additives
7	1213	47.20 Propargyl alcohol, 2-Propyn-1-ol	HR Hummel Polymer and Additives
8	700	47.00 Ursus Spelaeus	HR Hummel Polymer and Additives
9	73	46.72 Poly(vinyl alcohol), 99.7% hydrolyzed	HR Spectra Polymers and Plasticizers by ATR
10	1737	46.57 2-Propyn-1-ol	HR Hummel Polymer and Additives



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