



# EVALUATION REPORT

**Send To: C0499403**

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 Canada

**Facility: C0499405**

Franke Kindred Canada Ltd. DBA FIFO  
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Result	PASS	Report Date	27-JUL-2021
Customer Name	FIFO Innovations		
Tested To	NSF FDCON		
Description	Various components   Sauce Gun Bottle, Portion Pal, and FIFO Bottle		
Test Type	Special Testing		
Job Number	J-00390086		
Project Number	W0671123		
Project Manager	Steven Chovanec		

**Thank you for having your product tested by NSF International.**

Please contact your Project Manager if you have any questions or concerns pertaining to this report.

**Report Authorization** 

**Date** 27-JUL-2021

Carolyn Gilliland - Technical Manager, Food Equipment



**General Information**

Standard: NSF FDCON

Physical Description of Sample: Various components

Product Name / Model Number: Sauce Gun Bottle, Portion Pal, and FIFO Bottle

Sample Id: <b>S-0001811870</b>	1-Hole Portion Pal Cap – Part # PPC1-1	1-Hole Sauce Gun Bottle Cap – Part # GBC1-NV-1
Sampled Date: 05/11/2021	2-Hole Portion Pal Cap – Part # PPC2-1	3-Hole Sauce Gun Bottle Cap – Part # GBC3-NV-1
Received Date: 05/11/2021	3-Hole Portion Pal Cap – Part # PPC3-1	5- Hole Sauce Gun Bottle Cap – Part # GBC5-NV-1
	5-Hole Portion Pal Cap – Part # PPC5-1	Extra Large Sauce Gun Bottle Cap – Part # GBC1XL-NV-1
	Extra Large Portion Pal Cap – Part # PPC1XL-1	

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Food Contact Exposure Sum Test Code				
Mode of Exposure	Total Immersion			
Volume of Simulant	108	Complete	108	mL
Food Simulant	10% Ethanol	Complete		
Temperature of Exposure	40	Complete	40	degrees C
Exposure Time - days	10	Complete	10	days
Surface Area Exposed, EU	1.1	Complete	1.1	sq. dm.

Sample Id: **S-0001811871**  
 Description: E1 1st Period-10% ETOH  
 Sampled Date: 05/11/2021  
 Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Overall Migration Determination				
Overall migration, Avg., in mg/dmsq	ND(1)	Complete	ND(1)	mg/sq. dm.

Sample Id: <b>S-0001811876</b>	1-Hole Portion Pal Cap – Part # PPC1-1	1-Hole Sauce Gun Bottle Cap – Part # GBC1-NV-1
Sampled Date: 05/11/2021	2-Hole Portion Pal Cap – Part # PPC2-1	3-Hole Sauce Gun Bottle Cap – Part # GBC3-NV-1
Received Date: 05/11/2021	3-Hole Portion Pal Cap – Part # PPC3-1	5- Hole Sauce Gun Bottle Cap – Part # GBC5-NV-1
	5-Hole Portion Pal Cap – Part # PPC5-1	Extra Large Sauce Gun Bottle Cap – Part # GBC1XL-NV-1
	Extra Large Portion Pal Cap – Part # PPC1XL-1	

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Food Contact Exposure Sum Test Code				
Mode of Exposure	Total Immersion			
Volume of Simulant	108	Complete	108	mL
Food Simulant	3% Acetic Acid			
Temperature of Exposure	40	Complete	40	degrees C
Exposure Time - days	10	Complete	10	days
Surface Area Exposed, EU	1.1	Complete	1.1	sq. dm.

Sample Id: **S-0001811877**  
 Description: E1 1st Period-3% Acetic Acid  
 Sampled Date: 05/11/2021  
 Received Date: 05/11/2021



Sample Id: S-0001811877 (Continued)

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Overall Migration Determination				
Overall migration, Avg., in mg/dmsq	ND(1)	Complete	ND(1)	mg/sq. dm.

Sample Id: S-0001811882	1-Hole Portion Pal Cap – Part # PPC1-1	1-Hole Sauce Gun Bottle Cap – Part # GBC1-NV-1
Sampled Date: 05/11/2021	2-Hole Portion Pal Cap – Part # PPC2-1	3-Hole Sauce Gun Bottle Cap – Part # GBC3-NV-1
Received Date: 05/11/2021	3-Hole Portion Pal Cap – Part # PPC3-1	5- Hole Sauce Gun Bottle Cap – Part # GBC5-NV-1
	5-Hole Portion Pal Cap – Part # PPC5-1	Extra Large Sauce Gun Bottle Cap – Part # GBC1XL-NV-1
	Extra Large Portion Pal Cap – Part # PPC1XL-1	

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Food Contact Exposure Sum Test Code				
Mode of Exposure	Total Immersion			
Volume of Simulant	100	Complete	100	mL
Food Simulant	Olive Oil	Complete		
Temperature of Exposure	40	Complete	40	degrees C
Exposure Time - days	10	Complete	10	days
Surface Area Exposed, EU	1.1	Complete	1.1	sq. dm.

**Sample Notes** [S-0001811882]:

Testing was performed by an approved NSF International subcontract laboratory.

Sample Id: S-0001811883  
Description: E1 1st Period - Olive Oil-EU FC  
Sampled Date: 05/11/2021  
Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Overall Migration Determination				
Overall Migration in mg/dm sq	ND(5)	Complete	ND(5)	mg/sq.dm.

**Sample Notes** [S-0001811883]:

Testing was performed by an approved NSF International subcontract laboratory.

Sample Id: S-0001811886	1-Hole Portion Pal Cap – Part # PPC1-1	1-Hole Sauce Gun Bottle Cap – Part # GBC1-NV-1
Sampled Date: 05/11/2021	2-Hole Portion Pal Cap – Part # PPC2-1	3-Hole Sauce Gun Bottle Cap – Part # GBC3-NV-1
Received Date: 05/11/2021	3-Hole Portion Pal Cap – Part # PPC3-1	5- Hole Sauce Gun Bottle Cap – Part # GBC5-NV-1
	5-Hole Portion Pal Cap – Part # PPC5-1	Extra Large Sauce Gun Bottle Cap – Part # GBC1XL-NV-1
	Extra Large Portion Pal Cap – Part # PPC1XL-1	

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Food Contact Exposure Sum Test Code				
Mode of Exposure	Total Immersion			
Volume of Simulant	180	Complete	180	mL
Food Simulant	10% Ethanol	Complete		



Sample Id: **S-0001811886** (Continued)

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab (Continued)</b>				
Temperature of Exposure	70	Complete	70	degrees C
Exposure Time - days	3	Complete	3	days
Surface Area Exposed, EU	1.1	Complete	1.1	sq. dm.

Sample Id: **S-0001811887**  
 Description: Exposure Solution  
 Sampled Date: 05/17/2021  
 Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* UV/Visible Scan				
Absorbance @ 200-900 nm	Not Observed			
Note: [ C3153/1 ]				
The 10% ethanol exposure solution did not give absorbance in the visible range of the spectrum, thus the material is colorfast in 10% ethanol.				

Sample Id: <b>S-0001811888</b>	1-Hole Portion Pal Cap – Part # PPC1-1	1-Hole Sauce Gun Bottle Cap – Part # GBC1-NV-1
Sampled Date: 05/11/2021	2-Hole Portion Pal Cap – Part # PPC2-1	3-Hole Sauce Gun Bottle Cap – Part # GBC3-NV-1
Received Date: 05/11/2021	3-Hole Portion Pal Cap – Part # PPC3-1	5- Hole Sauce Gun Bottle Cap – Part # GBC5-NV-1
	5-Hole Portion Pal Cap – Part # PPC5-1	Extra Large Sauce Gun Bottle Cap – Part # GBC1XL-NV-1
	Extra Large Portion Pal Cap – Part # PPC1XL-1	

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Food Contact Exposure Sum Test Code				
Mode of Exposure	Total Immersion			
Volume of Simulant	270	Complete	270	mL
Food Simulant	3% Acetic Acid			
Temperature of Exposure	70	Complete	70	degrees C
Exposure Time - days	3	Complete	3	days
Surface Area Exposed, EU	1.6	Complete	1.6	sq. dm.

Sample Id: **S-0001811889**  
 Description: E1, 3% Acetic Acid Exposure Soln  
 Sampled Date: 05/21/2021  
 Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
EU 10/2011 Metals by ICPMS/ICP-AES				
Aluminum	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Antimony	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Arsenic	ND(0.001)	ND(0.001)	ND(0.001)	mg/L



Sample Id: **S-0001811889** ( Continued )

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab ( Continued )</b>				
Barium	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Cadmium	ND(0.0002)	ND(0.0002)	ND(0.0002)	mg/L
Chromium	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Cobalt	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Copper	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Europium	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Gadolinium	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Lanthanum	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Terbium	ND(0.010)	ND(0.010)	ND(0.010)	mg/L
Iron	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Lead	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Lithium	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Manganese	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Mercury	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Nickel	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Zinc	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
* UV/Visible Scan				
Absorbance @ 200-900 nm	Not Observed			
Note: [ C3153/1 ]				
The 3% acetic acid exposure solution did not give absorbance in the visible range of the spectrum, thus the material is colorfast in 3% acetic acid.				

Sample Id: **S-0001811892**  
 Description: E2, 3% Acetic Acid Exposure Soln  
 Sampled Date: 05/24/2021  
 Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
EU 10/2011 Metals by ICPMS/ICP-AES				
Aluminum	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Antimony	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Barium	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Cobalt	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Copper	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Europium	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Gadolinium	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Lanthanum	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Terbium	ND(0.010)	ND(0.010)	ND(0.010)	mg/L
Iron	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Lithium	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Manganese	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Nickel	ND(0.001)	ND(0.001)	ND(0.001)	mg/L



Sample Id: **S-0001811892** (Continued)

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab (Continued)</b>				
Zinc	ND(0.05)	ND(0.05)	ND(0.05)	mg/L

Sample Id: **S-0001811893**  
 Description: E3, 3% Acetic Acid Exposure Soln  
 Sampled Date: 05/27/2021  
 Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
EU 10/2011 Metals by ICPMS/ICP-AES				
Aluminum	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Antimony	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Barium	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Cobalt	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Copper	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Europium	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Gadolinium	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Lanthanum	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Terbium	ND(0.010)	ND(0.010)	ND(0.010)	mg/L
Iron	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Lithium	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Manganese	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Nickel	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Zinc	ND(0.05)	ND(0.05)	ND(0.05)	mg/L

Sample Id: <b>S-0001811894</b>	1-Hole Portion Pal Cap – Part # PPC1-1	1-Hole Sauce Gun Bottle Cap – Part # GBC1-NV-1
Sampled Date: 05/11/2021	2-Hole Portion Pal Cap – Part # PPC2-1	3-Hole Sauce Gun Bottle Cap – Part # GBC3-NV-1
Received Date: 05/11/2021	3-Hole Portion Pal Cap – Part # PPC3-1	5-Hole Sauce Gun Bottle Cap – Part # GBC5-NV-1
	5-Hole Portion Pal Cap – Part # PPC5-1	Extra Large Sauce Gun Bottle Cap – Part # GBC1XL-NV-1
	Extra Large Portion Pal Cap – Part # PPC1XL-1	

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Food Contact Exposure Sum Test Code		Complete		
Mode of Exposure	Total Immersion			
Volume of Simulant	100	Complete	100	mL
Food Simulant	3% Acetic Acid			
Temperature of Exposure	70	Complete	70	degrees C
Exposure Time - days	3	Complete	3	days
Surface Area Exposed, EU	1.1	Complete	1.1	sq. dm.

**Sample Notes** [S-0001811894]:

Testing was performed by an approved NSF International subcontract laboratory.

Sample Id: **S-0001811895**



Sample Id: **S-0001811895** (Continued)  
 Description: E1, 3% Acetic Acid Exposure Soln  
 Sampled Date: 05/11/2021  
 Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
*Specific Migrant Testing in Food Simulant - Subcontracted				
Primary Aromatic Amines by LC-HRMS	ND(1.1)	Complete	ND(1.1)	ug/kg

**Sample Notes** [S-0001811895]:

Specific Primary Aromatic Amines by LC-HRMS:

- 4,4'-methylene-bis-(2-chloro-aniline) (101-14-4)
- 4,4'-methylenedianiline (101-77-9)
- 4,4'-oxydianiline (101-80-4)
- 4-chloroaniline (106-47-8)
- 3,3'-dimethoxybenzidine (119-90-4)
- 3,3'-dimethylbenzidine (119-93-7)
- p-cresidine (120-71-8)
- 2,4,5-trimethylaniline (137-17-7)
- 4,4'-thiodianiline (139-65-1)
- 4-aminoazobenzene (60-09-3)
- 2,4-diaminoanisole (615-05-4)
- 4,4'-methylenedi-o-toluidine (838-88-0)
- o-anisidine (90-04-0)
- 2-naphthylamine (91-59-8)
- 3,3'-dichlorobenzidine (91-94-1)
- 4-aminobiphenyl (92-67-1)
- benzidine (92-87-5)
- o-toluidine (95-53-4)
- 4-chloro-o-toluidine (95-69-2)
- 2,4-diaminotoluene (95-80-7)
- o-aminoazotoluene (97-56-3)
- 5-nitro-o-toluidine (99-55-8)

Primary Aromatic Amines scan performed by spectrophotometric method: ND (0.010 mg/kg)

Testing was performed by an approved NSF International subcontract laboratory.

Sample Id: <b>S-0001811898</b>	1-Hole Portion Pal Cap – Part # PPC1-1	1-Hole Sauce Gun Bottle Cap – Part # GBC1-NV-1
Sampled Date: 05/11/2021	2-Hole Portion Pal Cap – Part # PPC2-1	3-Hole Sauce Gun Bottle Cap – Part # GBC3-NV-1
Received Date: 05/11/2021	3-Hole Portion Pal Cap – Part # PPC3-1	5-Hole Sauce Gun Bottle Cap – Part # GBC5-NV-1
	5-Hole Portion Pal Cap – Part # PPC5-1	Extra Large Sauce Gun Bottle Cap – Part # GBC1XL-NV-1
	Extra Large Portion Pal Cap – Part # PPC1XL-1	

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Food Contact Exposure Sum Test Code				
Mode of Exposure	Total Immersion			
Volume of Simulant	180	Complete	180	mL
Food Simulant	Sunflower Seed Oil			
Temperature of Exposure	70	Complete	70	degrees C
Exposure Time - days	3	Complete	3	days
Surface Area Exposed, EU	1.1	Complete	1.1	sq. dm.

Sample Id: **S-0001811899**  
 Description: Exposure Solution  
 Sampled Date: 05/17/2021



Sample Id: **S-0001811899** (Continued)  
 Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* UV/Visible Scan				
Absorbance @ 200-900 nm	Not Observed			
Note: [ C3153/1 ]				
The sunflower seed oil exposure solution did not give absorbance in the visible range of the spectrum, thus the material is colorfast in sunflower seed oil.				

Sample Id: <b>S-0001811900</b>	1-Hole Portion Pal Cap – Part # PPC1-1	1-Hole Sauce Gun Bottle Cap – Part # GBC1-NV-1
Sampled Date: 05/11/2021	2-Hole Portion Pal Cap – Part # PPC2-1	3-Hole Sauce Gun Bottle Cap – Part # GBC3-NV-1
Received Date: 05/11/2021	3-Hole Portion Pal Cap – Part # PPC3-1	5- Hole Sauce Gun Bottle Cap – Part # GBC5-NV-1
	5-Hole Portion Pal Cap – Part # PPC5-1	Extra Large Sauce Gun Bottle Cap – Part # GBC1XL-NV-1
	Extra Large Portion Pal Cap – Part # PPC1XL-1	

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Food Contact Exposure Sum Test Code				
Mode of Exposure	Total Immersion			
Volume of Simulant	216	Complete	216	mL
Food Simulant	Tap Water	Complete		
Temperature of Exposure	60	Complete	60	degrees C
Exposure Time - days	3	Complete	3	days
Surface Area Exposed, EU	1.1	Complete	1.1	sq. dm.

Sample Id: **S-0001811901**  
 Description: Exposure Solution  
 Sampled Date: 05/11/2021  
 Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* EU Sensory Analysis according to DIN 10955				
Odor Median	0	Complete		
Taste Median	0	Complete		
Odor	No perceptible difference from the control			
Odor Evaluation	Pass	Complete		
Taste	No perceptible difference from the control			
Taste Evaluation	Pass	Complete		

Sample Id: <b>S-0001811903</b>	FIFO Bottle 12oz – Part # 2010-120-XX
Sampled Date: 05/11/2021	FIFO Bottle 16oz – Part # 2010-160-XX
Received Date: 05/11/2021	FIFO Bottle 20oz – Part # 2010-200-XX
	FIFO Bottle 24oz – Part # 2010-240-XX
	FIFO Bottle 32oz – Part # 2010-320-XX

Testing Parameter	Sample	Control	Result	Units





Sample Id: **S-0001811903** (Continued)

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Food Contact Exposure Sum Test Code				
Mode of Exposure	Total Immersion			
Volume of Simulant	146	Complete	146	mL
Food Simulant	10% Ethanol			
Temperature of Exposure	40	Complete	40	degrees C
Exposure Time - days	10	Complete	10	days
Surface Area Exposed, EU	1.5	Complete	1.5	sq. dm.

Sample Id: **S-0001811904**  
 Description: E1 1st Period-10% ETOH  
 Sampled Date: 05/11/2021  
 Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Overall Migration Determination				
Overall migration, Avg., in mg/dmsq	ND(1)	Complete	ND(1)	mg/sq. dm.

Sample Id: **S-0001811907**  
 Sampled Date: 05/11/2021  
 Received Date: 05/11/2021

FIFO Bottle 12oz – Part # 2010-120-XX  
 FIFO Bottle 16oz – Part # 2010-160-XX  
 FIFO Bottle 20oz – Part # 2010-200-XX  
 FIFO Bottle 24oz – Part # 2010-240-XX  
 FIFO Bottle 32oz – Part # 2010-320-XX

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Food Contact Exposure Sum Test Code				
Mode of Exposure	Total Immersion			
Volume of Simulant	146	Complete	146	mL
Food Simulant	3% Acetic Acid			
Temperature of Exposure	40	Complete	40	degrees C
Exposure Time - days	10	Complete	10	days
Surface Area Exposed, EU	1.5	Complete	1.5	sq. dm.

Sample Id: **S-0001811908**  
 Description: E1 1st Period-3% Acetic Acid  
 Sampled Date: 05/11/2021  
 Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Overall Migration Determination				
Overall migration, Avg., in mg/dmsq	ND(1)	Complete	ND(1)	mg/sq. dm.



Sample Id: **S-0001811912**  
 Sampled Date: 05/11/2021  
 Received Date: 05/11/2021

FIFO Bottle 12oz – Part # 2010-120-XX  
 FIFO Bottle 16oz – Part # 2010-160-XX  
 FIFO Bottle 20oz – Part # 2010-200-XX  
 FIFO Bottle 24oz – Part # 2010-240-XX  
 FIFO Bottle 32oz – Part # 2010-320-XX

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Food Contact Exposure Sum Test Code				
Mode of Exposure	Total Immersion			
Volume of Simulant	100	Complete	100	mL
Food Simulant	Olive Oil	Complete		
Temperature of Exposure	40	Complete	40	degrees C
Exposure Time - days	10	Complete	10	days
Surface Area Exposed, EU	1.0	Complete	1.0	sq. dm.

**Sample Notes** [S-0001811912]:

Testing was performed by an approved NSF International subcontract laboratory.

Sample Id: **S-0001811913**  
 Description: E1 1st Period - Olive Oil-EU FC  
 Sampled Date: 05/11/2021  
 Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Overall Migration Determination				
Overall Migration in mg/dm sq	ND(5)	Complete	ND(5)	mg/sq.dm.

**Sample Notes** [S-0001811913]:

Testing was performed by an approved NSF International subcontract laboratory.

Sample Id: **S-0001811916**  
 Sampled Date: 05/11/2021  
 Received Date: 05/11/2021

FIFO Bottle 12oz – Part # 2010-120-XX  
 FIFO Bottle 16oz – Part # 2010-160-XX  
 FIFO Bottle 20oz – Part # 2010-200-XX  
 FIFO Bottle 24oz – Part # 2010-240-XX  
 FIFO Bottle 32oz – Part # 2010-320-XX

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Food Contact Exposure Sum Test Code				
Mode of Exposure	Total Immersion			
Volume of Simulant	164	Complete	164	mL
Food Simulant	3% Acetic Acid			
Temperature of Exposure	70	Complete	70	degrees C
Exposure Time - days	3	Complete	3	days
Surface Area Exposed, EU	0.98	Complete	0.98	sq. dm.

Sample Id: **S-0001811917**  
 Description: E1, 3% Acetic Acid Exposure Soln  
 Sampled Date: 05/21/2021  
 Received Date: 05/11/2021



Sample Id: S-0001811917 (Continued)

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
EU 10/2011 Metals by ICPMS/ICP-AES				
Aluminum	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Antimony	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Arsenic	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Barium	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Cadmium	ND(0.0002)	ND(0.0002)	ND(0.0002)	mg/L
Chromium	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Cobalt	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Copper	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Europium	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Gadolinium	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Lanthanum	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Terbium	ND(0.010)	ND(0.010)	ND(0.010)	mg/L
Iron	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Lead	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Lithium	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Manganese	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Mercury	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Nickel	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Zinc	ND(0.05)	ND(0.05)	ND(0.05)	mg/L

Sample Id: S-0001811918  
Description: E2, 3% Acetic Acid Exposure Soln  
Sampled Date: 05/24/2021  
Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
EU 10/2011 Metals by ICPMS/ICP-AES				
Aluminum	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Antimony	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Barium	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Cobalt	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Copper	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Europium	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Gadolinium	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Lanthanum	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Terbium	ND(0.010)	ND(0.010)	ND(0.010)	mg/L
Iron	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Lithium	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Manganese	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Nickel	ND(0.001)	ND(0.001)	ND(0.001)	mg/L



Sample Id: **S-0001811918** (Continued)

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab (Continued)</b>				
Zinc	ND(0.05)	ND(0.05)	ND(0.05)	mg/L

Sample Id: **S-0001811919**  
 Description: E3, 3% Acetic Acid Exposure Soln  
 Sampled Date: 05/27/2021  
 Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
EU 10/2011 Metals by ICPMS/ICP-AES				
Aluminum	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Antimony	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Barium	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Cobalt	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Copper	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Europium	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Gadolinium	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Lanthanum	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Terbium	ND(0.010)	ND(0.010)	ND(0.010)	mg/L
Iron	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Lithium	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Manganese	ND(0.05)	ND(0.05)	ND(0.05)	mg/L
Nickel	ND(0.001)	ND(0.001)	ND(0.001)	mg/L
Zinc	ND(0.05)	ND(0.05)	ND(0.05)	mg/L

Sample Id: **S-0001811920**  
 Sampled Date: 05/11/2021  
 Received Date: 05/11/2021

FIFO Bottle 12oz – Part # 2010-120-XX  
 FIFO Bottle 16oz – Part # 2010-160-XX  
 FIFO Bottle 20oz – Part # 2010-200-XX  
 FIFO Bottle 24oz – Part # 2010-240-XX  
 FIFO Bottle 32oz – Part # 2010-320-XX

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Food Contact Exposure Sum Test Code		Complete		
Mode of Exposure	Total Immersion			
Volume of Simulant	100	Complete	100	mL
Food Simulant	3% Acetic Acid			
Temperature of Exposure	70	Complete	70	degrees C
Exposure Time - days	3	Complete	3	days
Surface Area Exposed, EU	1.0	Complete	1.0	sq. dm.

**Sample Notes** [S-0001811920]:

Testing was performed by an approved NSF International subcontract laboratory.

Sample Id: **S-0001811921**



Sample Id: **S-0001811921** (Continued)  
 Description: E1, 3% Acetic Acid Exposure Soln  
 Sampled Date: 05/11/2021  
 Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
*Specific Migrant Testing in Food Simulant - Subcontracted				
Primary Aromatic Amines by LC-HRMS	ND(1.2)	Complete	ND(1.2)	ug/kg

**Sample Notes [S-0001811921]:**

Specific Primary Aromatic Amines by LC-HRMS:

- 4,4'-methylene-bis-(2-chloro-aniline) (101-14-4)
- 4,4'-methylenedianiline (101-77-9)
- 4,4'-oxydianiline (101-80-4)
- 4-chloroaniline (106-47-8)
- 3,3'-dimethoxybenzidine (119-90-4)
- 3,3'-dimethylbenzidine (119-93-7)
- p-cresidine (120-71-8)
- 2,4,5-trimethylaniline (137-17-7)
- 4,4'-thiodianiline (139-65-1)
- 4-aminoazobenzene (60-09-3)
- 2,4-diaminoanisole (615-05-4)
- 4,4'-methylenedi-o-toluidine (838-88-0)
- o-anisidine (90-04-0)
- 2-naphthylamine (91-59-8)
- 3,3'-dichlorobenzidine (91-94-1)
- 4-aminobiphenyl (92-67-1)
- benzidine (92-87-5)
- o-toluidine (95-53-4)
- 4-chloro-o-toluidine (95-69-2)
- 2,4-diaminotoluene (95-80-7)
- o-aminoazotoluene (97-56-3)
- 5-nitro-o-toluidine (99-55-8)

Primary Aromatic Amines scan performed by spectrophotometric method: ND (0.010 mg/kg)

Testing was performed by an approved NSF International subcontract laboratory.

Sample Id: <b>S-0001811924</b>	FIFO Bottle 12oz – Part # 2010-120-XX
Sampled Date: 05/11/2021	FIFO Bottle 16oz – Part # 2010-160-XX
Received Date: 05/11/2021	FIFO Bottle 20oz – Part # 2010-200-XX
	FIFO Bottle 24oz – Part # 2010-240-XX
	FIFO Bottle 32oz – Part # 2010-320-XX

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
*Residual Analyte - Food Contact Test -Subcontracted				
1-Hexene CAS 592-41-6 by HS GC-MS/FID	ND(0.00066)	Complete	ND(0.00066)	mg/kg

**Sample Notes [S-0001811924]:**

Testing was performed by an approved NSF International subcontract laboratory.

Sample Id: <b>S-0001811925</b>	FIFO Bottle 12oz – Part # 2010-120-XX
Sampled Date: 05/11/2021	FIFO Bottle 16oz – Part # 2010-160-XX
Received Date: 05/11/2021	FIFO Bottle 20oz – Part # 2010-200-XX
	FIFO Bottle 24oz – Part # 2010-240-XX
	FIFO Bottle 32oz – Part # 2010-320-XX

Testing Parameter	Sample	Control	Result	Units



Sample Id: **S-0001811925** (Continued)

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* Food Contact Exposure Sum Test Code				
Mode of Exposure	Total Immersion			
Volume of Simulant	196	Complete	196	mL
Food Simulant	Tap Water			
Temperature of Exposure	60	Complete	60	degrees C
Exposure Time - days	3	Complete	3	days
Surface Area Exposed, EU	0.98	Complete	0.98	sq. dm.

Sample Id: **S-0001811926**  
Description: Exposure Solution  
Sampled Date: 05/11/2021  
Received Date: 05/11/2021

Testing Parameter	Sample	Control	Result	Units
<b>Ann Arbor Chemistry Lab</b>				
* EU Sensory Analysis according to DIN 10955				
Odor Median	0	Complete		
Taste Median	1	Complete		
Odor	No perceptible difference from the control			
Odor Evaluation	Pass	Complete		
Taste	Just perceptible difference (still difficult to define) from the control			
Taste Evaluation	Pass	Complete		



**Testing Laboratories:**

All work performed at: _____ (Unless otherwise specified)	→	<table border="0"> <tr> <td style="text-align: center;"><b>Id</b></td> <td style="border-bottom: 1px dashed black; width: 100px;"></td> </tr> <tr> <td style="text-align: center;">NSF_AA</td> <td></td> </tr> </table>	<b>Id</b>		NSF_AA		<table border="0"> <tr> <td style="text-align: center;"><b>Address</b></td> <td style="border-bottom: 1px dashed black; width: 200px;"></td> </tr> <tr> <td colspan="2">NSF International</td> </tr> <tr> <td colspan="2">789 N. Dixboro Road</td> </tr> <tr> <td colspan="2">Ann Arbor MI 48105</td> </tr> </table>	<b>Address</b>		NSF International		789 N. Dixboro Road		Ann Arbor MI 48105	
<b>Id</b>															
NSF_AA															
<b>Address</b>															
NSF International															
789 N. Dixboro Road															
Ann Arbor MI 48105															

**References to Testing Procedures:**

NSF Reference	Parameter / Test Description
C0153	* Food Contact Exposure Sum Test Code
C0723	* Overall Migration Determination
C0993	* EU Sensory Analysis according to DIN 10955
C1324	*Residual Analyte - Food Contact Test -Subcontracted
C1325	*Specific Migrant Testing in Food Simulant - Subcontracted
C1393	EU 10/2011 Metals by ICPMS/ICP-AES
C3153	* UV/Visible Scan

Test descriptions preceded by an asterisk "\*" indicate that testing has been performed per NSF International requirements but is not within its scope of accreditation.

Unless otherwise indicated, method uncertainties are not applied in any determinations of conformity. Testing utilizes the requested sections of any referenced standards, which may not be the entire standard.

**Dates of Laboratory Activity: 07-MAY-2021 to 23-JUL-2021**