

Formulation Specification

B	210000)
Status:	Approved
Creation	Nov 11, 2022
Date:	
Prepared	Payne, Joel
Bv.	

CONFIDENTIAL - Kroger Information - For Internal Use Only

Summary Information

Spec Name: 94533001 - CREAM CHEESE CAKE ICING - DELI

Short Name: N/A

Spec Status: Approved - Spec is in Approved status

Category:Bakery - FrozenSpec #: 5062768Sub Category:Iced Cakes & Cupcakes, Decorated CakesIssue #: 009

Group: In Process

Creation Date: Nov 11, 2022

Originator: Payne, Joel Inactive:

Supercedes: 5062768-008 - 94533001 - CREAM CHEESE CAKE ICING - Last Edit: Nov 11, 2022

DELI

Reason for Change/Issue: VERS 009 2022-11-11: Measured Water Activities of all of our cake icings are ≈ 0.80, which is

well below the 0.85 threshold needed for micro- protection. So, we are switching the documented micro-hurdle from pH to (Water Activity < 0.85), and correspondingly omitting the remaining

0.08% 11 0033 Citric Acid.

Approved for Use In

Business Unit(s): KMP » Deli/Bakery

Facility Information

Facility Name	Company Name
732 - Layton Bakery - Layton UT	732 - LAYTON BAKERY
102 - Country Oven Bakery	102 - COUNTRY OVEN BAKERY



Formulation Specification

Status:	Approved	
Creation	Nov 11, 2022	
Date:		
Prepared	Payne, Joel	
By:		

Material Inputs

Material	Context Annotation	Quantity	Yield	Batch
430350 - SHORTENING -	If soft do not	12.0000	12.0000	7.6989
ICING - INTERESTERIFIED	use	Ib	lb	%
SOY-COTTON (5034760-005)				
[Approved]				
440042 - VANLITE CAKE	ALT:	0.7500	0.7500	0.4811
EMULSIFIER - CORBION /	KAKEMATE	lb	lb	%
CARAVAN (5150898-001)	Cake Emulsifier	10	15	70
[Approved]	MALLET			
040034 - CREAM CHEESE	Temper 4-6 hrs	30.0000	30.0000	19.2473
(5034988-004)	to 65-70°F.	lb	lb	%
[Approved]	10 00-70 1 .	10	lb lb	70
560006 - P - CORN SYRUP -		9.3300	9.3300	5.9859
43 DE - BULK AND DRUM		9.3300 lb	9.5500 lb	3.9039
(5000418-006)		lib.	ID	/0
[Approved]				
110035 - SALT -		0.4600	0.4600	0.2951
GRANULATED GENERAL			0.4600 lb	0.2931 %
		lb	lD ID	70
PURPOSE (5000223-003)				
[Approved]		0.0000	0.0000	0.0000
170183 - FLAVOR - BUTTER		0.3600	0.3600	0.2309
& VANILLA - N&A		lb	lb	%
(5035082-003)				
[Approved]	5	0.4000	0.4000	0.0044
440284 - XANTHAN GUM	Pre-blend into	0.1000	0.1000	0.0641
(5006024-002)	the other drys to	lb	lb	%
[Approved]	avoid clumping.			
	ALT: 440046			
	XANTHAN			
	GUM - FINE -			
	FAST			
	SOLUBLE			
130436 - COLOR - BETA		0.0060	0.0060	0.0038
CAROTENE - DRY - 1%		lb	lb	%
CWS/M (5002737-003)				
[Approved]				
550017 - P - 12X SUGAR -		100.0000	100.0000	64.1576
50# BAGS (5012083-003)		lb	lb	%
[Approved]				
450001 - WATER - TAP -	Add and blend	2.8600	2.8600	1.8349
LIQUID OR SOLID (ICE)	in 2 parts	lb	lb	%
(5000141-002)	·			
[Approved]				

Alternate Material Inputs

Orig Material(s)	Substitute Material(s)	Description	
040034 - CREAM CHEESE	040037 - CREAM CHEESE -	Temper 4-6 hrs to 65-70°F.	



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Alternate Material Inputs

Orig Material(s)	Substitute Material(s)	Description
(5034988-004)	WHIPPED (5034989-003)	
	[Approved]	
	Substitute Factor: 1.0000	
	Gain/Loss Factor: 1.0000	
	Context:	

Material	Туре	Quantity	Yield
94533001 - CREAM CHEESE	Referenced - Product	155.8660 lb	155.8660 lb
CAKE ICING (X69024) - DELI (5062771-001)	(Standard)		
[Approved]			



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Expanded Bill of Materials

	Quantity	Status
430350 - SHORTENING - ICING - INTERESTERIFIED	12.0000 lb	Approved
SOY-COTTON (5034760-005)		
440042 - VANLITE CAKE EMULSIFIER - CORBION /	0.7500 lb	Approved
CARAVAN (5150898-001)		
040034 - CREAM CHEESE (5034988-004)	30.0000 lb	Approved
560006 - P - CORN SYRUP - 43 DE - BULK AND DRUM	9.3300 lb	Approved
(5000418-006)		
110035 - SALT - GRANULATED GENERAL PURPOSE	0.4600 lb	Approved
(5000223-003)		
170183 - FLAVOR - BUTTER & VANILLA - N&A	0.3600 lb	Approved
(5035082-003)		
440284 - XANTHAN GUM (5006024-002)	0.1000 lb	Approved
130436 - COLOR - BETA CAROTENE - DRY - 1% CWS/M	0.0060 lb	Approved
(5002737-003)		
550017 - P - 12X SUGAR - 50# BAGS (5012083-003)	100.0000 lb	Approved
450001 - WATER - TAP - LIQUID OR SOLID (ICE)	2.8600 lb	Approved
(5000141-002)		



Formulation Specification

Status:	Approved	
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By:		

1 Step 1 - Blend

Instructions:

MIX SMOOTH ON LOW

Material Inputs

Material	Context	Annotation	Quantity	Yield	%Step
430350 - SHORTENING -		If soft do not	12.0000	12.0000	23.0414
ICING - INTERESTERIFIED		use	lb	lb	%
SOY-COTTON (5034760-005)					
[Approved]					
440042 - VANLITE CAKE		ALT:	0.7500	0.7500	1.4400
EMULSIFIER - CORBION /		KAKEMATE	lb	lb	%
CARAVAN (5150898-001)		Cake Emulsifier			
[Approved]		MALLET			
040034 - CREAM CHEESE		Temper 4-6 hrs	30.0000	30.0000	57.6036
(5034988-004)		to 65-70°F.	lb	lb	%
[Approved]					
560006 - P - CORN SYRUP -			9.3300	9.3300	17.9147
43 DE - BULK AND DRUM			lb	lb	%
(5000418-006)					
[Approved]					
			Total	52.0800	
				lb	

Alternate Material Inputs

Orig Material(s)	Substitute Material(s)	Description
040034 - CREAM CHEESE	040037 - CREAM CHEESE -	Temper 4-6 hrs to 65-70°F.
(5034988-004)	WHIPPED (5034989-003)	
	[Approved]	
	Substitute Factor: 1.0000	
	Gain/Loss Factor: 1.0000	
	Context:	

Material	Type	Quantity	Process Gain/Loss	Water Gain/Loss	Yield	%Step
Shortening from Step 1 (5062769-009)	Internal (Standard)	52.0800 lb	1.0000	1.0000	52.0800 lb	100 %



Formulation Specification

(555	
Status:	Approved
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Date:	
Prepared	Payne, Joel
Bv [.]	

2 Step 2 - Add

Instructions:

MIX SMOOTH ON LOW

Material Inputs

Material	Context	Annotation	Quantity	Yield	%Step
Shortening from Step 1			52.0800	52.0800	34.0378
(5062769-009)			lb	lb	%
[Approved]					
110035 - SALT -			0.4600	0.4600	0.3006
GRANULATED GENERAL			lb	lb	%
PURPOSE (5000223-003)					
[Approved]					
170183 - FLAVOR - BUTTER			0.3600	0.3600	0.2352
& VANILLA - N&A			lb	lb	%
(5035082-003)					
[Approved]					
440284 - XANTHAN GUM		Pre-blend into	0.1000	0.1000	0.0653
(5006024-002)		the other drys to	lb	lb	%
[Approved]		avoid clumping.			
		ALT: 440046			
		XANTHAN			
		GUM - FINE -			
		FAST			
		SOLUBLE			
130436 - COLOR - BETA			0.0060	0.0060	0.0039
CAROTENE - DRY - 1%			lb	lb	%
CWS/M (5002737-003)					
[Approved]					
550017 - P - 12X SUGAR -			100.0000	100.0000	65.3569
50# BAGS (5012083-003)			lb	lb	%
[Approved]					
			Total	153.0060	
				lb	

Material	Туре	Quantity	Process Gain/Loss	Water Gain/Loss	Yield	%Step
Blend from Step 2	Internal	153.0060	1.0000	1.0000	153.0060	100 %
(5062770-009)	(Standard)	lb			lb	



Formulation Specification

Status: Approved Creation Nov 11, 2022 Date: Prepared Payne, Joel By:

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3 Step 3 - Add

Instructions:

MIX: LOW 1 MIN, SCRAPE, INCORPORATE.

MIX: LOW 1 MIN, SCRAPE, HIGH VARIABLE

Icing Temperature - out of mixer: 70°F Specific Gravity - out of mixer: 0.90± 0.03

pH: 4.10- 4.40

NOTE: Icing temperature will increase by approximately 7°F as it is pumped from bowl to Unifiller.

Temperature, from Unifiller head: ≤85°F

NOTE: Shortening and icing must be kept below 85°F at every phase of processing. If the shortening component ever goes above this critical temperature boundary, even briefly, then part of the shortening in the icing will melt, recrystallize into a different form, and the icing will not be stable when applied to a cake.

Material Inputs

Material	Context	Annotation	Quantity	Yield	%Step
Blend from Step 2			153.0060	153.0060	98.1650
(5062770-009)			lb	lb	%
[Approved]					
450001 - WATER - TAP -		Add and blend	2.8600	2.8600	1.8349
LIQUID OR SOLID (ICE)		in 2 parts	lb	lb	%
(5000141-002)					
[Approved]					
	•	+	Total	155.8660	
				lb	

Material	Туре	Quantity	Process Gain/Loss	Water Gain/Loss	Yield	%Step
94533001 -	Referenced	155.8660	1.0000	1.0000	155.8660	100 %
CREAM CHEESE	- Product	lb			lb	
CAKE ICING	(Standard)					
(X69024) - DELI						
(5062771-001)						

Material Summary

94533001 - CREAM CHEESE CAKE ICING - DELI (5062768-009)					
	Status:	Approved			
	Creation	Nov 11, 2022			
Material Summary	Date:				
•	Prepared	Payne, Joel			
	By:				

Summary Information

Spec Name: 94533001 - CREAM CHEESE CAKE ICING - DELI

Short Name: N/A

Spec Status: Approved - Spec is in Approved status

Category: Bakery - Frozen Spec #: 5062768 Issue #: 009 Sub Category: Iced Cakes & Cupcakes, Decorated Cakes

Group: In Process

Creation Date: Nov 11, 2022

Originator: Payne, Joel Inactive:

Last Edit: Nov 11, 2022 Supercedes: 5062768-008 - 94533001 - CREAM CHEESE CAKE ICING -

DELI

Reason for Change/Issue: VERS 009 2022-11-11: Measured Water Activities of all of our cake icings are ≈ 0.80, which is

well below the 0.85 threshold needed for micro- protection. So, we are switching the documented micro-hurdle from pH to (Water Activity < 0.85), and correspondingly omitting the remaining

0.08% 11 0033 Citric Acid.

430350 - SHORTENING - ICING - INTERESTERIFIED SOY-COTTON(5034760-005)

Specification Name: 430350 - SHORTENING - ICING - INTERESTERIFIED SOY-COTTON

Status: Approved

Description: A pure vegetable shortening with emulsifiers added to be used for cake and icing applications.

Kosher certified. BUNGE composition notes - Interesterified Soybean Oil 83.5 ± 4.5%, Soybean

Oil 8.0 \pm 5.0%, Hydrogenated Cottonseed Oil 7.0 \pm 5.0%.

Ingredient Statement: Interesterified soybean oil, soybean oil, hydrogenated cottonseed oil, mono- and diglycerides,

polysorbate 60. (TBHQ and citric acid added to protect flavor) (BUNGE)

Combined Statement:

Allergens: Additives:

440042 - VANLITE CAKE EMULSIFIER - CORBION / CARAVAN(5150898-001)

Specification Name: 440042 - VANLITE CAKE EMULSIFIER - CORBION / CARAVAN

Status: Approved

Description: A hydrated emulsifier blend for use in cakes, containing Propylene Glycol Mono- and Di-esters of

Fats and Fatty Acids (PGME), Monoglycerides, Stearoyl Lactylic Acid.

Ingredient Statement: Water, propylene glycol mono- and diesters of fats and fatty acids (PGME), monoglycerides,

stearoyl lactylic acid. (< 0.25% sorbic acid (mold inhibitor).)

Combined Statement:

Allergens:

Additives:

040034 - CREAM CHEESE(5034988-004)

Specification Name: 040034 - CREAM CHEESE

Status: Approved

Description: A creamy white, soft, uniform, spreadable cheese with a mild lactic acid profile.

Ingredient Statement: Pasteurized cultured milk and cream, salt, stabilizers (xanthan and/or carob bean and/or guar

gums).

Combined Statement:

Allergens: Milk

Additives:

Material Summary

94533001 - CREAM CHEESE CAKE ICING - DELI (5062768-009)					
	Status:	Approved			
	Creation	Nov 11, 2022			
Material Summary	Date:				
•	Prepared	Payne, Joel			
	By:				

560006 - P - CORN SYRUP - 43 DE - BULK AND DRUM(5000418-006)

Specification Name: 560006 - P - CORN SYRUP - 43 DE - BULK AND DRUM

Status: Approved

Description: A pale thick liquid pourable at 105°F, with a sweet smooth flavor and no burnt or harsh flavors or

Ingredient Statement: Corn syrup

Combined Statement:

Allergens: Additives:

Intolerances: Sulfites

Shortening from Step 1(5062769-009)

Specification Name: Shortening from Step 1

Status: Approved

Description:

Ingredient Statement: Combined Statement:

Allergens: Milk

Additives:

110035 - SALT - GRANULATED GENERAL PURPOSE(5000223-003)

Specification Name: 110035 - SALT - GRANULATED GENERAL PURPOSE

Status: Approved

Description: Food grade, free flowing white granule identifiable as salt for general uses in all plants.

Ingredient Statement: Salt, yellow prussiate of soda (anti-caking agent).

Combined Statement:

Allergens: Additives:

170183 - FLAVOR - BUTTER & VANILLA - N&A(5035082-003)

Specification Name: 170183 - FLAVOR - BUTTER & VANILLA - N&A

Status: Approved

Description: A white to off-white powder with a creamy butter-vanilla flavor and aroma.

Ingredient Statement: Dextrose, corn starch, natural & artificial flavor (milk). Alpha Tocopherol (Vitamin E USP, FCC),

alcohol.; CONTAINS: MILK.

Combined Statement:

Allergens: Milk Additives:

440284 - XANTHAN GUM(5006024-002)

Specification Name: 440284 - XANTHAN GUM

Status: Approved

Description: An off-white, free-flowing powder. Unless otherwise specified, all following methods are to be the

most current method available.

Ingredient Statement: Xanthan gum.

Combined Statement:

Allergens: Additives:

130436 - COLOR - BETA CAROTENE - DRY - 1% CWS/M(5002737-003)

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94533001 - CREAM CHEESE CAKE ICING - DELI (5062768-009)

Material Summary

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Status:	Approved				
Creation	Nov 11, 2022				
Date:					
Prepared	Payne, Joel				
Bv·					

Specification Name: 130436 - COLOR - BETA CAROTENE - DRY - 1% CWS/M

Status: Approved

Description: A orange powder containing 1% beta-carotene.

Ingredient Statement: Beta-carotene crystalline, maltodextrin, acacia (spray dried), medium chain triglycerides,

sucrose. (Sodium ascorbate cryst., silicon dioxide, DL-alpha-tocopherol)

Combined Statement:

Allergens: Additives:

Intolerances: Sulfites

550017 - P - 12X SUGAR - 50# BAGS(5012083-003)

Specification Name: 550017 - P - 12X SUGAR - 50# BAGS

Status: Approved

Description: Fine powdered sugar with cornstarch to aid fluidization. Unless otherwise specified, all following

methods are to be the most current method available.

Ingredient Statement: Sugar, corn starch

Combined Statement:

Allergens: Additives:

Intolerances: Sulfites

Blend from Step 2(5062770-009)

Specification Name: Blend from Step 2

Status: Approved

Description: Ingredient Statement:

Combined Statement:

Allergens: Milk

Additives:

Intolerances: Sulfites

450001 - WATER - TAP - LIQUID OR SOLID (ICE)(5000141-002)

Specification Name: 450001 - WATER - TAP - LIQUID OR SOLID (ICE)

Status: Approved

Description: This specification covers water in two forms: (1) Potable water as received via the public water

system and used without further treatment except temperature, pH or softening. Potable water must meet the "National Primary Drinking Water" regulation issued by the EPA (see the "Ext Data" tab, "Additional Information" section OR the attached regulation under the "Supporting Documents" tab). (2) Ice - defined as frozen water (approximately <32-°F) produced from water that meets the requirements under (1) above. NOTE THAT all information pertaining to shipping and any suppliers documented (via a Sourcing Approval, on the "References" tab) will be those

for ice - not liquid water, which is received via plumbing on demand.

Ingredient Statement: Water.

Combined Statement:

Allergens:



Material Specification

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Status:	Approved	
Creation	Dec 14, 2012	
Date:		
Prepared	Brown, Daryl	
By:		

CONFIDENTIAL - Kroger Information - For Internal Use Only

Summary Information

Spec Name: 94533001 - CREAM CHEESE CAKE ICING (X69024) - DELI

Short Name: N/A

Spec Status: Approved - Spec is in Approved status

Category:Formula Output - Bakery - FrozenSpec #: 5062771Sub Category:Iced Cakes & Cupcakes, Decorated cakesIssue #: 001

Group: In Process

Creation Date: Dec 14, 2012

Inactive:

Originator: Brown, Daryl

Reason for Change/Issue: Formula Change Chg 29 07-12-13: We need to reduce acidity as far as possible to improve icing

flavor, yet stay under pH 4.40 to enable required ambient shelf stability. COB testing found that Citric Acid level could be reduced from 0.16% to 0.08% without exceeding that pH 4.40 criterion.

Approved for Use In

Business Unit(s): KMP » Deli/Bakery

Cross References

System Name	System ID	Equivalent
Formula Management - Formula	CFT-FORMULA-OUTPUT	94533001
Output		

Material Attributes

Description:

Classification: Referenced Formula Output

Country Of Origin: -Not Specified

Shipping Requirements: Shipping Instructions:

Design Attributes

Density: =

Total Solids:

Ingredient Statements

Ingredient Statement:

Compliance Information

Allergens: Max / 100g Source / Comments
(Known to Contain) Milk <=

Allergens: Crustaceans, Egg, Fish, Peanut, Sesame, Soy, Tree Nut, Wheat (Does not contain)

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Material Specification

 ,	(555_111551)
Status:	Approved
Creation	Dec 14, 2012
Date:	
Prepared	Brown, Daryl
By:	

Enterprise Change Log

Event	Status	Complete Date	Comments
USDA AMS BE Regulation Evaluation	Subject to	Aug 16,	
	Reg	2021	



Material Specification

/	
Status:	Approved
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Date:	
Prepared	Brown, Daryl
Bv:	

Physical & Chemical Specifications - Formulations

	Value	Method	Method Details	Plant QC Test Frequency	Plant QC Test Location	Comments
Flavor	Cream cheese icing with a little acid note.	Organoleptic		Every Batch	Mixer	
Additional Attribute 1	pH - Final icing = See Formula			Every Batch	Mixer	Do not release if icing does not meet the pH range.
Additional Attribute 2	Appearance/ Texture = Smooth and uniformly blended: no lumps or streaks.	Visual		Every Batch	Mixer	



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General Microbiological Statement

	Value	
General Microbiological	Microorganisms known to cause food intoxication or food poisoning in	
Statement	humans shall be absent from the raw material/finished product.	

Certifications & Standards

	Value	Comments
Kosher Status	Kosher Dairy	
Organic Status	No	
RTE Compliant	Ready to Eat	
BE Disclosure Required	Yes	
'non-GMO' Compliant	No	
Peanut Free Facility Compliant	Yes	Layton Bakery only
Proposition 65 Eligible	Input Needed	
Proposition 65 Warning Label	Input Needed	
Needed		

Technologist and CSM

	Value
Technologist Name	Joel Payne



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Nutrient Composition

Nutrient		Source	Comments
Calories	383.1271 kcal	Theoretical	
Total Fat	14.2863 g	Theoretical	
Saturated Fat	6.7964 g	Theoretical	
Trans Fat	0.5215 g	Theoretical	
Polyunsaturated	3.6168 g	Theoretical	
Fat			
Monounsaturated	3.3503 g	Theoretical	
Fat			
Cholesterol	19.0365 mg	Theoretical	
Sodium	201.5122 mg	Theoretical	
Total	64.5638 g	Theoretical	
Carbohydrate			
Dietary Fiber	0.0772 g	Theoretical	
Total Sugars	1.2115 g	Theoretical	
Protein	1.0285 g	Theoretical	
Calcium	19.2153 mg	Theoretical	
Iron	0.1488 mg	Theoretical	
Potassium	0.0110 mg	Theoretical	
Vitamin A - IU	225.4625 IU	Theoretical	
Vitamin C	0.2223 mg	Theoretical	
Thiamin (vitamin	0.0000 mg	Theoretical	
B1)			
Riboflavin (vitamin	0.0000 mg	Theoretical	
B2)			
Niacin (vitamin B3)	0.0000 mg	Theoretical	
Moisture	0.0002 g	Theoretical	
Ash	0.2915 g	Theoretical	
Calories from Fat	126.8537 kcal	Theoretical	