

A. Low Heat



Extra Grade	LOW HEAT
Spray Dried Nonfat Dry Milk ~ Formula 204	
Prepared by: Tom Honse	Approved by: Tom Honse
Revised: 05/15/2010	Supersedes: 04/15/2008

Regulations/General:

This product conforms to the USDA Standards in 7CFR §58.248, the Standards of Identity in 21CFR§131.125, and complies with FDA's Good Manufacturing Practices in 21CFR§110. Prior to receipt, the raw milk used to produce this product is screened for antibiotic residues per the approved methods mandated by the Federal Pasteurized Milk Ordinance (PMO). The product is legally pasteurized through a state-sealed HTST unit at a minimum 161°F (72°C)/15 sec. as part of the production process.

Description:

This product is a food-grade powder resulting from the removal of only water from pasteurized skim milk. It shall be white to light cream in color, free-flowing and free of lumps that do not break up under slight pressure. It shall be practically free of dark particles. Flavor shall be sweet, pleasing, but slight chalky, cooked, feed or flat flavors are permissible.

Chemical/Physical & Microbiological:

CHEMICAL/PHYSICAL	TYPICAL*	SPECIFICATIONS
*%Moisture ^{15.111} (vacuum)	3.0	≤ 4
*%Butterfat ^{15.086} (ether extraction)	0.7	≤ 1.25
*%Titratable Acidity ^{15.021} (10% solution as lactic acid)	0.13	≤ 0.15
*Scorched Particles ^{15.172}	Disk A 7.5mg	Disk B ≤ 15mg
*Protein ^{15.132} (Kjeldahl x 6.38)	35.0	34 min
*Ash ^{15.041}	6.3	≤ 8.0
*Solubility Index ^{15.171}	0.10 ml	≤ 1.2 ml
*Whey Protein Nitrogen (WPN) ^{1-D 1 v.}	6 - 8 mg/g	≥ 6 mg/g
*pH ^{15.022} (10% solids basis)	6.4 - 6.8	≥ 6.4 min.
%Granulation (10g, mechanical shaker, 10 minutes, med setting)	98 thru USS#40	

MICROBIOLOGICAL	TYPICAL**	SPECIFICATIONS
*Bacterial estimates (SPC) ^{6.020}	< 10 cfu/g	≤ 10,000 cfu/g
*Coliform ^{7.020 & 7.070}	< 10 cfu/g	< 10 cfu/g
*Yeast/Mold ^{8.115}	< 10 cfu/g	< 50 cfu/g
*Coag.+ Staph ^{5.050} (1x/shift individual plates)	Negative (to test)	
*Salmonella ^{5.020 & 15.035} (2x375g composite)	Negative (to test)	

Methods of Analysis

As mandated by PMO – APHA *Standard Methods for the Examination of Dairy Products* – 17th Ed.

ADDITIONAL REFERENCES: 1) USDA DA Instruction-918-RL, Laboratory Methods and Procedures
2) ADPI *Publication-Standards for Grades of Dry Milks, including Methods of Analysis* (Bulletin 916)

*Typical Analysis. Not all tests performed on each sub lot. *Added tests can be done at additional customer cost*

Shelf Life/Packaging/Coding:

Shelf life – 1 year when shipped and stored at ambient temperatures less than 90° F and 90%RH. Packaged in 25kg bags x 40/pallet and 2000# totes.

Coding information printed/stamped on package with product name, state plant number

CODE: 4-digit AMPI ID number, 1YYDAY (Julian date) and sub lot letters/number.

Example: 6200110200AR09 6200 = Arlington-110 = 2010-200 for Jul 19-sublot AR 09
1 subplot = 2 pallets or 1 tote

Kosher: Yes – O-U_D

Allergens: milk

AMPI Product Codes: 204-7055 = LH NFDM 25kg bags; 204-1600=Low Heat totes,

COUNTRY OF ORIGIN:

AMPI is a major Midwestern American Dairy Cooperative that uses only domestic milk in the manufacturing of our dairy products.

FOREIGN MATERIAL PROTECTION:

All AMPI dairy powders pass over a set of in-line rare-earth magnets followed by a sieving procedure that utilizes a 40 mesh screen immediately prior to the final packaging step. Metal detector step during packaging for bags.

Ingredients:

Pasteurized Nonfat Dry Milk

NUTRIENTS	UNITS	/100g
Water	g	3.16
Energy	Kcal	362
Protein	g	36.16
Total Lipid (fat)	g	0.77
Trans Fatty Acids	g	0.02
Ash	g	7.93
Carbohydrate (by difference)	g	51.98
Fiber, total dietary	g	0
Sugars (total)	g	51.98
Lactose	g	51.98
MINERALS		
Calcium – Ca	mg	1257
Iron – Fe	mg	0.32
Magnesium – MG	mg	110
Phosphorus – P	mg	968
Potassium – K	mg	1794
Sodium – Na	mg	535
Zinc – Zn	mg	4.08
VITAMINS		
Vitamin C – ascorbic acid	mg	6.8
Thiamin	mg	0.42
Riboflavin	mg	1.55
Niacin	mg	0.95
Pantothenic acid	mg	3.57
Vitamin B-6	mg	0.36
Folate – total	mcg	50
Folic Acid	mcg	0
Vitamin B-12	mcg	4.03
Vitamin A	IU	22
Vitamin E (alpha-tocopherol)	mg	0.02
Vitamin D	IU	332
Vitamin K (phyloquinone)	mcg	0.1
Lipids		
Fatty Acids – total saturated	g	0.499
Fatty Acids – tot.monounsatur.	g	0.201
Fatty Acids – tot. polyunsatur.	g	0.030
Cholesterol	mg	20

Source: USDA:ARS Release 19 2006

These specifications are for product to be offered and delivered by Hoogwegt US, Inc. for the Convocatoria No. TPC-SUB-105-001-2014 del Contingente Arancelario del Tratado de Promocion Comercial entre La Republica de Panama y los Estados Unidos de America, correspondiente al año 2014.


Gustavo Wüst
 Export Manager
 Hoogwegt U.S., Inc.

A. Low Heat

 Product Specification	
TITLE: Nonfat Dry Milk Grade A Low Heat	PRODUCT NUMBER: NDML 2500
PACKAGE TYPE: 25 KG	CREATED BY: Ronald I. Thompson, Ph.D.

I. Description

Nonfat Dry Milk Grade A Low Heat is the powder resulting from the removal of the fat and water from fresh Grade A milk. It shall contain the lactose, milk proteins and milk minerals in the same relative proportions as they occur in fresh milk. The product shall be made from fresh, sweet milk to which no preservative, alkali, neutralizing agent or other chemical has been added and which has been pasteurized. The product is manufactured consistent with all requirements of the standards of Identity in the Code of Federal Regulations (21 CFR 131.125) and Good Manufacturing Practices (21 CFR 110).

II. Chemical & Physical Analysis:

Attribute	Units	Typical	Minimum	Maximum	Frequency	Method	On C of A
Protein (as is basis)	% m/m	34.0	32.0	39.0	1 per 45 MT	Kjeldahl/NIR	No
Moisture	%m/m	3.9	NA	4.0	1 per 9 MT	IDF/NIR	Yes
Fat	%m/m	0.70	NA	1.25	1 per 9 MT	IDF/NIR	Yes
WPNI: Low Heat	mg/g	6.5	6.0	NA	1 per 9 MT	SMEDP/AOAC	Yes
Titrateable Acidity	%m/v	0.13	0.11	0.15	1 per 9 MT	ADPI/AOAC	Yes
Drug Residues		Not Found	NA	NA	NA	Charm 3SL3	No
Insolubility Index	mL	0.2	NA	1.25	1 per 45 MT	SMEDP	Yes
Scorched Particles	mg/25g	7.5 (A)	NA	15.0 (B)	1 per 9 MT	SMEDP	Yes

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 <p>Product Specification</p>	
TITLE: Nonfat Dry Milk Grade A Low Heat	PRODUCT NUMBER: NDML 2500
PACKAGE TYPE: 25 KG	CREATED BY: Ronald I. Thompson, Ph.D.

III. Microbiological Standards:

Attribute	Units	Typical	Minimum	Maximum	Frequency	Method	On C of A
Aerobic Plate Count (APC)	cfu/g	<100	NA	10,000	1 per 9 MT	SMEDP (3M™Petrifilm™)	Yes
Coliforms	cfu/g	<10	NA	10	1 per 9 MT	SMEDP (3M™Petrifilm™)	Yes
Salmonella	/750 g	Absent	NA	Absent	1 per 45 MT	FDA BAM	Yes
Yeast & Mold	cfu/g	<10	NA	50	1 per 45 MT	SMEDP (3M™Petrifilm™)	Yes
Coagulase Positive Staphylococci	cfu/g	Absent	NA	10	1 per 45 MT	FDA BAM	Yes

IV. Physical Properties:

Attribute	Description	On C of A
Color:	White to cream	No
Flavor:	Clean, slight cooked flavor, no non-typical flavors	No
Odor:	Fresh, sweet, no off odor	No
Appearance:	Free flowing powder, no lumps	No
Bulk Density:	0.65-0.85 g/cc	No


Gustavo Wüst
 Export Manager
 Hoogwegh U.S., Inc.

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A. Low Heat

 Product Specification	
TITLE: Nonfat Dry Milk Grade A Low Heat	PRODUCT NUMBER: NDML 2500
PACKAGE TYPE: 25 KG	CREATED BY: Ronald I. Thompson, Ph.D.

V. Packaging & Storage

Packaged in Kraft multi-wall bags incorporating a polyethylene bag liner, and individually closed. Staples or metal fasteners are not acceptable. The Dried products can absorb odors and moisture. Storage in a cool, dry environment recommended for maximum shelf life.

VI. Shelf Life:

The product has twenty-four (24) month shelf life when stored at < 80 °F (26 °C) and < 65% relative humidity in original, sealed bags.

VII. Allergen Statement

Contains milk proteins or Contains Milk.

VIII. Ingredient Statement

Nonfat Dry Milk.

IX. Table of Revisions:

Revision	Description of Revision	Date	Approvals
	Initial Release	2012	Steve Cooper
			Ronald I. Thompson, Ph.D.

¹SMEDP – Standard Methods for the Evaluation of Dairy Products, current edition.

²Tested by adjusting to 9.0% solids.

³Drug Residue testing is performed at the plant on the raw milk prior to receipt, Continuing Guaranty required.

⁴Temperature is sampled at the plant prior to receipt.

⁵FDA BAM – US Food and Drug Administration Bacteriological Analytical Manual, current edition.

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Digitally signed by
ddenbesten@continentaldflc.com
DN: cn=ddenbesten@continentaldflc.com
Date: 2013.02.05 13:43:46 -05'00'



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Export Manager
Hoogwegt U.S., Inc.

A. Low Heat**DairyAmerica, Inc**

11/22/2011

Nonfat Dry Milk Grade A Low Heat

Spray Dried Grade "A" Low Heat Nonfat Dry Milk is the powder resulting from the removal of the fat and water from fresh Grade "A" Milk. It contains the lactose, milk proteins and milk minerals in the same relative proportions as they occur in fresh milk. The product is made from fresh, pasteurized nonfat milk to which no preservative, alkali, neutralizing agent or other chemical has been added. DairyAmerica's Grade "A" Low Heat NFDM is commonly used in the manufacturing of: cottage cheese, buttermilk, frozen desserts, margarine, soups, puddings, cultured products, and beverages.

Further information regarding grade standards and methods of analysis are available from the American Dairy Products Institute (ADPI).

TYPICAL ANALYSIS

Protein (Nx6.38)%	33.0% ± 2
Lactose	51.0%
Fat	1.25% Maximum
Moisture	4.0% Maximum
Ash	8.2% Maximum
WPN	6.0 mg/g Minimum
Titratable Acidity	0.15% Maximum
Antibiotic Residues	Negative

MICROBIOLOGICAL STANDARDS

Standard Plate Count	30,000/g Maximum
Coliform	≤10/g
Salmonella	Negative

PHYSICAL PROPERTIES

Scorched Particles	Disc B (15.0mg), Maximum
Solubility Index	1.2 ml, Maximum
Color	Light cream to white
Flavor	Clean, cooked flavor
Odor	Fresh, no off odor

Storage and Shipping

Product should be stored in a dry, cool, clean warehouse free of odors with a temperature below 80 degrees F and relative humidity below 65%. Stored under these conditions, it is recommended that the product be consumed in less than eighteen months to assure fresh tasting product.

Packaging

Multiwall kraft bags with polyethylene inner liner or other approved closed container, i.e., "tote bags", etc.

Nutrient Information

The nutrients found in 100 grams of products are as follows:

Protein (Nx6.38)	34 g
Lactose	51 g
Fat	0.8 g
Water	4.0g Maximum
Ash	8.0 g



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Hoogwegt U.S., Inc.

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Calories	359 K cal
MINERALS	
Calcium	1248 mg
Iron	0.4 mg
Magnesium	110 mg
Phosphorus	993mg
Potassium	1674 mg
Sodium	494 mg
Zinc	4.08 mg

LIPIDS: FATTY ACIDS

Saturated, total	.50 g
Monounsaturated, total	0.20 g
Polyunsaturated, total	0.03 g
Cholesterol	25mg
Calories from Fat	6.5 K cal

VITAMINS

Vitamin C	8.0 mg
Thiamine	0.415 mg
Riboflavin	1.8 mg
Niacin	0.951mg
Pantothenic Acid	3.568 mg
Vitamin B6	0.361 mg
Folacin	50 mcg
Vitamin A	30 IU 6.7 RE

Amino Acid Composition of Protein

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A. LOW HEAT

10220 N. Ambassador Dr. Kansas City, MO 64153

Tel: 1-888-487-6455 Fax 1-816-801-6701

Dairy Farmers of America

Product Information Bulletin

Name: Low Heat Nonfat Dry Milk (Grade A / Extra Grade)
Code: various depending on pack size
Manufacturing Site: multiple DFA locations
Quality Assurance Statement:

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Description:

Nonfat Dry Milk is the powder that is obtained by removing water from pasteurized skim milk or condensed milk. It is a convenient, economical concentrated source of protein, lactose, B vitamins, calcium & other minerals.

Ingredients:

MILK

Allergens: MILK



Product: n/a

Dimensions:

Package: varies

Case: n/a

Palletization:

Cases per pallet: varies

Ti - High: varies

Certification:

Kosher: Yes if box is checked

Halal: Yes if box is checked

Storage:

Temperature:

Shipping: ≤ 80° F

Storage: ≤ 80° F

Shelf Life: 730 days from date of manufacture

Typical Analytical Characteristics:

Milkfat	not greater than 1.25%
Moisture	not greater than 4.00%
Titrateable Acidity	not greater than 0.15%
Solubility Index	not greater than 1.00 mL
Scorched Particle	not greater than 15.0 mg (disc B)
WPN	not less than 6.0 mg/g
Antibiotic Residue	Negative on raw materials

Typical Physical Properties:

Color	uniform light cream color
Appearance	n/a
Flavor	typical of skim milk
Odor	clean and free of off odors
Body/Texture	free flowing / lumps that break under moderate pressure

Typical Microbiological Characteristics:

Aerobic Plate Count	<10,000 cfu / g
Coliform	< 10 cfu / g
E. coli	<10 cfu / g
Coagulase positive staphylococci	< 10 cfu / g
Yeast & Mold	< 100 cfu / g
Salmonella	Negative per 375 g

Packaging:

Available packed in 25kg or 50 lb multiwall kraft paper bags with polyethylene liners or 2,000 lb plastic-fiber bulk totes.

Other Information:

Should be stored under clean, dry warehouse conditions with RH of 75% or less for maximum shelf life.

Typically, protein is ≥34%

Nutritional Information (per 100 grams):

Calories	362 cal
Calories from Fat	6.93 cal
Total Fat	0.77 g
Saturated Fat	0.499 g
Trans Fat	0.023 g
Polyunsaturated Fat	0.03 g
Monounsaturated Fat	0.201 g
Cholesterol	20 mg
Sodium	535 mg
Potassium	1794 mg
Total Carbohydrate	51.98 g
Dietary Fiber	0 g
Sugars	51.98 g
Other Carbohydrates	0 g
Protein	36.16 g
Vitamin A	22 IU
Vitamin C	6.8 mg
Calcium	1257 mg
Iron	0.32 mg
Vitamin D	332 IU
Vitamin E	0 mg
Vitamin K	0.1 mcg
Thiamin	0.415 mg
Riboflavin	1.55 mg
Niacin	0.951 mg
Vitamin B6	0.361 mg
Folate	50 mcg
Vitamin B12	4.03 mcg
Biotin	20.1 mcg
Pantothenic Acid	3.56 mg
Phosphorus	968 mg
Iodine	235 mcg
Magnesium	110 mg
Zinc	4.08 mg
Selenium	27.3 mcg
Copper	0.41 mg
Manganese	0.02 mg
Chromium	-- mcg
Molybdenum	18.9 mcg
Chloride	-- g



A. Low Heat

Serving Northwest Dairy Producers Since 1931

Phone (503) 472-2157
Portland 227-5133
FAX (503) 472-3821

700 North Hwy. 99W
McMinnville, OR 97128

Supersedes:	6/21/2011
Revision #:	2
Issued By:	

Product Specification Sheet Low Heat Nonfat Dry Milk Powder Grade A

Description: Grade A Low Heat Milk is the result of water only being removed from pasteurized skim milk, which no preservative, alkali, neutralizing agents or other chemical have been added. Low Heat powder has a white to creamy color, free of brown or yellow color, which is typical of overheated products.

Ingredients: Pasteurized Skim Milk

Nutritional Facts (per 100 grams)

Typical Analysis:

Fat	1.25 % Max
Trans Fatty Acid	< 0.1 %
Moisture	4.00 % Max
Acidity	0.17 % Max
Antibiotics	Negative
Salmonella	Negative
Solubility Index	1.2 ml Max
Coliform/Ecoli	<10 cfu/gm
Standard Plate Count	<1000 cfu/gm
Yeast & Mold	≤20 cfu/gm
WPNI (mg/g)	>6.0
Sediment	Disc B Max

Water	4.00g Max
Energy	362 Kcal
Protein	33.0 % +/- 2
Total Carbohydrate	53 gm
Dietary Fiber	0.0 gm
Ash	8.2 Max
Calcium	1230 mg
Iron	2 mg
Magnesium	110 mg
Phosphorus	968 mg
Potassium	1794 mg
Sodium	370 mg
Zinc	4.08 mg
Copper	0.04 mg
Maganese	0.02 mg
Vitamin C	25 mg
Vitamin A	0.0 mg
Calories from Fat	5.0 K cal
Total Fat	0.5 gm
Saturated Fat	0.5 gm
Trans Fat	0.0 gm
Cholesterol	20 mg
Sugars	56 gm
Riboflavin	0.95 mg

Packaging:

Packaged in poly lined, multi-wall paper bags each containing 50 pounds net wt.

Storage:

Store at normal warehouse conditions defined as cool, dry at temperature between 50° F - 80° F, and less than 65 % relative humidity in ambient storage.

Shelf-Life:

For optimum shelf life use 12 months after manufacture date to ensure freshness.

Kosher:

Yes (OU)

Metal Detection:

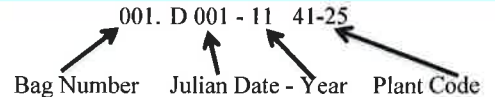
Every bags goes through Mettler Toledo Safeline.

Organic Status:

Oregon Tilth Certified Organic.

Example of Date

Code:



Pallet


Configuration:

5 ti x 8 hi (40 50 lb bags / pallet)


 Gustavo Wüst
 Export Manager
 Hoogwegt U.S., Inc.

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A. Low Heat

	Document Type FORM	QC.03.614
	TITLE: INTERNATIONAL LOW HEAT NONFAT RBST FREE GRADE A 25KG	DOCUMENT NUMBER

Ingredient: Milk from cows not treated with rBST.

#614-79065

Product Analysis:

Milk Fat	0.80% (+/- 45%) = 1.25% Maximum
Moisture	4% Maximum
Scorched Particles	Maximum B- Pad, (15mg)
Solubility Index	1.25 ml Maximum
Titratable Acidity	≤ .15%
Extraneous Material	Free from
Protein	34.5 to 37.0%
Whey Protein Nitrogen	≥ 6.0 mgs/gm
Odor and Flavor	Sweet, Slightly Cooked

Packaging: 25 kg **Blue** Labeled Bags

Government Standard: Pasteurized Milk Ordinance and USDA Approved

Shelf Life: 18 Months with a minimum of 6 month remaining upon arrival

Microbiological Analysis:

Coliform	10/gm Maximum
Aerobic Plate Count	<10,000/gm Maximum
Salmonella	Negative/1500gm
Listeria	Negative
E Coli	Negative
Staphylococcus	Negative
Yeast/Mold	100/g Maximum
Antibiotics	Negative



Gustavo Wüst
Export Manager
Hoogwegt U.S., Inc.

A. Low Heat

GRADE "A" NFDM - 40920

Product Definition

Grade A Nonfat Dry Milk

Product Applications

Spray Dried Nonfat Dry Milk is the powder resulting from the removal of the fat and water from fresh Grade "A" Milk. It contains the milk proteins, minerals and carbohydrates in the same relative proportions as they occur in fresh milk.

Chemical Analysis

	<u>Typical Values</u>	<u>Specification</u>	<u>Methodology</u>
Fat	0.80%	1.25% max.	Mojonnier
Moisture (total moisture)	3.5%	4.0% max.	Atmospheric Oven 302° F (150° C)
WPN		6.0 mg/g min.	S.M.E.D.P.
Titratable Acidity		<= .15% max.	ADPI

Microbiological Standards

	<u>Typical Values</u>	<u>Specification</u>	<u>Methodology</u>
Total Aerobic Count	< 10,000/g	10,000/g max.	Standard Methods Agar
Salmonella	Negative	Negative/750g	FDA-BAM
Coliform	< 10/g	10/g max.	Violet Red Bile Agar
Yeast and Mold	< 10/g	100/g max.	Acidified Potato Dextrose Agar

Nutritional Information*

(Mean/100g)

Calories.....	331.29	Sugars (%).....	48.66
Calories from fat.....	6.87	Protein (g).....	≥34.00
Total Fat (g).....	0.76	Sodium (mg).....	471.37
Saturated Fat (%).....	0.48	Calcium (mg).....	3624.05
Trans Fatty Acids (g).....	0.03	Iron (mg).....	0.385
Cholesterol (mg).....	23.85	Vitamin A (IU).....	28.63
Total Carbohydrate (g).....	48.66	Vitamin C (mg).....	7.63

*Nutritional results, although based on limited testing, fall within the expected manufacturing ranges.

Ingredient Statement

Skim Milk

Physical Characteristics

Appearance: Light Cream to White powder
Flavor and Odor: Clean, cooked, slightly sweet-sour, mildly acidic taste; no foreign flavor or odor.

Packaging and Storage

Product is packaged in a 907.194 kg (2000 lb) tote with 3 mil liner. Product is recommended to be stored at no more than 80° F (27° C) and relative humidity under 75%.







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Export Manager
Hoogwegt U.S., Inc.



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A. Low Heat

		Michigan Milk Producers Association 41310 Bridge Street Novi, MI 48376 Phone: 248-474-6672 Fax 248-442-5695			
Product Category:	Non Fat Dry Milk – Spray Processed	Effective:	09/06/2012		
Product Name:	Grade A – Nonfat Dry Milk – Low Heat	Supersedes:	N / A		
Specification #	Issued By: John Connolly	Approve By: Jim Dodson			
1010100					

1.0 Description

Nonfat Dry Milk is the product obtained by the removal of only water from pasteurized skim milk and does not contain any added preservative, neutralizing agent, or other chemicals.

2.0 Physical & Chemical Characteristics

Characteristic	Value	Test Method	COA
Butterfat	≤ 1.25 %	SMEDP	X
Moisture	≤ 4.00 %	SMEDP	X
Scorched Particles	≤ 15.0 mg "B" pad	SMEDP	X
Solubility	≤ 1.2 ml	SMEDP	
Titrateable Acidity	≤ .15 %	SMEDP	X
Total Protein	33% - 38%	SMEDP	
Whey Protein Nitrogen	≥ 6.00 mg/g	SMEDP	X
pH	6.4 – 7.2	SMEDP	X
Color	White to light Cream / natural color	Visual Inspection	
Sensory	Free from Objectionable Flavor or Odors	Organoleptic	X
Antibiotic	Negative (Compliant PMO; Appendix N)	SMEDP	X

3.0 Microbiological Characteristics





Characteristic	Value	Test Method	COA
Standard Plate Count	≤ 5,000 cfu / g	BAM - AOAC	X
Coliform	< 10 cfu / g	BAM - AOAC	X
Escherichia Coli	< 10 cfu / g	BAM - AOAC	X
Yeast & Mold	< 10 cfu / g	BAM - AOAC	X
Coagulase-positive staph aureus (50 g)	< 10 cfu / g	BAM - AOAC	X
Listeria (375 g)	Negative	BAM - AOAC	X
Salmonella (750 g)	Negative	BAM - AOAC	X

4.0 Miscellaneous Descriptions



 Gustave Wüst
 Export Manager
 Hoogwegt U.S., Inc.

A. Low Heat

		Michigan Milk Producers Association 41310 Bridge Street Novi, MI 48376 Phone: 248-474-6672 Fax 248-442-5695			
Product Category:	Non Fat Dry Milk – Spray Processed	Effective:	09/06/2012		
Product Name:	Grade A – Nonfat Dry Milk – Low Heat	Supersedes:	N / A		
Specification #	Issued By: John Connolly	Approve By:	Jim Dodson		
1010100					

Item	Requirement	COA
Allergens	Milk	
Ingredients	Skim Milk	
Shelf Life (from Mfg. Date)	12 months	
Storage Temperature	Dry environment, ambient temperatures	
Shipping Temperature	Same as storage	
Kosher Certificate	Council of Orthodox Rabbis of Greater Detroit	
Halal Certificate	The Islamic Food & Nutrition Council of America	
Pasteurization	Low heat 162.0 °F to 175.0 °F for ≥ 15.0 seconds	

5.0 Nutrition Facts

Component	Value	Component	Value
Calories (Kcal)	362	Potassium (mg)	1794
Calories from fat	7	Vitamin A (IU)	22
Total fat (g)	.77	Vitamin C (mg)	6.8
Saturated fat (g)	.499	Calcium (mg)	1257
Cholesterol (mg)	20	Iron (mg)	.32
Total Carbohydrate (g)	51.98	Riboflavin (mg)	1.55
Sugars (g)	51.98	Phosphorus (mg)	968
Protein (g)	36.16	Ash (g)	7.93
Sodium (mg)	535	Moisture (g)	3.16





- Calculated value of 100 grams of Nonfat Dry Milk based on USDA National Agricultural Library – Agricultural Research Service NDB No: 01091. Analysis may be need for these nutrients as they occur in the final product as required by CFR Title 21, Section 1019.

6.0 Statements

- MMPA Nonfat Dry Milk meets all requirements of North American Free Trade Agreement (NAFTA).
- Products manufactured by Michigan Milk Producers Association do not contain gluten
- MMPA Products are exempted from OSHA Hazard Communication Standard #303 since they are subject to Food and Drug Administration labeling requirements.
- This product was produced from raw milk meeting the somatic cell ($\leq 400,000$ per ml.) and bacterial standard plate count ($\leq 100,000$ per ml.) requirements of Regulation (EC) No 853/2004 Annex III, Section IX, Chapter I, III Criteria for Raw Milk.


 Gustavo Wust
 Export Manager
 Hoogwegt U.S., Inc.

A. Low Heat

		Michigan Milk Producers Association 41310 Bridge Street Novi, MI 48376 Phone: 248-474-6672 Fax 248-442-5695			
Product Category:	Non Fat Dry Milk – Spray Processed	Effective:	09/06/2012		
Product Name:	Grade A – Nonfat Dry Milk – Low Heat	Supersedes:	N / A		
Specification #	Issued By: John Connolly	Approve By:	Jim Dodson		
1010100					

7.0 Plants

	MMPA - Ovid	MMPA - Constantine
Address	431 Williams Street, Ovid MI 48866	125 Depot Street, Constantine, MI 49042
Phone / Fax	Phone 989-834-2221 Fax 989-834-2486	Phone 269-435-2835 Fax 269-435-8310
Plant Identification	IMS 26-123 Europe 1810532	IMS 26-608 Europe 1810166
Bioterrorism Act	15067918418	1581354300
Shipping Hours	Monday – Friday 8:00 AM to 3:30 PM	Monday – Friday 7:00 Am – 3:00 PM

8.0 Packaging

Dimensional Information

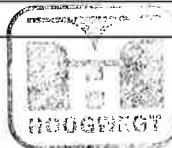
Product Code	Description	Product Weight	Bag Height/Length/Width	UPC Code	Layer / Tiers	Pallet Heights	Product Weight per Pallet
1010100	50# Grade A LH NFDM	50.0 lbs	34.0" x 4.0" x 16.0" Multiwall Kraft bags with polyethylene inner liner	0 77777 10400 2	5 / 10	51 "	2,500 lbs.
1010410	2,000# Grade A LH NFDM tote	2,000 lbs	48.0" x 40.0" x 57.0"	N / A	1	61"	2,000 lbs
1010420	2,200# Grade A LH NFDM tote	2,200 lbs	48.0" x 40.0" x 57.0"	N / A	1	61"	2,200 lbs

Powder Coding

Ovid	Constantine
MFG DATE/LOT NO. 02-05-07V	MFG DATE/LOT NO. 02-05-07C
SUB LOT 001-001	SUB LOT NO. 001-001
100 Bags per lot	100 Bags per lot

9.0 Product Specification History

Effective Date	Revision	Reason for Change / Initiator	Approved By:
09/06/2012	0	Specification birth date, J. Connolly	



Gustavo Wüst
Export Manager
Hoogwegt U.S., Inc.