

Technical Packet

MoistureLokTM

Liquid

COMPARISON OF HUMECTANTS

Ingredient	Humectancy Value	Issues
MoistureLok™	3.00	· None
Invertase	4.00	· Expensive · High pH destroys leavening · Artificial
Invert Sugar	1.00	· Highly acidic-suppresses leavening · High water activity · Short shelf-life in baked goods
High-Fructose Corn Syrup	0.78	· Unstable - Crystallizes at 65°F - Burns at 140°F · Accelerates malliard browning · Does not extend shelf life
Honey	0.72	· Bacteriologically active · Non-standardized ingredient · Flavor hard to mask · High water activity · Accelerates malliard browning · Allergenic
Glycerin/Glycerol	0.60	· Bad aftertaste · Not a very effective humectant
Polyols (Sorbitol, Mannitol Maltitol, Lactitol, Xylitol)	0.58	· Laxative side effect · Not a very effective humectant · Highly acidic-suppresses leavening · Artificial

C.K. Foods Inc. • 220 Viceroy Road, Unit #9 • Concord, Ontario L4K 3C2
Toll-Free (800) 821-8995 • Telephone (905) 760-1176 • Fax (905) 760-1172
E-mail: office@ckfoods.com Website: www.ckingredients.com

©2009

MOISTURELOK™ - LIQUID
PRODUCT SPECIFICATIONS

Description - MoistureLok™ is a liquid, carbohydrate-based ingredient formed from dextrose and dextrin. Mono and disaccharides from dextrose in combination with medium-chain saccharides classified under FDA regulations as dextrin create a very effective, sweet-tasting syrup with natural humectancy and low-water activity. MoistureLok™ is stable at room temperature and does not require refrigeration or heating.

Ingredient Declaration: MoistureLok™ (dextrose, dextrin)

Other Declarations: MoistureLok™ is GMO-free, gluten-free and contains no MSG. It is GRAS (Generally Recognized As Safe) under U.S. food standards. MoistureLok™ is also Kosher and Pareve under supervision of the Orthodox Union (OU).

<u>Proximate Analysis*:</u>	Carbohydrate Profile (naturally occurring)	(%)	76 min.
	Monosaccharides	(%)	51-57
	Disaccharides	(%)	11-15
	Higher Saccharides	(%)	6-12
	Moisture	(%)	20 ± 2
	Protein	(%)	1.0
	Ash	(%)	0.7
	Fat	(%)	0.3
	Solids	(%)	80 ± 2

*These values may vary slightly.

Specific Gravity: 11.8 lbs./gallon

Viscosity: (cps at 70° F/21° C; 80 ± 2 Solids) 10,000 - 16,000 cps

Color: Amber

<u>Microbial:</u>	Total Plate Count	<500/gram	Total Coliform	<0.3/gram
	Yeast	<10/gram	Salmonella (in 100 gram)	negative
	Mold	<10/gram	E. Coli (in 100 gram)	negative
	Staph aureus	negative	Lysteria monocytogenes	negative

Shelf Life, Storage and Shipping: Unopened product is stable for one year. Darkening may occur over time without affecting quality. Product storage and shipping temperature should not drop below 55° F (13° C). Shipping and storage above 90° F (32° C) will accelerate the darkening of the product. Do not refrigerate during either shipping or storage. After opening, use the remaining contents within two months.

Pack Size and Pallet Stacking:

<u>UPC</u>	<u>ITEM</u>	<u>NET WEIGHT</u>	<u>GROSS WEIGHT</u>	<u>PALLET PATTERN</u>
30000	MoistureLok™ - 5 gal. poly pails	55 lbs	58 lbs	12X2=24**
30599	MoistureLok™ - 55 gal. poly drums	640 lbs	666 lbs	4/Pallet**
30712	MoistureLok™ - Tote	3,000 lbs (approximate weight)		
30988	MoistureLok™ - Bulk truck tankers	Available upon request		

** All products must be shrinkwrapped to pallet. Do not double stack pallets or top stack with other products.

C.K. Foods Inc. • 220 Viceroy Road, Unit #9 • Concord, Ontario L4K 3C2
Toll-Free (800) 821-8995 • Telephone (905) 760-1176 • Fax (905) 760-1172
E-mail: office@ckfoods.com Website: www.ckingredients.com

MOISTURELOK™ - LIQUID
CARBOHYDRATE PROFILE

TECHNICAL DATA SHEET

MoistureLok™ is a blend of dextrose and dextrin with a distinctly bland and sweet taste. The carbohydrate profile which appears below is provided as a range due to normal variations.

MoistureLok™ Liquid Carbohydrate Profile

Sugars:	% of Total Carbohydrates
Monosaccharides	67-75%
Disaccharides	14-20%
Other Carbohydrates:	<u>8-16%</u>
	Total 100%

The carbohydrates in MoistureLok™ would be divided into the following categories on labels and claimed according to serving content.

Total Carbohydrates:	76g/100g
Sugars	67g/100g
Total Fiber	0g/100g
Other Carbohydrates	9g/100g

MOISTURELOK™ - LIQUID
TECHNICAL DATA SHEET

<u>Assay*</u>	<u>Analysis</u>	<u>Units</u>
Protein (N X 6.25)	1.0	g/100g
Moisture	22.0	g/100g
Fat	<0.3	g/100g
Ash	0.7	g/100g
Carbohydrates	76.0	g/100g
Calories	308	calories/100g
Sulfite-IC	<0.5	mg/100g
Fiber	<0.1	g/100g
Vitamin A	<20	I.U./100g
Thiamine (B ₁)	0.02	mg/100g
Riboflavin (B ₂)	0.02	mg/100g
Vitamin C	5.3	mg/100g
Niacin	1.06	mg/100g
Calcium	26.8	mg/100g
Iron	0.71	mg/100g
Phosphorous	39.5	mg/100g
Potassium	238	mg/100g
Sodium	39	mg/100g

* The above assay is typical analysis and should not be construed as specifications.

MOISTURELOK™ - LIQUID
MATERIAL SAFETY DATA SHEET

DISCLAIMER - MoistureLok™ is produced according to appropriate food regulations, and it is not a hazardous chemical. The following information is being supplied as a convenience for customers.

SECTION I - PRODUCT IDENTIFICATION

Product Name: MoistureLok™
Food/Chemical Name: Dextrose, dextrin
Chemical Family: Carbohydrate

SECTION II - HAZARDOUS INGREDIENTS

Material: None

SECTION III - PHYSICAL DATA

Boiling Point: 220° F (104° C)
Melting Point: N/A
Specific Gravity: 11.8 lbs/gal
Vapor Pressure: N/A
Vapor Density: N/A
Water Solubility: Completely soluble, slightly cloudy solution
Appearance, Odor, Taste: Amber to dark brown liquid, no odor, bland taste

SECTION IV - FIRE PHYSICAL HAZARD DATA

Flash Point: N/A
Flammable Limits: N/A
Fire Extinguishing Media: Water
Hazardous Decomposition Products: None
Hazardous Polymerization: Will Not Occur
Conditions to Avoid: Fire and Flame
Unusual Fire/Explosion Hazard: None
Incompatibility: Powerful oxidizing agents such as perchloric acid

SECTION V - HEALTH HAZARD

Effects of Overexposure: Inhalation - None known
Ingestion - No health hazard, can be used as human food
Signs and Symptoms of Overexposure: Unknown
Primary Route(s) of Entry: Ingestion
Exposure Limits: None known

C.K. Foods Inc. • 220 Viceroy Road, Unit #9 • Concord, Ontario L4K 3C2
Toll-Free (800) 821-8995 • Telephone (905) 760-1176 • Fax (905) 760-1172
E-mail: office@ckfoods.com Website: www.ckingredients.com

©2009

MOISTURELOK™ - LIQUID
MATERIAL SAFETY DATA SHEET (cont.)

SECTION VI - LISTING AS A CARCINOGEN

National Toxicology Program Annual Report on Carcinogens: Not Listed

International Agency for Research on Cancer Monographs: Not Listed

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Hygienic Practices: Normal housekeeping measures, water cleanup

Protective Measures During Repair/Maintenance: None required

Waste Disposal Method: Landfill - Material is biodegradable and not harmful

Special Fire Fighting Procedures: None

Extinguishing Media: Water or CO₂

SECTION VIII - CONTROL MEASURES

Engineering Controls:	None
Ventilation:	Usual GMP ventilation should be adequate
Work Practices:	No smoking in work area
Respiratory Protection:	Not required
Eye Protection:	Not required
Other Protective Equipment:	Not needed

SECTION IX - EMERGENCY AND FIRST AID PROCEDURES

None

SECTION X - PRODUCT STORAGE

Storage: 55° F (13° C) - 90° F (32° C). Product storage and shipping temperature should not drop below 55° F. Shipping and storage above 90° F will accelerate the darkening of the product. Do not refrigerate during either shipping or storage.

In Use: Partial containers should be resealed. After opening, use the remaining contents within two weeks.

Stability: Unopened product is stable for 12 months.

C.K. Foods Inc. • 220 Viceroy Road, Unit #9 • Concord, Ontario L4K 3C2
Toll-Free (800) 821-8995 • Telephone (905) 760-1176 • Fax (905) 760-1172
E-mail: office@ckfoods.com Website: www.ckingredients.com

©2009

MoistureLok™ LIQUID APPLICATIONS

Bars	Mixes
Breads	Muffins
Breakfast Cereals	Pancakes
Brownies	Pastries & Torts
Cakes	Pies
Caramels	Processed Meat
Caramel Corn	Puddings
Cinnamon Rolls	Rolls
Cookies	Salad Dressings
Crackers	Sausage
Custard	Scones
Danish	Sherberts
Doughnuts	Sorbets
Dry Mix Soups	Sweet Dough
Flan	Toffees
Frostings	Torts
Frozen Desserts	Variegates
Ice Cream	Waffles
Ices	Weight Loss Liquids, Powders and Bars
Icings	Yogurts
Jelly Rolls	

C.K. Foods Inc. • 220 Viceroy Road, Unit #9 • Concord, Ontario L4K 3C2
Toll-Free (800) 821-8995 • Telephone (905) 760-1176 • Fax (905) 760-1172
E-mail: office@ckfoods.com Website: www.ckingredients.com

©2009