

Product Specification Compliance

Question #1: Refer to Spec Document #1 and Data Set #1

1. During a production run of Shredded Cheddar Cheese, the following residual oxygen data from finished packages was taken at the production line for the 3 daily shifts. Compare the data provided on the table versus the provided written specification. Based on your review of this data, which of the following is not true:

- a) Oxygen levels for 100% of the inspected samples during First Shift were within specification.
- b) 20% of the Second Shift samples were outside of the current specification for oxygen level.
- c) 6.66% of the samples tested for the full day were outside of the spec range for oxygen.
- d) 10% of the samples tested for the full day were outside of the spec range for oxygen.
- e) All of the statements are true

Question #2-3: Refer to Spec Document #1 and Data Set #2

From the same production run of Shredded Cheddar Cheese, data was taken based on a sample of the raw material cheese prior to packaging. Data for fat, moisture, salt & pH was recorded at 5 different times on Data Set #2.

2: At what hour was the first time the Cheddar Cheese produced in this facility on this day was considered to be out of specification?

- a) 8:00 AM
- b) 12:00 PM
- c) 4:00 PM
- d) 8:00 PM
- e) 12:00 AM

3: Which statement is true?

- a) All samples are within the specification limits
- b) No samples are within the specification limits
- c) All samples are within the specification limits for pH and Moisture
- d) pH and Fat are within the specification range for the full data set
- e) None of these statements are true

Questions #4&5: Refer to Spec Document #2 & Provided Samples

The provided sample of Pink Lemonade Crystal Light was pulled from the production line for the quality inspection at 6:30 PM. Based on the provided specification, samples and weight and dimensional measurement tools provided, please answer the following questions.

4. Product net contents for the saleable unit are considered to be:

- a) Within specification as the filled outer container meets the target for net contents.
- b) Out of specification as the filled outer container exceeds the upper spec limit for net contents.
- c) Out of specification as the filled outer container does not meet the lower spec limit for net contents.
- d) Within specification as the outer container exceeds the upper spec limit however the interior sticks are within specification for net contents.
- e) None of the above statements are true

5. Based on the provided samples, available measurement tools and provided specification, identify the true statement:

- a) All 6 sticks are within specification for package length
- b) 4 of the 6 sticks are not within specification limits for package length
- c) 6 of the 6 sticks are not within the specification limits for package length
- d) There is not enough data available to determine a response
- e) None of these statements are true

DATA SET #1

	First Shift	Second Shift	Third Shift
Sample 1	0.40%	2.00%	1.90%
Sample 2	0.60%	3.50%	1.80%
Sample 3	1.80%	2.10%	0.70%
Sample 4	1.60%	1.69%	1.90%
Sample 5	2.00%	0.40%	1.80%
Sample 6	1.90%	0.60%	0.70%
Sample 7	1.80%	1.90%	0.40%
Sample 8	0.70%	1.80%	0.60%
Sample 9	0.80%	0.70%	1.80%
Sample 10	1.40%	1.70%	1.40%

DATA SET #2

Date	Time	Moisture	Salt	Fat	pH
1/16/2017	8:00 AM	33.00%	1.85%	37.00%	5.05
1/16/2017	12:00 PM	31.00%	1.86%	36.10%	5.00
1/16/2017	4:00 PM	36.00%	1.53%	33.00%	5.01
1/16/2017	8:00 PM	37.00%	2.06%	37.15%	5.15
1/17/2017	12:00 AM	35.00%	1.49%	34.00%	5.12

SPECIFICATION DOCUMENT #1

8oz Cheddar Cheese Shreds

Product Spec Report

Part: 10028758

Confidential

Specification Type: Product/Package

Last Modified On: 5/22/2017

Classification

Product	Product
	Cheese
	Shredded Cheese

Packaging

Primary Package (inches)			
	Target	Min	Max
Length	8	7.8	8.2
Width	6.25	6.15	6.4
Depth	0.25	0.2	0.3

Secondary Package (inches)			
	Target	Min	Max
Length	16	15.7	16.3
Width	8.5	8.2	8.7
Depth	4	3.75	4.25

Finished Package			
	Target	Min	Max
Net Weight (g)	226	225	227

Product/Package Quality

Residual Oxygen: to be tested after packages are flushed with nitrogen, filled and sealed but before put into the finished package case. Test frequency is to be 10 packages per production line every 30 minutes.

Target	1.50%
Minimum	0
Maximum	2.00%

Product Attributes

	Moisture	Salt	Fat	pH
target	35%	1.80%	34%	5.05
min	33%	1.50%	32%	4.9
max	37%	2.10%	37%	5.2

SPECIFICATION DOCUMENT #2

Multi-Serve 2.9oz Pink Lemonade 6ct canister

Finished Packaging Spec Report – Saleable Unit

Part: 10023489

Specification Type: Product/Package

Confidential

Last Modified On: 5/22/2017

Reason for Issue

5/22/2017 – Created New for product launch

Classification

Product	Description
	Product
	Beverages
	Refreshment Beverages
	Powdered Beverages
	Artificially Sweetened

Packaging

Primary Package - Stick			
	Target	Min	Max
Height (mm)	153	150	155
Width (mm)	35	33	37
Secondary Package - Canister			
	Target	Min	Max
Height – Outside (inches)	6.415	6.4	6.43
Width – Inside (inches)	2.04	2.03	2.05
Diameter – Outside (inches)	2.78	2.77	2.88
Finished Package			
	Target	Min	Max
Gross Weight – Stick (g)	15.8	15.7	16.3
Net Weight – Finished Package (g)	85	82	90

Pack Out

- Canister with shrink film: 30 grams
- Lid: 2.7 grams
- Stick film: 2 grams
- Artificially Sweetened Powdered Drink Mix To Which the Consumer Adds Water
- 6 sticks/canister