

# Product Packaging Position Study

Proposal for sustainable packaging for  
Airborne Immune Support  
Effervescent Tablets

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Packaging Sustainability  
MCAD | Spring 2019

## TABLE OF CONTENTS

Competitive Environment Analysis	1
Market Segment Focus Group Analysis	9
Materials, Processes, Waste, and Energy	14
Supply Chain Analysis	22
Repositioning Proposal	30
Work Cited	36
Appendix	39

# Product Packaging Position Study

## Proposal for more sustainable packaging for AIRBORNE Immune support effervescent tablets

This report will analyze the current climate of the market of Airborne tablets and its competitors. Then offer options for possible repositioning for sustainable packaging options. This analysis will take a look at the products purpose, mission, and current packaging flaws that lead to unsustainable packaging, supply chains, and end of life disposal.



# INTRODUCTION

## Schiff Nutrition International

**FORMERLY INDUSTRY** Weider Nutrition  
Dietary supplements  
Vitamin supplements  
Pharmaceutical

**FOUNDED** 1936; 83 years ago  
Salt Lake City, Utah,  
United States

**FOUNDER PRODUCTS** Joe Weider  
Airborne  
MegaRed  
Move Free  
Tiger's Milk

**OWNER WEBSITE** [Reckitt Benckiser](http://ReckittBenckiser.com)  
[Schiffvitamins.com](http://Schiffvitamins.com)



Schiff Vitamins is the manufacturer of dietary supplements such as Airborne, MegaRed, Move Free, and Digestive Advantage.

In partnership with Pharmapacks

### SCHIFF VITAMINS REPRESENTATION

“Airborne products are a specially crafted blend of vitamins, minerals and herbs designed to support your immune function and overall health. Browse our Airborne health products by category, including gummies, chewable tablets and effervescent tablets.

Airborne effervescent tablets have a fast-acting absorption formula and come in four delicious flavors that can be added to your favorite beverage. This gluten-free tablet contains an excellent source of Zinc & Selenium, 350mg of an herbal blend including Echinacea & Ginger, and 1000MG of Vitamin C.”

WEBSITE MERCHANDISING BY SCHIFF VITAMINS



Airborne Zesty Orange Effervescent Immune Support Supplement - 10ct


No Reviews Write the First Review





**BUY ONE, GET ONE 50% OFF**  
See More Products


**\$9.29**  
Option  
10ct - \$9.29 USD

City

- 1 + **Add to cart**



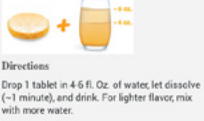

Description	Reviews	Ingredients	Usage
<p>Airborne Effervescent Tablets provide immune support in a great tasting formula*. Each serving (1 tablet) delivers a blast of 1,000 mg of Vitamin C plus 13 vitamins, minerals, and herbs, including Echinacea and ginger. Adults and Children 14 years and older: simply drop 1 tablet in a glass of water or favorite beverage, let dissolve (about 1 minute) and drink. Can repeat every 3-4 hours, up to 3 times per day. Children 12-13 years old, repeat every 3-4 hours as necessary, up to 2 times per day, no more than 2 tablets. Gluten Free. Visit <a href="http://AirborneHealth.com">AirborneHealth.com</a> to learn more.</p> <p>*These Statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.</p>			
 <p><b>Vitamin C</b></p> <p>Enhance Immune Cell Function</p> <p>The chief vitamin and antioxidant in immune health.* It works on a cellular level to adjust high levels of stress hormones and enhance the function of immune cells.</p>	 <p><b>Antioxidants</b></p> <p>Inactivate Free Radicals</p> <p>Vitamins A, C &amp; E all have antioxidant properties to inactivate free radicals that can harm cells, protect DNA, and promote immune health.</p>	 <p><b>Zinc</b></p> <p>Supports Function of Cells</p> <p>An essential nutrient that is required for over 300 different enzymes and supports the number and function of several different immune cells.</p>	 <p><b>Herbal Blend</b></p> <p>Proprietary Herbal Blend</p> <p>Each serving contains 350mg of a proprietary herbal blend of Echinacea and other herbs from plant parts.</p>



Airborne has a Specially Crafted Blend

Each Effervescent Tablet contains:

- 1,000mg of Vitamin C
- High in Antioxidants (Vitamins A, C & E)
- Excellent Source of Zinc & Selenium
- 350mg of Herbal Blend including Echinacea & Ginger
- Gluten Free

Helps support your immune system\*

Airborne Original Effervescent Tablets help support your immune system with a crafted blend of Vitamin C and 13 vitamins, minerals & herbs.\*

The effervescent formula offers fast-acting absorption, and is Gluten Free. They also come in a great-tasting Zesty Orange flavor. Check out other great flavors too! - Very Berry, Lemon Lime, and Pink Grapefruit.

# INTRODUCTION

## About Airborne

### PRODUCT BACKGROUND

Airborne is a dietary supplement containing herbal extracts, amino acids, antioxidants, electrolytes, vitamins, and other ingredients marketed to prevent the common cold and improve immune function.

The formula for Airborne was developed by Victoria Knight-McDowell, a former school teacher from Carmel, California. She began brewing herbal and vitamin cocktails in the early 1990s and selling them in tablet form to local drug stores. Later on, Knight-McDowell contracted cartoonist Lloyd Dangle to create Airborne's brand and packaging. In 1997, specialty grocery chain Trader Joe's ordered 300 cases of Airborne tablets to sell, and by 1999 other larger chains, such as Wal-Mart and Rite Aid, began stocking Airborne.

### PRODUCT MISSION

Airborne Effervescent Tablets provide immune support in a great-tasting formula\*

\*These Statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

### PRODUCT DESCRIPTION

Airborne effervescent tablets have a fast-acting absorption formula and come in four delicious flavors that can be added to your favorite beverage. This gluten-free tablet contains an excellent source of Zinc & Selenium, 350mg of an herbal blend including Echinacea & Ginger, and 1000MG of Vitamin C.

### PRODUCT DISTRIBUTION

Airborne effervescent tablets can be found at small grocers, big box chains, pharmacies, gas stations, and at online distributors such as [Amazon](https://www.amazon.com) and the manufactures website [SchiffVitamins.com](https://www.SchiffVitamins.com)

HELPS SUPPORT YOUR  
**IMMUNE SYSTEM\***



#### 1 Effervescent Tablet =

- 1,000 mg of Vitamin C
- High in Antioxidants (Vitamins A, C & E)
- Excellent Source of Zinc & Selenium
- 350 mg of Herbal Blend including Echinacea & Ginger

Zesty Orange Flavor



Gluten Free  
No Preservatives

# Competitive Environment Analysis

The following section explores the competitive market of immune support products to further understand the current packaging of Airborne and its competitors to develop a strategy for more sustainable packaging.

# COMPETITIVE ENVIRONMENT ANALYSIS

## Market Share Overview

### DIETARY SUPPLEMENTS MARKET SIZE

Is Projected To Reach \$278.02 Billion by 2024.

According to the report published by Grand View research, the global dietary supplements market size is expected to reach USD 278.02 billion by 2024, favorable outlook towards medical nutrition market in light of increasing application for the treatment of malnutrition and cardiovascular disorders is likely to promote the market for dietary supplements.<sup>1</sup>

### AIRBORNE MARKET SHARE

OTC (over the counter) immune supplement category is valued at \$1 billion, growing at 3%.<sup>3</sup>

Within this is the of immune support, which is valued at \$0.5 billion and growing at 5-6%.<sup>4</sup>

### DOES AIRBORNE IMMUNE SYSTEM SUPPORT WORK?

Because it is sold as a dietary supplement and not as a drug, current American law allows Airborne to be marketed without prior review and approval of testing results that demonstrate that it provides a medical remedy.

There are no studies supporting Airborne's effectiveness that meet scientific standards.<sup>2</sup>

## Times Article: Why the Supplements Industry Is So Powerful



The federal government doesn't have much power over the supplements industry thanks to a 1994 law, the Dietary Supplement Health and Education Act, which prevents the products from the scrutiny and approval given to other drugs. "I could pretty much create something this afternoon in my kitchen and sell it and not have to do any kind of testing ahead of time," author Catherine Price told TIME last month. Price is the author of Vitamania, a new book about the supplements and vitamins industries.



By DAN MITCHELL

March 11, 2015

[Read Full Article Here](#)



# COMPETITIVE ENVIRONMENT ANALYSIS

## Store Merchandising

On the packaging of this Airborne product, the first thing you read when looking at the packaging is "IMMUNE SUPPORT" in big bold letters. This leads us to believe they are wanting to be targeted as a health supplement. In both grocery stores I went to, Airborne was merchandised next to Emergen-C. Emergen-C brand is their #1 competitor as shown in this photo.

As you can see on the right, Emergen-c product diversification is far greater than Airborne's. Emergen-c taking up 3/4 of the shelf space and Airborne only occupying 1/4.

The two main brands within the OTC (over the counter), immune support market segment are Airborne and Emergen-C.<sup>4</sup>

**AIRBORNE  
PRODUCTS 25%  
of OTC shelf space**

**EMERGEN-C  
PRODUCTS 75%  
of OTC shelf space**





# COMPETITIVE ENVIRONMENT ANALYSIS

## Direct Competitors



### Airborne Effervescent Tablets

MSRP: \$9.29

PKG Qty: 10

Single Tablet Price Breakout: \$0.92

**Ingredients:** Vitamin A as retinyl palmitate, Vitamin C, Vitamin E, Riboflavin, Magnesium, Zinc Selenium, Manganese, Sodium, Potassium Herbal extract blend containing: Lonicera (flower), Forsythia (fruit), Schizonepeta (aboveground parts), ginger (dried rhizome), Chinese Vitex (fruit), Isatis (root) and Echinacea (aboveground parts)

**Amino acids:** glutamine (as L-glutamine) and lysine (as L-lysine HCl);

**Other ingredients:** maltodextrin, sorbitol, citric acid, sodium bicarbonate, potassium bicarbonate, orange flavor, mineral oil, acesulfame potassium, and sucralose.



### Emergen-C Packets

MSRP: \$16.99

PKG Qty: 30

Single Packet Price Breakout: \$0.50

### Ingredients:

Vitamin C, Thiamin, Riboflavin, Niacin, Vitamin B6, Folic Acid, Vitamin B12, Pantothenic, Acid Calcium, Phosphorus, Magnesium, Zinc, Manganese, Chromium, Sodium, Potassium, Fructose, Maltodextrin, Citric Acid, Malic Acid

**Contains <2% of:** Acacia, Beta-Carotene (color) Dried Orange Juice Concentrate (color and flavor), Glycine, L-Aspartic Acid, Natural Flavors Orange Oil, Silicon Dioxide, Tartaric Acid, Tocopherols (to preserve freshness).



PHOTO CREDIT

### Nuun Effervescent Tablets

MSRP: \$7.00

PKG Qty: 10

Single Tablet Price Breakout: \$0.70

### Ingredients:

Organic sugar, Citric acid, Natural flavors, Stevia leaf extract, Avocado oil, Rice concentrate

# COMPETITIVE ENVIRONMENT ANALYSIS

## Indirect Competitors



**MultiVites Daily Chewables Vitamins**  
 MSRP: \$15.99  
 PKG Qty: 150  
 Single Chewable Price Breakout: \$0.10

**Ingredients:** Other Ingredients: Glucose syrup, sugar, water, gelatin; less than 2% of: blend of oils (coconut and/or palm) with beeswax and/or carnauba wax, citric acid, colors (annatto extract, blueberry and carrot concentrates), lactic acid, and natural flavors. Contains: tree nuts (coconut).

**Active Ingredients:** Tinyl palmitate, ascorbic acid, cholecalciferol, d-alpha tocopherylacetate, inositol niacinate, pyridoxine hcl, folic acid, cyanocobalamin, biotin, calcium d-pantothenate, chromium picolinate, molybdenum citrate, choline bitartrate, lutein, boron citrate. Other Ingredients: glucosesyrup, sucrose, gelatin, natural flavors, citric acid, lactic acid, fractionated coconut oil, colors (carrot And blueberry juices, annattoextract) And beeswax. This product contains natural colors And flavors. Contains no wheat (gluten), milk, eggs, peanuts or soy.



**Nature's Bounty Vitamin C Supplement**  
 MSRP: \$16.69  
 PKG Qty: 100  
 Single Pill Price Breakout: \$0.17

**Ingredients:** Vitamin C (as Ascorbic Acid)  
**Other Ingredients:** Vegetable Cellulose.  
 Contains <2% of: Silica, Vegetable Magnesium Stearate, Vegetable Stearic Acid



**Kyolic Immune Supplement**  
 MSRP: \$23.55  
 PKG Qty: 200  
 Single Pill Price Breakout: \$0.12

**Ingredients:** Vitamin C (calcium ascorbate)  
 Aged Garlic Extract™†† Powder (bulb)  
 Premium Mushroom Complex, Shiitake, Maitake, Poria Cocos, Reishi and Agaricus, Astragalus extract (root), Oregano extract (leaf)  
 Olive Leaf extract (Oleuropin 18%)  
**Other Ingredients:** Gelatin and magnesium stearate (vegetable source).



**Zicam Cold Remedy Tablets**  
 MSRP: \$12.40  
 PKG Qty: 18  
 Single Tablet Price Breakout: \$0.69

**Ingredients:**  
 Zincum aceticum 2x, Zincum gluconicum 1x, ascorbic acid, crospovidone, FD&C yellow no. 6 aluminum lake, magnesium stearate, mannitol, mono-ammonium glycyrrhizinate, natural and artificial flavor, sodium starch glycolate, stearic acid, sucralose



**Orange Fruit**  
 MSRP: \$1 to \$2 per pound = \$7.50  
 PKG Qty: Avg weight 5lbs  
 Single Unit Price Breakout: \$0.50 to \$1 on average<sup>5</sup>

**Ingredients:**  
 Sugars, Dietary fiber, Fat, Protein, Vitamins, Vitamin A, Thiamine (B1), Riboflavin (B2), Niacin (B3), Pantothenic acid (B5), Vitamin B6, Folate (B9), Choline, Vitamin C, Vitamin E, Minerals, Calcium, Iron, Magnesium, Manganese, Phosphorus, Potassium, Zinc  
**Other constituents:** Water

PHOTO CREDIT

# COMPETITIVE ENVIRONMENT ANALYSIS

## Costs by brand and location availability

	PACKAGING	QTY/SERVING	CLARK'S	RIDGWAY MOUNTAIN MARKET	WALMART	CITY MARKET	AMAZON	AVG COST	NATURAL*
AIRBORNE	plastic tube	10 tablets	\$9.40	\$8.29	\$4.69	\$6.99	\$4.69	\$6.81	X
EMERGEN-C	single packets	30 packets	\$17.99	\$16.99	\$9.97	\$9.99	\$9.34	\$12.86	-
NUUN	plastic tube	10 tablets	\$7.00	-	\$9.31	\$6.99	\$5.38	\$7.17	X
MULTIVITES	plastic bottle	150 gummies	-	\$15.99	\$8.88	\$9.99	\$8.88	\$10.94	X
NATURE'S BOUNTY C	plastic bottle	100 capsules	-	\$16.69	\$7.40	\$12.49	\$9.58	\$11.54	X
KYOLIC	plastic bottle	200 capsules	-	\$23.55	\$16.07	-	\$13.37	\$17.67	X
ZICAM	plastic bottle	18 tablets	\$14.00	\$13.50	\$9.97	\$11.49	\$9.96	\$11.78	-
ORANGE	orange peel	1 orange	\$2.70/lb	\$1.90/lb	\$1.40/lb	\$1.69/lb	-	\$1.92/lb	X

\*Natural = Can this product be perceived as natural, organic, or homeopathic?

## OPPORTUNITIES

### Current Packaging Breakdown Consumer Communication

Definition: An effervescent tablet in a glass of water. Effervescent or carbon tablets are tablets which are designed to dissolve in water, and release carbon dioxide. They are products of compression of component ingredients in the form of powders into a dense mass, which is packaged in blister pack, or with a hermetically sealed package with incorporated desiccant in the cap. To use them, they are dropped into water to make a solution. The powdered ingredients are also packaged and sold as effervescent powders or may be granulated and sold as effervescent granules. Generally powdered ingredients are first granulated before being made into tablets.<sup>7</sup>

Definition: An immune support products is a concentrated form of a naturally occurring compound, chemical, or enzyme that has been encapsulated in an easy-to-take, convenient form.<sup>3</sup>

Overall Branding: Airborne is the most recognizable brand with over 70% Consumer awareness.<sup>4</sup>

Color Psychology: ORANGE  
Enthusiasm & Attention  
Orange is a combination of yellow and red and is considered an energetic color.  
Orange calls to mind feelings of excitement, enthusiasm, and warmth.  
Orange is often used to draw attention, such as in traffic signs and advertising.  
Orange is energetic, which is perhaps why many sports teams use orange in their uniforms, mascots, and branding.<sup>6</sup>



Illustration Messaging: From observation it has a playful and fun look and feel.

# OPPORTUNITIES

## Packaging Redesign

Here is a SWOT analysis based on observation and incite from the competitive analysis.

STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
<p>Within the OTC, immune supplement market, Airborne is the most recognizable brand with over 70% consumer awareness.<sup>4</sup></p> <hr/> <p>Airborne's Market share is growing at an accelerated pace.<sup>4</sup></p> <hr/> <p>It is has a strong placebo affect.</p> <hr/> <p>Those that believe the product works are loyal customers.</p> <hr/> <p>The current packaging will protect the product until use.</p> <hr/> <p>The current packaging is light and transports well.</p>	<p>The current packaging has no awareness towards sustainability or environmental stewardship.</p> <hr/> <p>Overall the brand looks outdated to a younger demographic whereas Nuun product looks modern, clean, and natural.</p>	<p>A brand redesign could identify Airborne as a leader in immune support supplements.</p> <hr/> <p>A LEGITIMATE study in product effectiveness could widen market and consumer faith.</p> <hr/> <p>A sustainable packaging certification could suede consumer purchase over Emergen-C.</p> <hr/> <p>A proven effective product could over take the market.</p>	<p>On the Internet the general consensus follows this line of thinking on if the product actually works:</p> <p>"It's a cleverly marketed vitamin supplement with no scientific support for any health benefits. How do they get away with it? Actually, Airborne paid \$23 million back in 2008 to settle a class-action lawsuit over its advertising. They had been calling Airborne a "miracle cold buster." According to the Center for Science in the Public Interest's David Schardt:</p> <p>Airborne is basically an overpriced, run-of-the-mill vitamin pill that's been cleverly, but deceptively, marketed".<sup>8</sup></p> <hr/> <p>Emergen-C could overtake the market share, and drowned Airborne.</p>



# Market Segment Focus Group Analysis

Looking at the Immune support supplement market through the lens of a focus group or individual perspectives opens conversations to the current status of the packaging and possible demand evolutions.

# FOCUS GROUP ANALYSIS

## Current Perspectives

### COLLECTIVE OPINION

The general opinion of the current packaging is that it is eye-catching due to the bright orange color on the secondary box that the primary packaging is merchandised in on the shelf. Additionally, the tag lines are positive call outs that draw attention, such as, “helps your immune system” and “blast of vitamin c”. However, the overall branding and current illustrations turn off potential customers after having a closer look and maybe even could be concluded that it is the reason for attention diversion or drop-off. Some mentioned, “[the packaging is] very orange and the tablets in the glass remind me of a science experiment”. Another person remarked, “has a childish feel”, which is an interesting point because this product is not marketed towards children –only adults.



### THOUGHTS ON THE BRANDING

Many remarked that the current branding is busy, jolting, and looks outdated. As one person said, “It looks very “90’s/early 2000’s”. Even the cartoon’s haircut. It’s a cartoon but the text does not seem to be made for kids so it is very much an adult product.”

The black and orange color palette is not pleasant for most onlookers. From what could be gathered from responses, it is almost as if the producers of the packaging got it half right, with the straight forward messaging, the orange color, and the sense that this is a taste good, feel good product. Then they went wrong when trying to mesh the cartoon style with it. An individual pointed out, “Orange = vitamin C to me.” Another said, “I think the orange color helps reinforce the association with the citrus fruit and vitamin C.” From this, a conclusion can be drawn that the orange color is generally a positive attractant.

### WILL THIS PACKAGING ENSURE REPEAT CUSTOMERS?

Having the focus group go through the process of opening the packaging to get the tablets provided inciteful feedback: The exterior box, secondary packaging, is across the board thought to be unnecessary and wasteful.

The primary packaging is well liked (the plastic tube). It is durable, portable, and satisfying, even though it is perceived as wasteful, throwaway plastic, it has possibilities. A major statement that kept recurring throughout the discussions was, “I find [the plastic tube] interesting as it could be reusable or re-purposed”. However, a counter statement presented an opinion that should be taken into consideration if a reuse initiative were initiated, “I have mixed feelings about reusable containers for medicine –if you are only using the product when you are sick, that would make the packaging feel contaminated once you touch and open it.”

# FOCUS GROUP ANALYSIS

## Inspirations for Re-Design

WHAT [CURRENT MARKET]PACKAGING ATTRACTS YOU THE MOST?



Nuun packaging B took a large lead in the current market packaging that is most attractive. This could be due to its simple modern messaging and typography choice as well as the subtle utility of the orange color. F and C tied, F having more of a natural smart consumer look whereas C utilizes the orange=citrus, taste good, feel good look.

WHICH PACKAGE COULD YOU IMAGINE WOULD BE BEST FOR AIRBORNE EFFERVESCENT TABLETS?



B won in possible new choices still using the tube shape, may induce the same aspects of portability. However, B is made out of a paper product so could be seen as a less harmful package. A also has the cylinder shape and has a earthy nature feel to it. C's branding is strong and could be the attractant. Due to consumers being attracted to C, could reshape of the tablet be a positive design change?

During discussions there were many products that were suggested to look to for possible inspirations such as other non-direct effervescent tablet products as well as makeup compacts and other on-the-go product packaging.

### REDESIGN INSPIRATION:

Does it need to be a saucer shape? Why not a cube, or a shape more durable?

What other products could you draw inspiration from?

## FOCUS GROUP ANALYSIS

### 5 Top Takeaways Post Discussions

- 1** Competitor research has been supported with responses alluding to Emergen-C being the main competitor. Emergen-C portable single dose packets hold a lot of value. This product is sold in bulk and meant for on the go. The packaging of the single packets is perfect for on-the-go immune system boosts.
- 2** There seems to be a stigma to when one should consume this product. Consumers are under the impression that this product is only to be consumed when sick or as a preventative to getting a cold. Generally not seen as a daily or even weekly supplement.
- 3** The illustration aspects of the branding look and feel deter people more than attract consumers from picking up and purchasing. In the packaging redesign, it would be highly recommended to remove illustration style from overall product branding.
- 4** The current travel-ability and transport aspects of current primary packaging is a major appeal to consumers. How can this design be pushed to be sustainable without losing its portability? Is there an opportunity for a refill or reuse system to be put in place?
- 5** The hot words that kept being repeated for what attracts people to packaging are: simple, clean, clear hierarchy, straight forward –no hype, nothing unnecessary.

# FOCUS GROUP ANALYSIS

## Inspirations for Re-Design

### SUGGESTIONS FOR REDESIGN:

- Less materials
- Get rid of the box

People are alluding to the exterior box with these generalization. Additionally, the tube plastic is super thick and there is a lot of excess material that on the inside of the tube that should be looked at for purpose and removal.

- Made from recyclable materials
- Made out of biodegradable
- Less ink wasted
- Less harmful than plastic

This was a question, and statement alike. Currently, the tube is not made out of recycled plastic. It seems consumers don't want to give up the current affordances the tube has with mobility and durability, yet they want it to be eco-friendly.

- Simpler design
- Needs to travel well!

New branding seems to be a necessity, the current brand is not attractive and might be sending the wrong message. Also, with packaging redesign make sure not to lose the attractive nature that the current cylinder tube has.

### DIRECT QUOTES TO KEEP IN MIND:

“How great would it be if the packaging were not only made out of better material than plastic but also had a dual function so they could continue using the container after the product is gone (which they would be more inclined to if it looked nice) - something travel related even, like a place to store your ear buds without them getting tangled/smoothed or a serving of nuts for a snack etc.”

“If you're already traveling with it, when it's gone there could be a section of the label for you to write the new contents / perforate the label so you can easily take the part with marketing information off and just have a sleek travel case.”



# Materials, Processes, Waste and Energy

In this section, Airborne Effervescent Tablets packaging materials will be examined to understand current pollutive or inefficient structures and reveal opportunities for more sustainable packaging solution. A cross-pollination of ideas from similar and non-similar products will be considered to widen the alternatives for materials and objectives of the product and packaging purposes.



## MATERIALS

### Current Packaging Explained

The article to the right, written by Packaging World, illustrates the approach and product needs that lead to the current packaging.

#### EFFERVESCENT TABLETS GO 'AIRBORNE' IN TUBES

Knight-McDowell Labs' quest for an alternative to foil packaging for its effervescent tablets led to a rigid, polypropylene injection-molded container.



After exploring various options, Knight-McDowell began specifying Süd-Chemie's effervescent-Pak™, an injection-molded polypropylene container and a polyethylene closure with a silica gel adsorbent to trap moisture.

Effervescent tablets are often packed inside heat-sealed foil pouches that are inserted into cartons. Because the company was targeting travelers as an important market, it saw significant drawbacks in foil packaging. First, it doesn't provide protection against tablet breakage the way a rigid container does. Second, because each tablet is wrapped individually, the small size often prohibits bright, attractive graphics from being printed on the packaging.

The rigid effervescent-Pak, on the other hand, protects against tablet breakage and has a surface that accepts full-color graphics.

Its cap design also sets it apart. The snap-on PE cap features tamper-evidency as part of its design. The effervescent-Pak is designed with a small well around its edges, so that when the cap is pushed on during the capping process, it locks behind the edges, thus forming a breakaway band that prevents tampering.

Molded into the underside of the injection molded PE cap is a flexible spiral spring. Not only does it house the moisture-adsorbing desiccant, but it also holds the tablets securely in place, thus preventing breakage. »

DECEMBER 31, 2000

[Read Full Article Here](#)



# PACKAGING EXPLAINED

## Current Packaging Breakdown



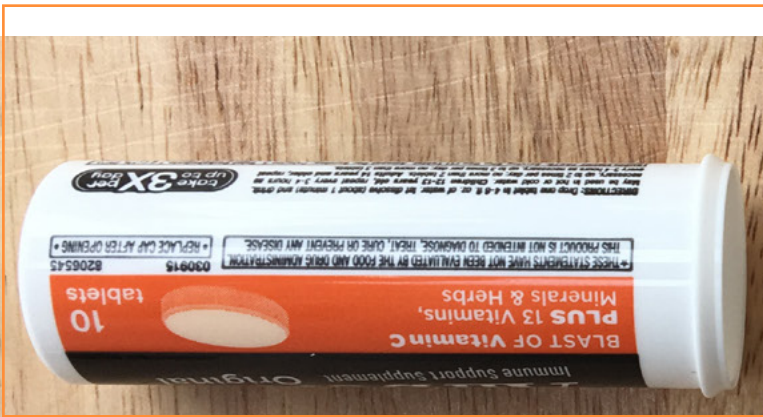
**APPROXIMATELY 1 INCH OF DEAD SPACE & EXTRA PLASTIC WASTED**

**DOUBLE-HELIX COMPRESSION SYSTEM (VOID FILL):** uses 0.8" plastic spring to make up for empty space in container so tablets do not break before use.

**PLASTIC TUBE:** Used for primary packaging. Waterproof. Durable. Travels well.

**PLASTIC RING:** Used to seal primary packaging. Tears off when opening primary packaging for the first time. Could be replaced with different sealing mechanism to reduce Plastic throw aways.

**PLASTIC LID:** Used as reusable top to open and close primary packaging.



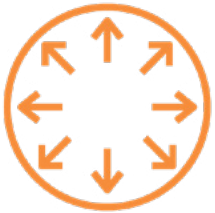
## USER NEEDS

### Exploring the User Interface



#### PORTABILITY

Packaging needs to be a easy to travel size and shape.



#### ERGONOMIC LID

Easy multi-use open and close lid system.



#### BULK OPPORTUNITIES

Easy to refill.





## PRODUCT NEEDS

### Exploring the Structure



#### **WATERPROOF**

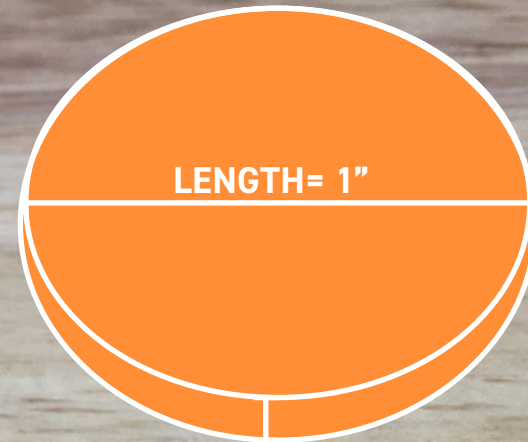
Packaging needs to keep water and moisture out of inside of the container that stores the effervescent tablets



#### **PROTECT INTEGRITY OF PRODUCT**

Packaging needs to support the shape of the effervescent tablet until ready to be put in water to react.

CIRCUMFERENCE= 3.14"



WIDTH= 0.125"



# PACKAGING INSPIRATION

## Possible Materials and Structures

Cross-product opportunities for materials and structures are illustrated below.

### MATERIALS



**Recyclable Cardboard Cylinder Packaging:**  
Made from paper. Full recyclable.<sup>14</sup>



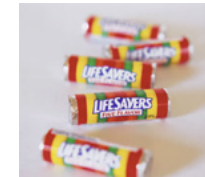
**Mushroom® Packaging:**  
Made from mycelium and the agricultural byproduct of hemp. It's a high-performance packaging solution that's cost-competitive with conventional foams, yet 100% home compostable.<sup>11</sup>



**Milk Casein Plastic:**  
Biodegradable. Edible. 500x better at keeping oxygen away from food.<sup>12</sup>



**Bees Wax Wraps:**  
Plastic free. Reusable, biodegradable, and compostable.<sup>13</sup>



\*Tablets are weak when single but strong all together



**Stasher Silicone:**  
100% pure platinum food grade silicone bags are the healthy alternative to plastic.<sup>13</sup>

### STRUCTURES



# OPPORTUNITIES

## Packaging Redesign

After the analysis of the mandatory packaging requirements and restrictions that the product needs, consumer needs there are still an infinite amount of possibilities for a packaging redesign that is sustainable, recyclable and/or biodegradable. Moving forward we will consider packaging opportunities that do not change the current constitution of the product shape and size. Below will break out the 3 major opportunities of focus:

# 1

### MATERIAL LIFECYCLE AND END OF LIFE RESPONSIBILITY

Focus on replacing plastic with alternative materials that still offer all the same benefits that apply to being a durable and travelable structure while adjusting the packaging life span to not be longer than that of the product after purchase through materials that easily biodegradable or recycle.

Focus on making label for packaging clear labeled so that consumers know how to dispose of packaging at end of life. Current plastic HDPE and PP are easily recyclable but not currently labeled anywhere on packaging.

# 2

### LESSEN OVERALL MATERIALS USED

This opportunity will be approached from a three step method:

1 Redesign the lid system to use less plastic or alternative material by eliminating spring double helix.

2 In order to due this a keep product integrity intact the tube will need to be shortened to fit to the exact length of the 10 tablets.

3 Completely eliminate secondary packaging. Through this analysis it has been deemed unnecessary.

# 3

### DESIGN BULK PACKAGING OPPORTUNITY

Look for packaging that is made to store in bulk 50-100+ tablets. Packaging needs to store well in a home environment i.e., a pantry.

Then design tube (primary) packaging to travel well and communicate intention of product Packaging (bulk and travel size) systems.



# Supply Chain Analysis

The Supply Chain section will explore vendors of material options for different packaging solutions. Each possible vendor material option provided will be examined via the materials life cycle and the suppliers business practices to enforce why it is being suggested as a sustainable packaging provision. This will be executed by following the Sustainable Packaging Coalition (SPC) guidelines as a framework to access options.

# SUSTAINABLE PACKAGING SOLUTIONS

## 3 Possible Packaging Materials and Suppliers Examined

### CRITERIA FOR DECIDING ON AND VERIFYING VENDOR PARTNERS:

#### Sustainable Packaging Definition (rewritten in question form)<sup>15</sup>:

- Sustainable Packaging is beneficial, safe, and healthy for individuals and communities throughout its life cycle?
- Does it meet market criteria for both performance and cost? Is it sourced, manufactured, transported, and recycled using renewable energy?
- Does it optimize the use of renewable or recycled source materials? Is it manufactured using clean production technologies and best practices? Is made from materials that are healthy throughout the life cycle? Is physically designed to optimize materials and energy? Is effectively recovered and utilized in biological and/or industrial closed loop cycles?

The SPC guidelines outlined on their website:

- Sourced Responsibly
- Optimized for efficiency
- Effectively Recovered
- Non-ToxicLow Impact

#### Additionally here are the major factors that will help guide the decision-making process:

- Design with one material for easy recycling & disposal processing.
- Utilize innovative systems to uphold the above statement such as sealing for shelf life with a perforated lid. Ensure the packaging contains the end of life education and directions on the packaging to help consumers dispose responsibly.
- Packaging will need to be labeled with what the material is and how to properly recycle it to heighten chances of end of life recycling chances.

### HERE ARE THE 3 MAIN MATERIALS BEING CONSIDERED FOR THE PACKAGING REDESIGN:

#### RECYCLED PAPER TUBE

#### SILICONE TUBE

#### ALUMINUM TUBE

#### INITIAL ASSUMPTIONS

Recycled paper cardboard tube seems like a great option because there are already many products using a cylindrical tube much like what would be needed for the Airborne product. Paper products are easily recyclable and can be recycled many times over.

- Silicone also seems like a great option for its waterproofness, durability, innovative molding opportunities, and its “less bad” than plastic component.
- Silicone is a natural substance that derives primarily from sand and is fully recyclable.

- Aluminum is a great material option because it can be recycled an infinite number of times.
- Aluminum would ideally come from a pre-recycled aluminum supplier



# FEATURES COMPARISON

## Material Health & Sustainability of the End of Life Disposal



**Outweighs current packaging in lifecycle and material health** (i.e., PP, HDPE, 18-pt SBS paper, adhesives, and Silica gel absorbent):

**Works as single packager** (i.e., no secondary packaging needed) **from shelf life to consumer:**

**Functionality** – easy to travel with during consumer use and/or use as a reused travel container:

**Recyclable** - there are currently mainstream or specialty recycling systems in place for the material:

**Biodegradable** – will biodegradable in a landfill:

	Outweighs current packaging in lifecycle and material health (i.e., PP, HDPE, 18-pt SBS paper, adhesives, and Silica gel absorbent):	Works as single packager (i.e., no secondary packaging needed) from shelf life to consumer:	Functionality – easy to travel with during consumer use and/or use as a reused travel container:	Recyclable - there are currently mainstream or specialty recycling systems in place for the material:	Biodegradable – will biodegradable in a landfill:
<p><b>RECYCLED CARDBOARD CYLINDER</b></p> 	<p>Yes –material can be sourced from recycled sources and can then be recycled at end of consumer use.</p>	<p>Yes –cylinder is made from cardboard so the structure of the container is hard and self reinforcing.<sup>20</sup></p>	<p>Yes –cylinder is structurally sound and would endure the wear and tear of travel for an extended time, however, would eventually start to break down.</p>	<p>Yes – would be able to be recycled several times.<sup>21</sup></p>	<p>Yes – it would take approximately 2 months to decompose.<sup>22</sup></p>
<p><b>SILICONE CYLINDER</b></p> 	<p>Yes material is a safer product for human health (non-toxic) and has been a proven to outweigh plastic in material health.<sup>16</sup></p>	<p>Yes</p> <ul style="list-style-type: none"> <li>• Durable / non-fragile</li> <li>• lid could seal via perforated system during shelf life</li> <li>• would support and cushion tablets</li> </ul>	<p>Yes</p> <ul style="list-style-type: none"> <li>• durable / non-fragile</li> <li>• would support and cushion tablets</li> <li>• would be an excellent reuse travel container after product use</li> </ul>	<p>Yes, there are facilities that recycles silicone rubber, but they are not at all common.<sup>17</sup> Would need to find a facility that could recycle and depend on consumer to send to facility for proper end of life disposal</p>	<p>No – will not biodegradable in a landfill.<sup>17</sup></p>
<p><b>RECYCLED ALUMINUM CYLINDER</b></p> 	<p>Yes, for many reasons aluminum trials over plastic, for starters plastic can be recycled once or twice Aluminum infinitely.<sup>24</sup></p>	<p>Yes</p> <ul style="list-style-type: none"> <li>• durable / non-fragile</li> <li>• lightweight</li> </ul>	<p>Yes</p> <ul style="list-style-type: none"> <li>• durable / non-fragile</li> <li>• would be an excellent reuse travel container after product use</li> </ul>	<p>Yes – can be recycled and infinite amount of times. Aluminum cans are the most valuable recycled item in the United States and have the highest return rate from the time the can is dropped off at a recycle center or picked up by your garbage man.<sup>21</sup></p>	<p>Yes &amp; No –The aluminum that does make it to landfills can sit for up to 500 years before it is fully decomposed. This may seem like a significant amount of time, but it pales in comparison to the millions of years that it takes glass to decompose.<sup>24</sup></p>

# RECYCLED PAPER CARDBOARD

## Potential Vendor Partner

### PACKAGING PROVIDER

#### Chicago Paper Tube & Can Company

“From start to finish, we produce round recyclable packaging that is environmentally friendly.”

#### RESPONSIBLE SOURCING

Paperboard used to make the body of our containers meet SFI standards and can be made from 100% recycled fibers with up to 95% post-consumer content.

#### EFFECTIVE RECOVERY

Paperboard containers have a high level of biodegradability and compostability -- and can be easily recycled.

#### CLEAN PRODUCTION

No pollutants are added to the air, water or waste stream during in-house manufacturing processes. Paper waste produced during production gets recycled. All adhesives are water, not solvent, based. Both paperboard and adhesives are FDA compliant -- relevant sections of CFR 21.17.

Link to product page: <http://chicagopapertube.com/Sustainability/sustainablepackaging.html>



### WHY PAPER CARDBOARD

When compared to other items commonly found in landfills, cardboard biodegrades very quickly. Some items, such as aluminum cans, take several decades to decompose. Disposable diapers and sanitary napkins can take more than 500 years to decompose. Many items are considered non-biodegradable since it can take millions of years for decomposition to occur, if it happens at all.<sup>22</sup>



\*A thorough in person review would need to be completed before sourcing through this supplier to ensure they meet the criteria of the SPC guidelines and the project specific guidelines that have been laid out on page 27.

# SILICONE

## Potential Vendor Partner

### PACKAGING PROVIDER

#### JX Pack

##### 11ml Cylinder Concentrate Silicone Container Jar

1. Made from non-stick food-grade silicone.
2. Soft and Round snap on lid are not easy to fall off will protect your concentrate.
3. Accept Customized, various of colors for your choice and combine....

Link to product page:

<http://www.glass-cosmetic-bottles.com/marijuana-bottle/11ml-cylinder-concentrate-silicone-container.html>

Through initial website vetting there is a element of transparency on the website, they represent themselves to have the upmost quality control through their qualification certificate process, welcome face-to-face business cooperation, have a clean, orderly and safe production line.

\*A thorough in person review would need to be completed before sourcing through this supplier to ensure they meet the criteria of the SPC guidelines and the project specific guidelines that have been laid out on page 27.

### END OF LIFE SILICONE RECYCLER

#### ECO USA

Silicone materials that are collected are de-polymerized to recover silicone monomers such as D3 and D4. This material is used to make silicone oil that is widely used as lubricant for industrial machinery.

ECO U.S.A. is proud to recycle most forms of silicone such as:

- Silicone Rubber
- GUM
- HTV
- RTV
- LSR
- Sealant
- Silicone Fluid

Link to recycler about page: <http://www.siliconerecycling.com/about-us/>

### WHY SILICONE

It reduces dependency on plastic. Silicone is indisputably safer for human health than plastic. Silicone is much longer lasting than plastic and endures extreme fluctuations in temperatures. Silicone resists oxidative deterioration (normal aging) for decades on end.<sup>16</sup>



# ALUMINUM

## Potential Vendor Partner

### Elemental Container Aluminum Packaging Aluminum Screw Cap Cans

Custom aluminum bottles and other non-standard packages can be developed by Elemental Container for those applications whose requirements cannot be met by our current product lines. They can work with the design team to choose all aspects of your custom aluminum bottle, from basic bottle design to the closure system, from the type of liner to the inner coating.<sup>24</sup>

Link to product page:

[https://www.aluminumbottles.com/wp-content/uploads/2014/02/ElementalSpec\\_ScrewCapCans.pdf](https://www.aluminumbottles.com/wp-content/uploads/2014/02/ElementalSpec_ScrewCapCans.pdf)

### Elemental Container Inc. Subsidiary of Tournaire S.A.

Initial website vetting did not provide this statement:

Quality system: Both Tournaire's Divisions possess ISO 9001 certification. They use high-performance computer systems for rapid processing of client demands, non-conformity and possible improvements

Environment: Both Divisions of Tournaire are ISO 14001 certified. The Environmental Management system enables the company to make constant progress in limiting its impact on the environment.

Safety: The Grasse site is MASE certified: since 2006 for the Equipment Division and since 2010 for the Packaging Division. The Tournaire Group has opted for safety through the adoption of this stringent standard.

Health and working conditions: For the company as a whole, safety procedures are based on a preventive approach to industrial diseases and difficult working conditions.

Management of skills, jobs and knowledge: Tournaire runs an ambitious training plan for all its employees. It benefits from the expert knowledge of its staff whose average seniority is high: 15 years with the company as of 2013.

More info on Tournaire S.A. can be investigated here: <http://www.tournaire.fr/en/the-group/vision-values/>

\*A thorough in person review would need to be completed before sourcing through this supplier to ensure they meet the criteria of the SPC guidelines and the project specific guidelines that have been laid out on page 27.

## WHY ALUMINUM

**Metals are categorized into ferrous and non-ferrous metals. All metals have an unlimited lifespan. Aluminum is 100% recyclable and can be recycled over and over again. It is easy to transport aluminum cans because they are lightweight and can be packed tightly together. Even when aluminum is tossed in the trash instead of recycled, it is often picked up and turned into recycling centers by those who want to redeem the 5-cent per can reward.<sup>23</sup>**



# OUTER SHIPPER

## Potential Vendor Partner

### Salazar Packaging, Inc.

#### Globe Guard® shipping boxes

Made from recyclable, high recycled content materials. Our experience, results, and reputation in the packaging business have enabled us to secure the best sustainable packaging product lines, associate ourselves with the best and brightest minds, and deliver the quickest positive results.

You do not have to endure the expensive and time-consuming task of product research, evaluation, and testing because we have already done it for you

Link to product page: <https://salazarpackaging.com/sustainable-packaging/>





## OPPORTUNITIES

### Packaging Redesign

#### **PAPER CARDBOARD PROVIDES AN OPPORTUNITY TO**

create packaging that has the shortest decomposition period if it were to be disposed of in a landfill instead of recycled when compared to aluminum and silicone.

#### **SILICONE PROVIDES AN OPPORTUNITY TO**

ignite reuse of packaging materials in consumer habits. By using this material we would be providing a long term portable travel container (included for free) in the purchase of the airborne effervescent product. With this material option the labeling design and marketing of the product would need to establish that added benefit, that this package should be reused, or recycled responsibly through the provided recycler.

#### **ALUMINUM PROVIDES AN OPPORTUNITY TO**

reduce the amount of gray areas and unknowns in the packaging life cycle, it triumphs silicone and cardboard paper in its ease of recycling at end of life. The Aluminum Screw Cap Can provides an excellent travel container for the consumer to reuse during and after the Airborne product has been consumed.

# Repositioning Proposal

Airborne Effervescent Tablets were invented on the principals of innovation and dot-connection by a sole teacher who saw a recurring problem and found a solution. Parallel thinking should be implemented into the processes and provisions of the packaging for Airborne. Through this sustainable packaging study, different packaging avenues have been weighed and measure. In the following proposal, the best to date solution is recommended.

## PROPOSAL

After reviewing the three possible packaging materials included in this report, the conclusion is that both the aluminum and paper cylinder containers would provide a sustainable packaging solution that outweighs the current primary plastic and secondary paper packaging. Both of these recommended materials can be sourced responsibly, even from recycled materials, and then easily be recycled back into a regenerative material stream.

While the silicone option is more sustainable than the current plastic container it is outweighed by the aluminum and paper options due to their end of life recycling options. After a supply chain analysis, the silicone option was determined to be too durable in a sense. One of the main goals of this packaging redesign is to create a design that uses materials that will not outlive the lifespan of the product. Even though the aluminum and paper options will last the duration of the product use cycle, and then could possibly be continued to be reused as a travel container for whatever the user desires, either material can be recycled in most if not all regions in the United States once the user is finished with the packaging. Whereas silicone currently can only be recycled by a silicone specific recycler.

The aluminum and paper cylinder redesign options will be illustrated in the following pages to demonstrate the vision and fruition of these redesign avenues beginning with the overall consumer-facing redesign recommendations and then explaining the packaging design and next steps for each individual option.

## REVIEW OF GOALS FOR REDESIGN & FUNCTION

### 1 LESSEN OVERALL MATERIALS USED

Shorten cylinder to fit to the exact length of the 10 tablets. To reduce materials while upholding integrity of tablets structure. Completely eliminate secondary packaging. Through this analysis it has been deemed unnecessary. Redesign the lid system to use less plastic or alternative material by eliminating spring double helix.

### 2 ASSUME RESPONSIBILITY OF MATERIAL LIFECYCLE

Replace plastic with a sustainable material that still offers all the same benefits that apply to being a durable and travelable structure that the current plastic provides.

### 3 UTILIZE PACKAGING TO COMMUNICATE END OF LIFE RESPONSIBILITY OF RECYCLE TO THE CONSUMER

Focus on making label for packaging clearly labeled and explained so that consumers know how to dispose of packaging at end of life. Current plastic HDPE and PP are easily recyclable but not currently labeled anywhere on packaging.

### 4 REBRAND PRODUCT TO BE MODERN AND REPRESENT SUSTAINABLE PACKAGING INITIATIVES

Results from focus group study concluded that consumers want this products packaging to be simple, clean, clear hierarchy, straight forward –no hype, and nothing unnecessary.

### 5 ERGONOMIC & WATERPROOF PACKAGING

Redesign must apply an easy multi-use open and close lid system. Packaging needs to keep water and moisture out of inside of the container that stores the effervescent tablets

# GOALS FOR REDESIGN & FUNCTION EXPLAINED FOR IMPLEMENTATION

## Aluminum Cylinder

✓ **1 LESSEN OVERALL MATERIALS USED**  
**Elemental Container Aluminum Packaging** can be customized to any size and length this will ensure that exact measurements can be made to produce a aluminum cylinder that is only as big as it needs to be to contain the 10 tablets. This material is sturdy and can perform as the shelf life packaging.

✓ **2 ASSUME RESPONSIBILITY OF MATERIAL LIFECYCLE**  
Aluminum is 100% recyclable and can be recycled over and over again. It is easy to transport aluminum cans because they are lightweight and can be packed tightly together. This trait will lessen the carbon footprint of the packaging in transportation. Even when aluminum is tossed in the trash instead of recycled, it is often picked up and turned into recycling centers by those who want to redeem the 5-cent per can reward.<sup>23</sup> Labels of what the material is and how to recycle it would be necessary to complete this goal.

✓ **5 ERGONOMIC & WATERPROOF PACKAGING**  
The **Aluminum Screw Cap Cans** offer a travelable and rescrewable cap that will preform for the use cycle. Aluminum is also 100% waterproof.

ELIMINATE APPROXIMATELY 1 INCH OF DEAD SPACE IN CURRENT PKG SPECS



# REPOSITIONING PROPOSAL

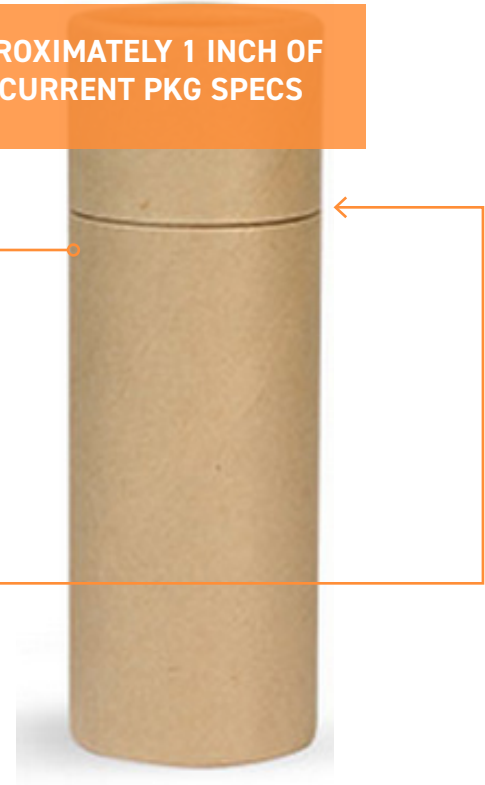
## Paper Cylinder Design

**✓ 1 LESSEN OVERALL MATERIALS USED**  
**Chicago Paper Tube & Can Company** can be customize to any size and length this will ensure that exact measurements can be made to produce a aluminum cylinder that is only as big as it needs to be to contain the 10 tablets. This material is sturdy and can perform as the shelf life packaging.

**✓ 2 ASSUME RESPONSIBILITY OF MATERIAL LIFECYCLE**  
The paperboard used to make all **Chicago Paper Tube & Can Company** containers either meets SFI standards or is up to 100% recycled -- with up to 95% post-consumer content.<sup>26</sup> Comprised of natural fibers, paperboard is recyclable, biodegradable and compostable. When compared to other items commonly found in landfills, cardboard biodegrades very quickly if this packaging were to end up in the landfill.<sup>22</sup>

**✓ 5 ERGONOMIC & WATERPROOF PACKAGING**  
The slip on / pull off lid offers a travelable and easy-to-use cap that will preform for the use cycle. While cardboard is not 100% waterproof this material is thick enough to withstand light humidity and small spills onto exterior of packaging without tampering tablets inside cylinder.



ELIMINATE APPROXIMATELY 1 INCH OF DEAD SPACE IN CURRENT PKG SPECS





# GOALS FOR REDESIGN & FUNCTION EXPLAINED FOR IMPLEMENTATION

## Paper vs Aluminum Cylinder - Head to Head Logic Assessment

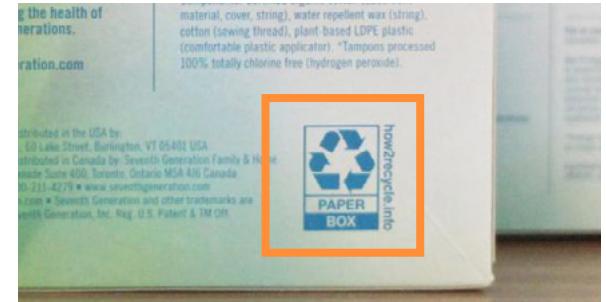
	<b>Weight</b> Which material is heavier?	<b>Distance</b> (from converter to fulfillment)	<b>Recyclability</b> Is this material recyclable?	<b>Nationally Recyclable</b> Is this package accepted by all collection recyclers nationally?	<b>Current Solar Income</b> Material can be produced
<b>RECYCLED CARDBOARD CYLINDER</b> 	Heavier than aluminum	Distance spans within the United States	Yes – would be able to be recycled several times. <sup>21</sup>	No – not all regions will recycle the paper tube	Yes – this material is harvested from trees. More can be grown.
<b>RECYCLED ALUMINUM CYLINDER</b> 	Lighter than paper	Distance spans within the United States	Yes – can be recycled and infinitely. Aluminum cans are the most valuable recycled item in the United States and have the highest return rate from the time the can is dropped off at a recycle center or picked up by your garbage man. <sup>21</sup>	Yes – all curbside and municipal waste streams accept aluminum	No – this is an ancient material. Only a finite allotment is on earth and can not be produced or man made

\*LCA to come at a later date  
– Approved by Wendy



### 3 UTILIZE PACKAGING TO COMMUNICATE END OF LIFE RESPONSIBILITY OF RECYCLE TO THE CONSUMER

Labels of what the packaging material is and how to recycle it would be necessary to complete this goal. Additionally, add the How2Recycle call to action icons to the packaging we could further educate or influence consumers to put their packaging in the proper waste stream.



Here are two examples of how Seventh Generation cleaning products executed packaging material and recycle information well and could be looked to for guidance for their solid approach to explaining mission, end of life disposal responsibilities, as well as responsible material sourcing.



### 4 REBRAND PRODUCT TO BE MODERN AND REPRESENT SUSTAINABLE PACKAGING INITIATIVES

The provided examples below are inspirations for possible rebrand designs that speak to the message of simple, clean, clear hierarchy, straight forward -no hype, and nothing unnecessary.



**KEEP THE ORANGE-IT COMMUNICATES WELL AS PROVED IN THE FOCUS GROUP**



An individual pointed out, "Orange = vitamin C to me." Another said, "I think the orange color helps reinforce the association with the citrus fruit and vitamin C." From this, a conclusion can be drawn that the orange color is generally a positive attractant.



Nuun Tablets (an indirect competitor) current position of modern, clean packaging & branding.

## NEXT STEPS

This packaging analysis and proposal is the first step toward creating sustainable packaging for Airborne effervescent tables. The next steps recommended are:

- Start conversations with supplied vendors to help guide the choice of whether to go aluminum or paper. Sustainable implementation and cost will be the biggest deciding factors.
- Rebrand and design the packaging label to elevate the perceived value of the product, explain clearly what the product should be used for, and display the sustainable packaging initiative and end of life disposal.
- Source packaging from the chosen vendor and put packaging into production.
- Run sustainable analysis across all sections of the business.

## REVIEW OF CRITERIA FOR DECISION MAKING AND VERIFYING SUSTAINABLE VENDOR PARTNERS:

### SUSTAINABLE PACKAGING DEFINITION<sup>15</sup>:

- Sustainable Packaging is beneficial, safe, and healthy for individuals and communities throughout its life cycle?
- Does it meet market criteria for both performance and cost? Is it sourced, manufactured, transported, and recycled using renewable energy?
- Does it optimize the use of renewable or recycled source materials? Is it manufactured using clean production technologies and best practices? Is made from materials that are healthy throughout the life cycle? Is physically designed to optimize materials and energy? Is effectively recovered and utilized in biological and/or industrial closed loop cycles?

The SPC guidelines outlined on their website:

- Sourced Responsibly
- Optimized for efficiency
- Effectively Recovered
- Non-Toxic/Low Impact

### DECISION-MAKING PROCESS:

- Design with one material for easy recycling & disposal processing.
- Utilize innovative systems to uphold the above statement such as sealing for shelf life with a perforated lid. Ensure the packaging contains the end of life education and directions on the packaging to help consumers dispose responsibly.
- Packaging will need to be labeled with what the material is and how to properly recycle it to heighten chances of end of life recycling chances.

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- <sup>24</sup> "Consumer Products ." Elemental Container, [www.aluminumbottles.com/consumer/](http://www.aluminumbottles.com/consumer/).
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# Appendix

# FOCUS GROUP AND ETHNOGRAPHIC STUDY QUESTIONS

## Questions Asked in Market Analysis



Are you familiar with this product?

- Yes  
 No

Do you take this product?

- Yes  
 No

If no, do you take an alternative product for Vitamin C or Immune System Support

Short answer text



What is your first impression of this product?

Long answer text

What do you think of the external branding? Illustration? Color?

Long answer text

Once you open the packaging this is what you see. Do you like this packaging? Why or why not?



Long answer text

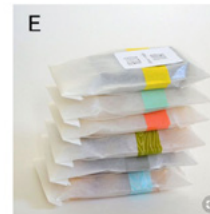
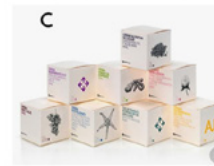
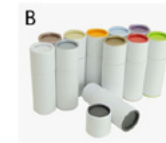
What packaging attracts you the most?



Why do you like that packaging the best?

Long answer text

Which package could you imagine would be best for Airborne Effervescent Tablets?



Why do you think that?

Long answer text

Sustainable Packaging

Description (optional)

Do you think this product is sustainable?

- Yes  
 No

What do you think this product's packaging affect on the environment is?

Short answer text

What about the packaging would you change to make it more sustainable?

Long answer text

### Questions Specific to Focus Group:

- What is your immediate reaction when you see the packaging and then hold it in your hand?

- What was your experience opening the packaging?

- Was it hard or confusing to figure out the process of opening it?

- After opening the packaging do you think this packaging is sustainable?

- Do you know how to recycle the packaging?

- After reading all of the label do you know how to recycle the packaging or properly dispose of it?

# FOCUS GROUP AND ETHNOGRAPHIC STUDY QUESTIONS

## Answers to Questions Asked in Market Analysis

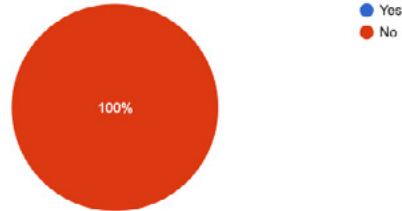
Are you familiar with this product?

7 responses



Do you take this product?

7 responses



What do you think of the external branding? Illustration? Color?

6 responses

The black in contrast with the orange is a bit jolting. Lots of different fonts going on, kind of hard to concentrate on just one thing.

I like the color, as well as some of the wording such as "effervescent tablets" and "in big letters "Helps Support Your IMMUNE SYSTEM"

it looks very "90's/early 2000's". Even the cartoon's haircut. It's a cartoon but the text does not seem to be made for kids so it is very much an adult product. The "Zesty Orange" image on the left looks a lot like the images Emergen-C uses, and the text "Vitamin-C" seems to closely resemble the Vitamin-C white text on the Emergen-C packaging. I don't find the black and orange to be appealing together.

I wouldn't choose the cartoon character, but surprisingly not put off by it. Orange = vitamin C to me. Like that it's simple 2 main colors- easier to read than a multicolor package.

I think the orange color helps reinforce the association with the citrus fruit and vitamin C

Childish, but makes me salivate for that Zest

Once you open the packaging this is what you see. Do you like this packaging? Why or why not?

6 responses

It seems like a waste of plastic. Although I can see why it's necessary to have a reusable package since you aren't taking all the tablets at once.

Looks like a drug instead of something that is beneficial to take.

I do, satisfying, and like how you can travel with it, don't love the looks on the package.

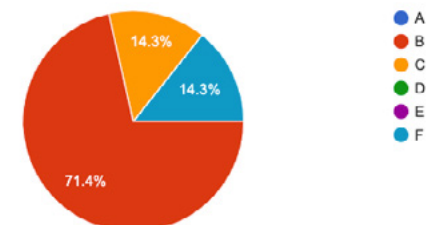
Aside from the graphics the material itself I find interesting as it could be reusable or repurposed. Not sure if it is refillable or if tablets are sold to refill it. If it is for one time use, I find it excessive. I don't think these tubes are recyclable so I don't really like that if they are used once. It looks like a good size for a purse or bag, and the cylindrical tube must feel comfortable in your hand when opening the tube.

Like that it's portable, assuming it's easy to open and fits in a purse/bag

The box seems a little redundant, and an extra step between purchase and consumption of the product

What packaging attracts you the most?

7 responses



If no, do you take an alternative product for Vitamin C or Immune System Support

7 responses

I've taken a Vitamin C supplement (just a stand alone vitamin) in the past. I now take a multivitamin that has Vit C.

No

only when sick, normally emergency

Emergen-C and Vitamin C chew tablets (for travel on the go) or Lavita (a type of high-powered juice concentration with immunity boost (from Germany so only use when in Germany)

EmergenC

General multivitamin (rarely, not regularly)

Yes, EmergenC

What is your first impression of this product?

7 responses

Has a childish feel

Ugly box and like whatever is in won't be healthy to take.

attracts my attention, don't like unnecessary box

very orange and the tablets in the glass remind me of a science experiment

It has lots of vitamin C, bright colors evoke that it will supposedly taste good- not earthy.

The brightness of the box is striking, like vitality

Healthy, Zesty

# FOCUS GROUP AND ETHNOGRAPHIC STUDY QUESTIONS

## Answers to Questions Asked in Market Analysis

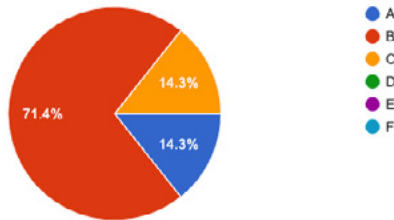
### Why do you like that packaging the best?

7 responses

- It's more simple and clean, and the font is more appealing to my eye. Not such a jolting color.
- It is clean and not so hype looking
- nothing unnecessary. Clean design
- B and F are the most minimalistic. I like the color contrast of the green and orange. It makes the orange really pop out somehow.
- I would say A or B-D because it's clean and simple, feels more premium/elevated product. However, I feel like I get more info easily from A w/o needing to put effort in to read.
- I like the minimalist graphics, versus the cartoons and other attention grabbers (eg. the explosion Emergen-G symbol seems a little over the top and tacky)
- Looks affordable

### Which package could you imagine would be best for Airborne Effervescent Tablets?

7 responses



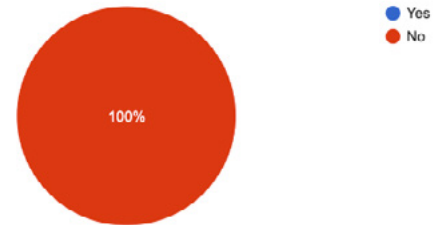
### Why do you think that?

7 responses

- I understand why they have gravitated to using the tube. The items don't need to be individually wrapped, but they do need to be protected from getting cracked/crushed due to their being more thin and wide. If the tablet itself were thicker and not as wide, some of the other options could work better.
- It was a tough choice between C & D. C won because of the colors and graphics were eye catching.
- Similar sleek package, and could travel well, but also might be less harmful than plastic
- It has the same tubular shape and it is still playful but softer looking
- As long as it could still be water tight/protect the product-it looks like it would protect the product from breaking better than any of the plastic packets and it would be ok if I dropped it- a fear of the glass one. If the product was meant for home use I'd go with A bit for travel, durability is priority.
- I think the clear tube plays up the "transparency" of the product, if you want to highlight herbs and natural ingredients. Some of the other paper tube and envelope options seem a little too crude for a commercial product. (what's the impression if you are buying medicine-type product out of a paper bag?)
- Most efficient

### Do you think this product is sustainable?

7 responses



### What do you think this product's packaging affect on the environment is?

7 responses

- A lot of unnecessary waste of materials. The outer paper box is completely unnecessary, and the plastic tube itself uses plastic unnecessarily.
- Horrible. Just think how many of those plastic containers are in the land fill
- unnecessary plastic waste, they are nice to have the dissolvable flavored tablet, but probably more effective to just have more classic vitamin pills
- I think the packaging is probably made out of a PP or type of polymer that is not recyclable and therefore goes into the landfill. It is a really thick piece of plastic.
- Landfill and ocean plastic
- It seems like a lot of excess material, just for holding some tablets.
- Not Good? Glossy plastic, with unnecessary flaps. Little

### What about the packaging would you change to make it more sustainable?

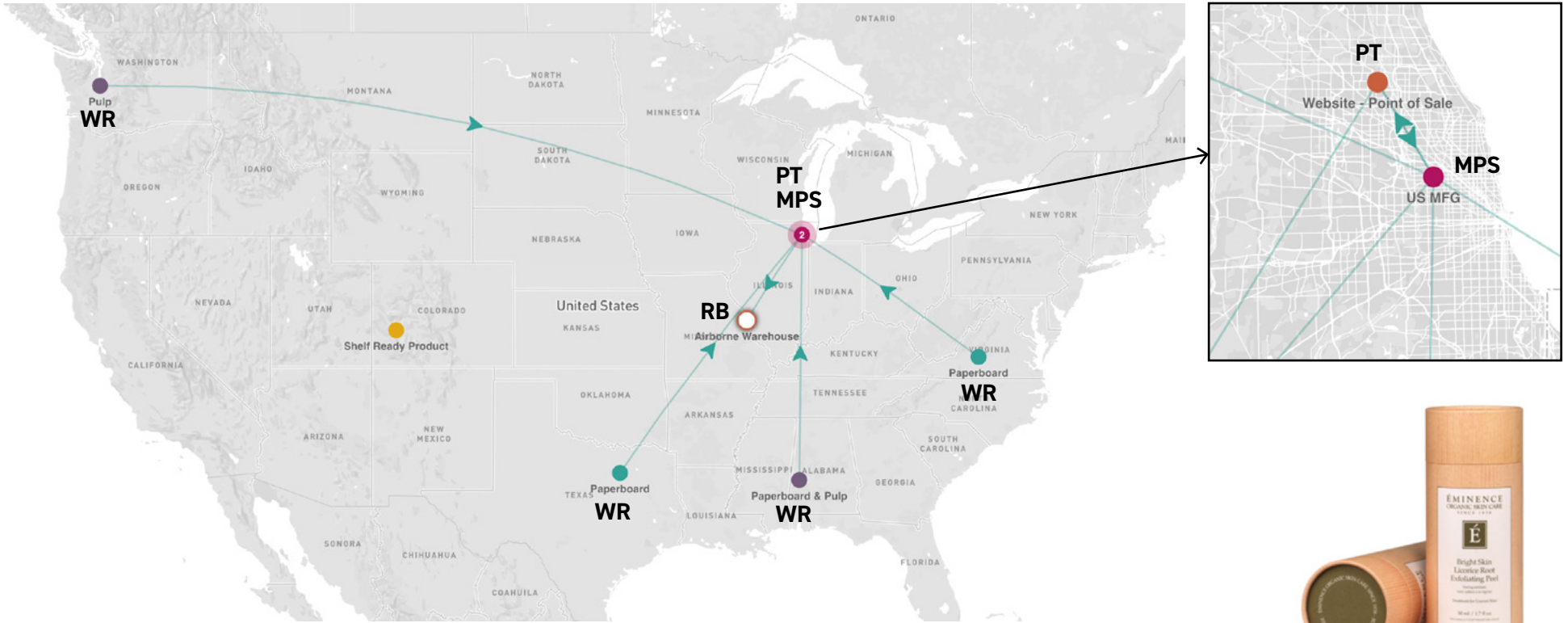
7 responses

- Less material use overall, a more sustainable material than plastic used, and more simple design with less ink wasted.
- Biodegradable materials that breakdown fast. I don't think recyclable plastic is the answer. Out of the millions of tons of plastic produced each year, only about 5 percent of it is reclaimed. A large amount of plastic, about eight million metric tons every year, ends up in the ocean, polluting the water and endangering marine life.
- get rid of the box, see if you could make it out of a recyclable material.
- Definitely think about the shell tube and if it is really needed to be that thick. Is it overprotecting and do the tabs really need that type of protection? Could another material work instead or a recyclable plastic? It probably needs to be waterproof to protect the Airborne tabs from dissolving
- Biodegradable materials?? Non-gmo ingredients in product
- Get rid of the extra box, maybe just safety seal the tube. What other options are seen with other effervescent tablets? (alka seltzer, denture cleaners, other drink mixes?)
- Less packaging per ounce of usable product



# SUPPLY CHAIN MAP

## Paper Tube Packaging



- + Supplier **WestRock** [westrock.com](http://westrock.com)
- + Processor **WestRock** [westrock.com](http://westrock.com)
- + Manufacturer **Chicago Paper Tube (Multi Packaging Solutions)** [chicagopapertube.com](http://chicagopapertube.com)
- + Distributor **Reckitt Benckiser** [rb.com](http://rb.com)
- + Retailer **Paper Tube Co** [papertube.co](http://papertube.co)

# Thank You

Proposal for sustainable packaging for  
Airborne Immune Support  
Effervescent Tablets

Olivia Pedersen  
Packaging Sustainability  
MCAD | Spring 2019