

REPORT OF CALL

NAME Sealright, Inc.

ADDRESS Fulton, New York

INTERVIEWED Mr. Ray H. Horning

BY D. C. Kay

DATE OF CALL 7-25-56

CC Messrs: J. B. Knowles

J. D. Madden

H. L. Burpo

T. R. Orme

A. J. Dragonette

G. G. Himmler

H. A. Feddersen

R. C. Boyd

T. S. Nale

H. F. Robertson

J. W. McLaughlin/W. I. Lowe

File Right Vinyl sheeting
VCAB-3400 Every 125
VYNS - 91:775
Mag. Grey Grits 3.000
Zinc Sulfate 0.200
Titanium Diox. (B-506) 5.000
Plastic

Cap weight
0.5 gram

Fl 10 + c yellow 5 0.025
100.00

500 PPM
had-

Gary Himmler and I called on Sealright with Howard Burpo to get some background information on the milk bottle cap application. The proposed cap is to come into direct contact with milk.

Advantages and Disadvantages of Plastic Cap

Mr. Horning quoted us some advantages and disadvantages of the proposed plastic cap from a market research report prepared by Sealright.

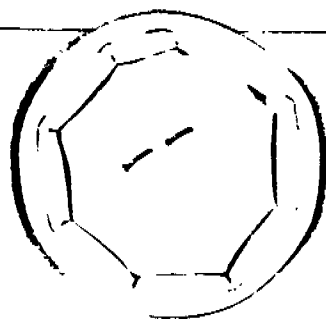
Disadvantages:

- (1) Cuts more readily than conventional caps when struck with a hard object such as the bottom of another milk bottle.
- (2) Leaks a bit more readily than the paper lined aluminum cap when the bottle is allowed to sit in the sun. Mr. Horning emphasized that it leaked more readily than the aluminum cap only when the aluminum cap was properly applied, which he said is seldom.

Advantages:

- (1) Better appearance. Plastic caps would be available in different base colors and can be readily printed with attractive designs.
- (2) Plastic caps are easily removed without hurting the fingers,
- (3) They reseal tighter than the metal caps.
- (4) They conform better to the shape of the bottle to give a neater appearance.
- (5) They can be applied initially only by machine.

UCC
063656



UCC
063657

Comments on Samples Sent to Sealright

The creamier of the two ivories will be satisfactory for Sealright and, of course, will be an easier color for us to control. Color designation is Ivory 125. Sometime in the future the sheeting will be wanted in other base colors, but for the present, the ivory will serve as a start.

Mr. Horning said he felt that the VBAB-3400 sample was more rigid than the VBAB-3420 sample. He attempted to substantiate this by snapping the edge of the cap with his finger and noticing the difference in metallic ring between the two samples. I could notice no difference, but Mr. Burpo and Mr. Himmler felt that they could detect the difference. In other sample capping operations Mr. Horning said that the 3420 formulation tended to buckle at the flange more than did the 3400.

The creamier of the two ivory samples also had the glossier surface. This glossier surface is preferable to a matte surface.

Sealright's Requirements

Sealright would like the sheet on an 8" ID paper core, about 14" wide, and with a roll diameter of up to 36" maximum. Very tentatively, we discussed a maximum of one flagged splice per roll and width tolerance of $-0 + 1/16"$. Mr. Horning brought up these latter two requirements merely to have something on paper; they are not hard and fast.

Sealright can accept shipments on skids if it would save any money by reducing packaging costs or if it would be more convenient for us. The 36" max. diameter is a similar situation; it is more convenient for them to have a larger roll and they thought it might be more economical or convenient for us to produce.

Production at Sealright is expected by October 1, possibly September 15. For this schedule, they would need material in their plant around September 1. A production figure of 1,500,000 caps a day, which Mr. Horning said was conservative, would involve 20,000 to 30,000 lbs. a month of sheeting.

Sealright proposed to use the scrap produced in forming the caps back into regular operations by dissolving the scrap in acetone, to make a vinyl coating resin. They already use large quantities of our vinyl resin for this purpose. At Mr. Horning's request, Mr. Himmler has prepared a gallon solution of the sheet dissolved in acetone.

Sealright would like to have the thickness specs read .0105, $-.0005$, $+.0015$. The .0105 is the thickness they actually desire, they feel they cannot go below .0100, and the $+.0015$ is merely their concession to bring the average to $\pm 10\%$. Cost-wise, on paper, it definitely does make a difference to them whether the aim thickness is .0105 or .011.

Toxicity and Adulteration Clearance

Sealright have already submitted samples of the vinyl sheet to Dr. Reed of the Syracuse University who does consulting work in the dairy field. Dr. Reed,

Mr. G. G. Himmeler
Bakelite Company
Bound Brook, New Jersey

June 15, 1956

Mr. H. L. Burpo
Mr. A. J. Dragonette
Mr. H. A. Pedderson
Mr. W. F. Hemperly
Mr. D. C. Kay
Mr. J. B. Knowles
Mr. H. F. Robertson

VCAB-3400 Ivory 125
Sealright & Company, Inc.

Dear Mr. Himmeler:

Thank you for sending me your calculations relative to the quantities of lead and arsenic which would be present in a square foot of an 11-mil sheet of this formulation when 5 per cent of it is the titanium dioxide colorant suggested.

Without extraction data it is necessary to assume that all the lead and arsenic would be absorbed into the food wrapped or packaged in the material. If $1/4$ pound of food were packaged in one square foot of this sheeting, then we estimate that 0.3 part per million of lead would be in the food. The arsenic would amount to 0.03 part per million on a weight basis. Based upon present attitudes of the Food and Drug Administration as to the quantities of lead and arsenic which would be considered to be negligible, a figure of 0.02 part per million is used. Therefore, it seems that this acceptable amount would be exceeded.

This is quite frustrating at times. If extraction studies were carried out on 11-mil sheets, I understand that the quantities of lead and arsenic would be so small that analytical methods would prove inadequate to demonstrate the same. I also understand that the lead and arsenic in the titanium dioxide colorant would be so fixed in the sheeting that they would not be expected to migrate.

Very truly yours,

MEDICAL DIRECTOR

Thomas W. Hale, M. D.

jl

UCC
063659

In 1 ft^2 of 11-mil sheet there could be
as much as .000036 gms of lead and
.0000036 gms. of arsenic.

If 1 ft^2 of the sheet were used to
wrap $\frac{1}{4}$ lb (approx 115 gms) of food, and
if the food absorbed all of the lead
and arsenic there would be present
in the food about $\frac{.000036}{115} = .0000031$ gms of lead

per gram of food. This is equal to 0.03 parts
per million of lead on a weight basis.

Arsenic would amount to 0.03 parts
per million on a weight basis.

FOR INTERNAL CORRESPONDENCE

BAKELITE COMPANY

UCC

RIVER ROAD, BOUND BROOK, NEW JERSEY

To (Name)
Company
LocationDr. Thomas W. Nale - 300 Madison
Bakelite Company
New York, New York

Date

June 11, 1956

Originating Dept.

Development

Answering letter date

Copy to

Mr. H. L. Burpo - Clifton
Mr. A. J. Dragonette - 9 E. 41st.
Mr. H. A. Fedderson - BB
Mr. W. F. Hemperly - BB
Mr. D. C. Kay - 9 E. 41st. File
Mr. J. B. Knowles - 292 Madison
Mr. H. F. Robertson - 9 E. 41st.

Subject

VCAB-3400 Ivory 125
Sealright & Company, Inc.

4S + 2.0444

In reply to your June 4, 1956 letter, we have determined the maximum amount of lead and arsenic that the titanium dioxide colorant could contribute to the VCAB-3400 Ivory 125 product.

VCAB-3400 Ivory 125 (specific gravity = 1.393) contains % of titanium dioxide (B-556 Plastel) which as impurities can contain a maximum of 20 parts per million of lead and 2 parts per million of arsenic. Thus the VCAB-3400 Ivory 125 sheet can contain up to 1 part per million of lead and 0.1 part per million of arsenic due to impurities in the colorant. At the present time an 11-mil sheet is involved and on a square foot basis could contain up to the following amounts of lead and arsenic.

	<u>Lead</u>	<u>Arsenic</u>
lbs./ft. ²	7.95×10^{-8} (0.00000008)	7.95×10^{-9}
gms./ft. ²	3.61×10^{-5} (0.000036)	3.61×10^{-6}
grains/ft. ²	5.56×10^{-4} (0.00056)	5.56×10^{-5}

As you suggest, the amounts involved are extremely low.

There appears to be nothing further we need do on this matter until Mr. Kay advises the extent of the application.


G. G. Himmel

GGH:df

RECEIVED

JUN 13 1956

INDUSTRIAL MEDICAL &
TOXICOLOGY DEPARTMENTUCC
063661

Mr. G. G. Himmeler
Bakelite Company
Bound Brook, New Jersey

June 4, 1956

Mr. J. D. Benedite
Mr. H. L. Burpe
Mr. A. J. Dragonette
Mr. H. A. Fadderson
Mr. W. F. Hemperly
Mr. D. C. Kay
Mr. J. B. Knowles
Mr. H. F. Robertson

VCAE-3400
Sealright & Company, Inc.

Dear Mr. Himmeler:

In comment on your letter of May twenty-ninth to Mr. Kay, in which you present a formulation for a rigid vinyl sheeting containing colorants such as titanium dioxide (B-556 Plastel) as 5% and P.D.&C. Yellow #5 as 0.025%, the P.D.&C. Yellow would be considered acceptable. The titanium dioxide (B-556 Plastel) is guaranteed by H. Kohnstamm and Company to have the same specifications for lead and arsenic required of certified D & C colors, namely, 20 parts per million of lead and 2 parts per million of arsenic. This is the drug and cosmetic grade.

It would be helpful if you could calculate how much lead and arsenic might be present in one square foot of rigid vinyl sheeting in which 5% of the composition would be this titanium dioxide. Expressed in parts per million, it no doubt can be demonstrated that the amount is so small that it can be ignored.

If this is true, we would not expect that objection would be voiced to this suggested formulation.

Very truly yours,

MEDICAL DIRECTOR

Thomas W. Hale, M. D.

UCC
063662

FOR INTERNAL CORRESPONDENCE BAKELITE COMPANY

UCC

RIVER ROAD, BOUND BROOK, NEW JERSEY

To (Name) **Mr. D.C. Kay (9 E. 41st)**
Company **Bakelite Company**
Location **New York, N.Y.**

Date **May 29, 1956**

Originating Dept. **817-93**

Answering letter date

Subject **VCAB-3400 Sealright & Company**

Copy to **Mr. J.D. Benedito - 1103**
Mr. H.L. Burpo - Clifton
Mr. A.J. Dragonette - 9 E. 41st
Mr. H.A. Feddersen - BB
Mr. W.F. Hamperly - BB
Mr. J.B. Knowles - 292 Madison
Dr. T.W. Hale - 300 Madison
Mr. H.F. Robertson - 9 E. 41st

File: **2.0444 + 4.5**

On May 25, 1956 we sent to Sealright & Company, Inc., First and Fay Streets, Fulton, N.Y. the following sizes in our V CAB-3400 Ivory 125 packaging grade rigid sheeting against N/C Order S-8724.

5 Lbs.	0.005 x 6
8 Lbs.	0.0075 x 6
10 Lbs.	0.009 x 6

A white color was not submitted because we could not expect to maintain satisfactory color uniformity. The Ivory 125 color is a color we believe we can control with this formulation.

We are not completely advised as to just where this material is being considered for use. Since it may be used in contact with milk we are supplying below the full formulation used.

V CAB-3400 Ivory 125

VYNS	91.775
Magnesium epoxy stearate	3.000
Zinc stearate	0.200
Titanium Dioxide (B-536 Plastel)	5.00
White supplied by H. Kohnstamm	
F.D. & C. Yellow #5	0.025
	100.000

Should it be found that the properties of V CAB-3400 Ivory 125 are satisfactory for the application, it would be appreciated if you would consult with Dr. Hale whether or not this product would receive Food and Drug Administration acceptance in this use.

GGH:vk

RECEIVED

MAY 31 1956

G.G. Hamler
**INDUSTRIAL MEDICAL &
TOXICOLOGY DEPARTMENT**
UCC

063663