P.T. UNION CARBIDE INDONESIA
P.O. BOX 2677 — JAKARTA INDONESIA

CABLES : UNICARBIDE

PHONE : 57187
: 57188
: 57189
TELEX : 46256

7 SEP 1976

PLAINTIFF'S EXHIBIT
UC-2842

2 September 1976

Mr. E.J. Stubenrauch
Metals and Ores Pte. Ltd.
P.O. Box 154
Jurong Town Post Office
Singapore

Dear Ed :

Enclosed find technical information on how to make a floor polish latex. This is propietary information and should be kept confidential.

Also attached is the process details for powerfeed, especially as it relates to UCAR 4510.

Enclosed is also the Revacryl A360 process. Again this is information that you should keep to yourself.

Best regards,

Very truly yours,

M.L. Farmer

MLF:hs
Encl.

A22854

[redacted]

UCC 025328

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
270 PARK AVENUE, NEW YORK, N. Y. 10017 · CABLE ADDRESS: UNICARB NEW YORK

INTERNATIONAL

UNION CARBIDE THAILAND LTD.
FILE | X REF
RECD. 16 NOV 1970
ADM. FIN. DEPT.
BC
KH
EJS
PAK
EFC
SU
ND
AJ
SV
SS
SN
CV
LATEX LANT
WB
CK
LV
SC

November 9, 1970

Mr. R. Cabrera
Union Carbide Thailand Ltd.
300 Silom Road
Bangkok Bank Building
Bangkok, THAILAND

SUBJECT: 1971 Latex Product Mix

Dear Ray:

Attached please find J. W. Hagen's recent subject letter which outlines our plans for the discontinuance of 16 products.

This data will be incorporated into the next issue of the Quarterly Availability Bulletin. However, we thought it advisable to inform you of these plans now.

If there are any questions, please let me know.

Very truly yours,

V. Toma
Coatings Intermediates Division

VT:jr

Att.

cc: J. W. Hagen
G. L. Mann
J. Nesmith

A22855

[redacted]



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UNION CARBIDE CORPORATION
Coatings Intermediates Division

270 Park Avenue, New York, N.Y.

TO: Mr. R. G. Curtis
Mr. J. C. Flanders
Dr. D. H. Klipstein
Mr. J. Sidlovsky
Mr. J. H. Stevens

CC: Mr. K. L. Brown
Mr. J. F. Burgess
Mr. J. A. Cox
Mr. R. A. Daily
Mr. G. K. Deno
Mr. J. M. McKee
Mr. W. W. McLean
Dr. W. P. Miller
Mr. J. Nesmith
Dr. J. B. Toogood
Dr. R. H. Harding

DATE: October 29, 1970

SUBJECT: 1971 Latex Product Mix

A meeting was held on October 8 with Messrs. Curtis, Flanders, Sidlovsky, Klipstein, and Hagan to finalize the plans agreed to early in September to reduce the number of latexes produced at the South Charleston plant in 1971. This is being done to coincide with a planned reduction in total period dollar expenditures at the South Charleston latex unit next year. To accomplish this planned reduction in period costs it will be necessary to discontinue the manufacture of some 16 products. At the same time several other products were considered candidates for a price increase because of present high manufacturing and distribution costs.

Each of the products in question was discussed and the following course of action agreed upon:

I. Products which will be discontinued by January 1, 1971.

| PRODUCT | SALES THROUGH JULY, 1970 (M-LBS. CONT.) |
|---|---|
| UCAR Latex 805 | 19 |
| UCAR Latex 806 | 16 |
| UCAR Latex 874-N | 6 |
| UCAR Latex 896 | 2 |
| UCAR Finish 340 | * |

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| PRODUCT | SALES THROUGH JULY, 1970 (M-LBS. CONT) |
|---|---|
| LCX-5100 | (-5) |
| CTX-2130 | * |
| PM-5100 | 29 |
| PM-5301 | 32 |
| Exp. Resin 3292 | * |
| PCX-10 | 10 |

II. Products which will be discontinued by June 30, 1971.

| PRODUCT | SALES THROUGH JULY, 1970 (M-LBS. CONT.) |
|---|---|
| UCAR Latex 137 | 153 (investigating possibility of toll conversion) |
| UCAR Latex 680 | 278 (investigating possibility of toll conversion) |
| UCAR Latex 862 | 52 |
| UCAR Latex 865 | 101 |
| UCAR Latex 893 | 46 |
| PM-5190 | 160 |

III. Products which are candidates for price increase due to high manufacturing and distribution cost.

| PRODUCT | SALES THROUGH JULY, 1970 (M-LBS. CONT.) |
|---|---|
| UCAR 40 | 1098 |
| UCAR 46 | 308 |

IV. Products which were considered for deletion, but will be reviewed by April 1, 1971.

| PRODUCT |
|---|
| EL-3084 |

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Plans to discontinue these products in items I and II will commence immediately unless there are compelling reasons why this course of action is undesirable.

J. W. Hagan

JWH/pc

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Jennat Latexes

| | | |
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UNION CARBIDE INTERNAL CORRESPONDENCE

15 MAR 1976 31-C

CHEMICALS AND PLASTICS • P. O. BOX 8361, SOUTH CHARLESTON, WEST VIRGINIA 25303

To (Name) Mr. E. J. Stubenrauch
Division Metals and Ores Pte Ltd.
Location Singapore

Date March 5, 1976

Originating Dept. Water-Borne Coatings Materials - IPF

Copy to Mr. H. M. Bartlett
Mr. F. G. Bertics
Mr. R. J. Hanna
Mr. H. Mayfield

Subject

Dear Ed,

The latest formulations for UCAR 874 and UCAR 153, which you requested in your letter of January 29, are attached. If you use the same raw material code we use, the instructions should be fairly easy to follow. Only two words of caution seem justified.

First, the N-methylol acrylamide (M-16) is a very reactive monomer. It shows an unhappy tendency to go bad on storage and to polymerize in lines and pumps. Whenever it is transferred by pump, the system should be flushed immediately with water.

Second, you should be aware of the uncertain status of M-3 Ink Resin. The EAA-9500 resin, on which it is based, is no longer made. We are living on an inventory here in South Charleston. A replacement is being sought, but it may be six months before we have an answer.

As always, good luck on this and all your other projects.

Regards,

Ralph

Ralph Stickle

RS/lw

Attachments

cc: M/s. S. Chu | K.K. Tan
Dr. M. L. Farmer

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# JENNAT CORPORATION

A SUBSIDIARY OF UNION CARBIDE CORPORATION

*Quality Emulsion Polymers*

12840 SOUTH CRAWFORD AVENUE ALSIP, ILLINOIS 60658

Chicago 928-4100 Suburban 389-7000


## UCAR 874-HS

## SUMMARY PROCEDURE

1. Charge monomers to mix tank in order shown and circulate while charging.
2. Set up for addition of monomer through the steam inlet, below the liquid surface.
3. Close reactor drain and charge hot W-21. Turn agitator on at 50 rpm.
4. Charge B-71, dry to reactor.
5. Adjust reactor temperature to 79°C. Allow 5 to 10 minutes to line out at 79°C.
6. Charge C-57, dry to reactor.
7. Two minutes after C-57 is in, start monomer feed at 4.0 gallons per minute, for 30 minutes.
8. As reactor temperature increases, crack jacket cooling valve to maintain 80-81°C. This usually requires a 40 to 44°C jacket cooling water return.
9. Increase the feed rate to 7.0 to 7.5 gpm (about 60% on flow meter) while controlling temperature at 80-81°C.
10. Increase the agitation as follows:

    1000 gallons feed, up to 55 rpm

    1500 gallons feed, up to 60 rpm
11. After 900 gal. of feed start delayed catalyst feed.
12. During the latter stages of the run, slow the feed rate as necessary to maintain 80-81°C reaction temperature. Jacket cooling return is usually 20 to 25°C at this point.
13. When monomer is all in, rinse the mix tank with 15 gallons M-11 and pump to the reactor, unless another "800" series latex follows.
14. Hold at 80-85°C for thirty minutes, post heat.
15. Transfer to cooling tank and cool to 60°C, use Wilden Pump with portable straine
16. Prepare C-56 - W-21 emulsion by mixing in a 10 gallon container. Slowly add the mixture to the cooling tank by dipping from the container with a 1 gallon jug.
17. Prepare R-231 solution in M-8 tank, and feed to the cooling tank over a 30 minute period. Note cooling tank temperature before and after R-231 addition Flush M-8 tank with 3 gallons W-21.

    If U-874HS is to be made into UCAR-153, OMIT U-874HS step 18 and refer to UCAR-153 Summary Procedure.
18. Cool batch to 25°C. Add 40 lbs. Rapol Defoamer, sample to lab.

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Batch No: _____

Material: UCAR LATEX 153

Tank: _____

Operator: _____

Date: _____

| CODE | POUNDS | GALLONS | CHECKED BY |
|---|---|---|---|
| UCAR Latex 874-HS | 22,400 | 2,500 | |
| W-21 Adjustment | | | |
| Bakelite Ink Resin "M-3" | 4 Drums Code T-104 | | |
| D-149 Rapol (Premix) | 40 | | |
| W-21 (Premix) | | 5 | |

Summary Procedure

1. Prepare UCAR Latex 874-HS. (Refer to UCAR 374-HS Summary Procedure.)
2. Procede to step 16, transfer to cooling tank @ 80-85°C. Turn cooling off.
3. Procede through steps 17 and 18, (addition of post catalyst system.) @ 70-75°C.
4. Hold at approximately 70°C for 15 minutes, sample to Lab.
   Add 250 lbs. W-31 to cooling tank.
5. Cool to 55 to 60°C. Turn cooling off.
6. Add 40 pounds Rapol (D-149) in 5 gallons W-21, slowly. This must be added before the M-3 Ink Resin.
7. Add W-21 adjustment as per lab instructions.
8. Set agitator on "High Speed".
9. Pump in the "Bakelite M-3" resin slowly. This must be added over a one hour period. Fast addition produces seeds too high to filter out.
10. Mix one hour at 53 to 55°C. Use 4 drums M-3 Ink Resin - code T-104
11. Cool to 35°C and add 5.0 lbs. F-225 in 3 gal. water.
12. Sample to Lab.

P-11 7/23/75

A22865



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W21
HOT 927
COLD 53
STEAM 30
TOTAL 1010

UCAR 874-HS

Batch No. ____
Date: ____
Reactor ____

| | CODE | POUNDS | GALLONS | METER READING | CHECKED BY |
|---|---|---|---|---|---|
| CIRCULATE WHILE CHARGING | M-11 Mix Tank | | 1300 | 1300 | |
| | M-13 " " | 256 | | | |
| | M-16 " " | 175 | | | |
| | W-21 " " | 80 | | | |
| | L-77 " " (Silicone) | | 1 Full Gal. | | |
| | M-6 " " | | 75 | | |
| | M-11 " " | | 232 | 1607 | |
| REACTOR | W-21 Hot to Reactor | | 867 | 867 | |
| | B-71 Dry | 17 | | | |
| | W-21 30 Gal-Steam Cond. | | 30 | | |
| | C-57 | 67 | | | |
| | W-21 Cold Cat TK | | 30 | 30 | |
| | C-57 | 5 | | | |
| | W-21 Cold Mix TK. Flush | | 15 | 45 | |
| | C-56 | 35 | | | |
| | W-21 Cold | | 5 | 50 | |
| | R-231 | 23 | | | |
| | W-21 Hot | | 20 | 887 | |
| | Post Add F-225 | 5 | | | |
| | W-21 Cold | | 3 | 53 | A22866 |
| | W-21 Hot Rx Flush | | 20 | 907 | |

Note: - OK to substitute M-7 for M-13 if M-13 not available - use 219 lbs.

11-7-75



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