JENNAT CORPORATION

A SUBSIDIARY OF UNION CARBIDE CORPORATION

Quality Emulsion Polymers

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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.

A22864

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

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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