

Lab Batch 10

LAB JOURNAL - Version 2.0

Experiment No.	Lab Batch 10 Date 19.05.23
Aim	To develop product equivalent to reference product

Equipment Details	Laboratory glass reactor set up with agitator / nitrogen system etc.
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Reaction Scheme	
Safety Precautions	

Input Raw Material										
Sr. No.	Raw Material	Sources	Cas No.	RM No	Quantity (gms)	Purity	Rm %	Molecular Wt.	No. of Moles	Molar Ratio
1	Vicasurf -1010	FOIL			230	100				
2	Polyphosphoric acid	FOIL			15.2	100				
3	Epomine 018-				105	100				
4	2- ethyl hexyl acrylate	Loba			245	100				
Total										

Experimental Procedure					
Sr.No	Time(hrs)	Temperature - (°C)	Pressure/Vacuum - N2(kg/cm2)	Process Steps	Remarks
1	1-5	60-75	Yes	Step- A To main reactor added Vicasurf 1010 under stirring and nitrogen atmosphere temp. 40 deg increased temp slowly with addition of P- pentaoxide . Upon feed completion temp raised to 75 deg C and digested for 2-3 hrs. Appearance was yellowish with slight gripped in viscosity. Upon digestion cooled to RT.	
2	1-8	55-80	Yes	Step-B To main reactor added Epomine 018- reaction mass under stirring and nitrogen atmosphere temp. 55-65 deg Started slowly addition of 2- ethyl hexyl acrylate slowly . initially found clear reaction mass , later on changed to yellowish in nature. Built viscosity at end of reaction.	
3	1-5	60-65	Yes	Step-C To main reactor added Step- B reaction mass (20%) - reaction mass under stirring and nitrogen atmosphere temp. 55 deg Started slowly addition of Step- A (80%)reaction mass in it. initially found clear reaction mass , later on changed to slight turbid yellowish in nature with viscosity. Mixed for 3 hrs then cooled to RT.	
Optimized Reaction Conditions					
Temperature (c)			N2/Vac		Time

Critical Process Parameter				
Sr No.	Source	Time	Temp	Observation Details

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Critical Parameters			
S.no	Parameter	Reference	Value
1	aminev	30.1	
2	av	43.2	

SPDu	
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Conclusion
Product was Yellowish flow able liquid

