

LAB JOURNAL - Version 2.0

Experiment No.	Lab Batch 05 Date 27.12.22
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			300	100				
2	Phosphorous pentaoxide	FOIL			10.5	100				
3	Lupasol G-20 WF	FOIL			7.5	100				
Total										

Experimental Procedure					
Sr.No	Time(hrs)	Temperature - (°C)	Pressure/Vacuum - N2(kg/cm2)	Process Steps	Remarks
1	1-5	40-75	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.AV-38	
2	1-3	40-70	Yes	Step-B To main reactor added Step- A reaction mass under stirring and nitrogen atmosphere temp. 40 deg Started slowly addition of Lupasol G-20 WF slowly , slowly gripped in viscosity found. upon feed completion stirred well for 1-2 hrs then cooled to RT.AV-38 Amine Value- 19	Yellowish flow able liquid
Optimized Reaction Conditions					
Temperature (c)			N2/Vac		Time

Critical Process Parameter				
Sr No.	Source	Time	Temp	Observation Details

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/ Tested on different pigment found equivalent results to reference product/ Only re solubility parameters was inferior etc.

