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AN OVERVIEW OF DIFFERENT POUR POINT DEPPRESANT SYNTHESIZED AND THEIR BEHAVIOUR ON DIFFERENT CRUDE OILS

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Abstract: Wax deposition in crude oil during transportation and production causes serious issues such as flow reduction and blockage in pipeline adversely impact pipeline performance. Different mechanical and chemical methods have been used to overcome this issue. Out of all these methods, pour point depressant has been found to be an effective remedy to wax deposition. Pour Point Depressant has been synthesized through different methods and used widely for minimizing the deposition of wax in the crude oils lines. Besides these, the PPD are also used to reduce the freezing point of crude oil thereby reducing the flow resistance during transportation of oil. It is used as the flow improver which increases the liquidity of the crude oil. The various factors affecting the performance of the crude oil in presence of synthesized PPDs have been studied among which many of the PPD synthesized are Oleic acid based or maleic anhydride based polymeric additives through esterification and Friedel Craft Alkylation. Different types of PPDs having high molecular weight copolymers show better results than other low molecular weight polymers.PPD synthesized were examined on the the crude oils of the Limbodra, Nada, Langhnaj, Akholjuni of Gujarat region and the results were investigated throught SARA Analysis, Fourier Transform Infrared Spectroscopy(FTIR), Gel Permeation Chromatography(GPC).

Index Terms – Pour Point depressant, crude oil, flow improvers.