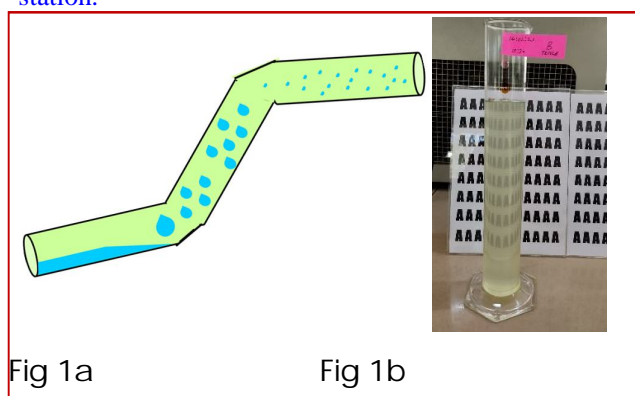




HP DEHAZER

An Appearance Improvement additive for White Oils

White oil products like MS, Naphtha, SKO, ATF and HSD are transported through multi product pipelines as this is the cheapest and eco-friendly mode of transfer. During pipeline preventive or breakdown maintenance activities, the line product is flushed with water to ensure to avoid fire related hazard. Complete water draining of the pipeline during maintenance cannot be carried out due to operational and maintenance constraints, resulting in water coming in contact with the petroleum products post maintenance activity. The water in the pipeline gets dispersed into the fuel resulting in hazy product receipt at the receiving station.



To help the receiving locations overcome such issues, HP Green R&D Centre has developed a novel dehazing additive (HP DEHAZER) that can treat the haziness of the white oils products, thus improving the appearance to bright and clear within short span of time



Fig 2a

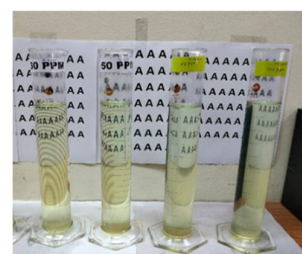


Fig 2b

Fig 1a. Freshly additized HSD samples with varying dosage of 30, 50, 80, 100 ppm (read from left to right)

Fig 1b. Additized HSD samples with varying dosage of 30, 50, 80, 100 ppm (read from left to right) after five hrs of residence time. All Samples became clear and bright

The mechanism by which the haziness is created is shown in Fig 1a where high speed moment of the product when water is present can result in receipt of hazy product shown in Fig 1b

As per IS 1460: 2017 for BSVI HSD, the appearance of the product should be clear & bright. The appearance of the hazy product can be improved by allowing the dissolved water to separate under gravity for atleast 4-5 days. In order to meet the market demand for the product, such long residence durations is not sustainable and will result in product shortages.

Lab scale performance and dosage optimization of HP DEHAZER was carried out. The dosage was ideal in the range of 15-30 ppm. HP DEHAZER was scaled up and field trials were carried out successfully at MPSPL-Pakni receiving station. About 15000 kl of hazy diesel product was cleared and liquidated within span of 2 days. MPSPL-Pakni continues to use the additive to treat hazy diesel product.

HP DEHAZER is also supplied to VDPL-Dharmapuri receiving station for treatment of hazy Diesel product.