

BHARAT ECOCHEM: Fuel additive for ethanol blended motor spirit (MS)

BHARAT ECOCHEM is a fuel additive to protect the metallurgy of fuel tank and the other components of the fuel system in automobiles running on ethanol-blended motor spirit. In India, currently 5% ethanol blending in Motor Spirit (MS) is mandatory which is proposed to be increased to 10% in coming years.

In past two years, approximately 500,000 MT of ethanol is blended with MS. Blending of ethanol reduces the dependency on fossil fuels to an extent. However, ethanol blending in MS accelerates corrosion susceptibilities of metals during pipeline transportation, storage, automobile fueling systems etc. due to ethanol's hygroscopic nature and impurities present in it. Therefore corrosion inhibitors are added into these ethanol-MS blends for reducing corrosion.

BPCL Corporate R&D Centre developed ethanol corrosion inhibitor, BHARAT ECOCHEM, which is an import substitute, cost effective and technically superior additive for ethanol-MS blends. The additive is developed and tested in the laboratory for various metallurgies. Before commercialization, the product was sent to various BPCL depots for field trials. After successful field trials, the product, *BHARAT ECOCHEM* was commercially launched in January 2016. The cost of *BHARAT ECOCHEM* is four times lesser than the imported corrosion inhibitor which is being used by oil marketing companies in India.

The intellectual property rights of *BHARAT ECOCHEM* have been secured by filing patents in the countries of business interest such as India, Brazil, Canada, Europe, Thailand and United States of America. *BHARAT ECOCHEM* is indigenously manufactured for commercial use qualifying for **Made in India Initiative** (Product Innovated and Produced in India). This innovation has conferred with Special Commendation Award for “***Innovator of the year – Team***”, by Petroleum Federation of India in 2011-12.