



EXPRESSION OF INTEREST (EOI) FOR ENROLLING BIDDERS FOR LONG TERM ARRANGEMENT OF SUPPLY OF DENATURED ANHYDROUS ETHANOL TO OIL MARKETING COMPANIES' (OMCs) LOCATIONS FOR THE PERIOD TILL 30.11.2025

### **ANNEXURE-I**

### SPECIFICATIONS FOR DENATURED ANHYDROUS ETHANOL

# INDUSTRY SPECIFICATIONS OF DENATURED ANHYDROUS ETHANOL BASED ON IS 15464:2004 and revision from BIS from time to time

| Sr.<br>No. | Characteristics                                     | Industry<br>EOI<br>Specification                       | Methods of Test,<br>Refer to Annex of<br>IS 15464: 2004 |
|------------|---|--|---|
| 1.         | Relative density at 15.6cC / 15.6cC max.            | 0.7956   | A   |
| 2.         | Ethanol content % by volume at 15.6cC / 15.6cC min. | 99.6   | В   |
| 3.         | Miscibility with water                              | Miscible   | O   |
| 4.         | Alkalinity  | Nil  | D   |
| 5.         | Acidity (as CH3COOH), mg/l, Max.                    | 30   | D   |
| 6.         | Residue on evaporation, percent by mass, Max.       | 0.005  | Е   |
| 7.         | Aldehyde content (as CH3CHO) mg / I , Max           | 60   | F   |
| 8.         | Copper , mg/kg,Max                                  | 0.1  | G   |
| 9.         | Conductivity , µs/m,Max                             | 300  | Н   |
| 10.        | Methyl alcohol , mg/litre , Max                     | 300  | J   |
| 11.        | Appearance  | Clear & bright<br>and free from<br>suspended<br>matter | Visual  |





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### **DENATURANTS:**

The denaturant should be added with Ethanol in suitable dosage as per IS: 4117 in line with IS-15464 and as per prescribed Excise regulation from time to time conforming to the automotive fuel requirements. Denaturants may be considered as a part of Ethanol and component of the fuel. Ethanol should not have more than 0.4% max impurities including permitted denaturants. These denaturants should not have detrimental effect on specification and stability of Motor Gasoline.

Some of the Prohibited denaturants for Ethanol that cannot be used are Pyroles, Methanol, Turpentine, Ketones, Tar, Benzene, Organo-metallic compounds.

The denaturants should be pre mixed at Ethanol manufacturer end before transporting the Ethanol to Oil Company premises. The name and dosage of the denaturants used should be clearly mentioned on the delivery documents duly endorsed by State Excise Authorities where ever state excise control exists, or otherwise by the authorized person in the distillery.

## NOTE FOR BIDDERS SUBMITTING SAFETY PRECAUTION LETTER ISSUED BY PESO:

Such bidders shall have to submit a valid PESO license by November 2021.