

**ANNEXURE**  
**(for Market Enquiry)**

**17<sup>th</sup> February, 2017**

**Requirement of "Denatured Ethyl Alcohol (DEA) / Special Denatured Spirit (SDS)" for Ethyl Acetate Plant**

GNFC intend to procure approximately 12,500 Kilo liters / 10,000 MT ( $\pm 5\%$ ) of;

- a) Denatured Ethyl Alcohol (DEA) under Direct Import on CFR, Pipavav Sea Port, Gujarat basis, in bulk shipment(s) as per Technical specifications mentioned hereunder at "Annexure-A"  
and/or
- b) Special Denatured Spirit (SDS) on FOR GNFC, Bharuch basis as per the Technical Specification mentioned hereunder at "Annexure-B"

GNFC requires the material as above for its production requirement during the period from May, 2017 to August 2017.

The bidders who are interested to participate in the tender are hereby intimated to contact following officials on or before **27.02.2017, 17.00 hrs. IST**; for further information to submit their offers.

Contact Persons:

1. BS Limbachia Addl. General Manger - Email ID : bslimbachia@gnfc.in
2. VM Patel Addl. General Manger - Email ID : vmpatel@gnfc.in
3. SM Shah Manager - Email ID : sureshshah@gnfc.in

**P A Mankad**  
**Executive Director**

## ANNEXURE - A

### Technical Specifications of Imported Denatured Ethyl Alcohol (DEA) with 5 PPM Bitrex as Bitterent

Sr.No.	Parameters	GNFC Specifications
1	Purity of Denatured Ethyl Alcohol	
	a. For Hydrous DEA OR b. For Anhydrous DEA	94.7 % v/v (min) OR 99 % v/v (min)
2	Appearance	Clear & Colorless
3	Methanol	800 ppm Max.
4	Miscibility with water	Miscible
5	Alkalinity	Nil
6	Benzene	Less than 1 ppm
7	Acidity (as Acetic Acid) percent by weight	Max. 0.01% w/w
8	Residue on Evaporation Percent by Weight	Max. 0.01% w/w
9	Aldehyde content (CH <sub>3</sub> CHO) gms/100 ml	Max 0.10 gms/100ml
10	Copper (as - <b>Cu</b> ) gms/100 ml max	Less than 0.05 ppm
11	Bitterent (Bitrex) in SDS	5 PPM
12	Higher Alcohols (i.e Iso Propanol, N-propanol, Iso-butanol , N Butanol, N Pantanol, Iso Pantanol, Hexanol )	3000 ppm Max.
13	Chloride content	2.0 ppm (Max.)

## ANNEXURE - B

### Technical Specifications of Special Denatured Spirit (SDS)

Sr. No.	Parameters	GNFC Specifications
1	SDS strength after addition of Denaturant and Bitterent	
	a. For Hydrous SDS ( OR ) b. For Anhydrous SDS	94.7 % v/v (min) ( OR ) 99 % v/v (min)
2	Ethanol Strength in SDS	
	a. For Hydrous SDS	94.20% v/v (Min) with Denaturant 0.5% (v/v) OR 93.70% v/v (Min) with Denaturant 1.0% (v/v)
	b. For Anhydrous SDS	98% v/v (Min) with Denaturant 1.0% (v/v)
3	Appearance	Clear & Colorless
4	Methanol	800 ppm Max.
5	Denaturant (Ethyl Acetate) in SDS	0.50%(v/v) OR 1.0% (v/v)
6	Degrees over proof	66 min
7	Miscibility with water	Miscible
8	Alkalinity	Nil
9	Benzene	Less than 1 ppm
10	Acidity (as Acetic Acid) percent by weight	Max. 0.01% w/w
11	Residue on Evaporation Percent by Weight	Max. 0.01% w/w
12	Aldehyde content (CH <sub>3</sub> CHO) gms/100 ml	Max 0.10 gms/100ml
13	Copper (as - <b>Cu</b> ) gms/100 ml max	Less than 0.05 ppm
14	Bitterent (Dentanium Saccharide) in SDS	50 ppm
15	Higher Alcohols (i.e Iso Propanol, N-propanol, Iso-butanol , N Butanol, N Pantonal, Iso Pantanol, Hexanol )	3000 ppm Max.
16	Chloride content	2.0 ppm (Max.)

**Note:** It may please be noted that, there is no direct standard available for SDS, but SDS is to be prepared by adding Denaturant and Bitterent in Ethanol for which relevant standard is IS-323-1959 Grade-I.