### CHINESE STANDARD FOR “DENATURED FUEL ETHANOL”
**GB 1850-2013**

**Date of Implementation – Nationwide:** May 1, 2014  
**Spec Name:** GB 18350-2013  
**Grade:** Anhydrous Fuel Grade  
**Source:** Standardization Administration of the People’s Republic of China

| PROPERTY                              | LIMITS  | TEST METHOD  
|---------------------------------------|---------|--------------|
| Ethanol, vol%, min                    | 92.1    | ASTM D 5501  
| Methanol, vol%, max                   | 0.5     | ASTM D 5501  
| Gum (solvent washed), mg/100mL, max  | 5       | ASTM D 381   
| Water, vol%, max                      | 0.8     | ASTM E 203   
| Inorganic chloride, mg/L, max         | 8       | ASTM D 7319  
| Acidity (acetic acid) mg/L, max       | 56      | ASTM D 1613  
| Copper, ppm, max                      | 0.08    | ASTM D 1688  
| pH                                   | 6.5 ~ 9.0 | ASTM D 6423  
| Sulfur, mg/kg, max                    | 30      | ASTM D 5194 or D 5453  
| Denaturant, vol%, max                 | 0.99 ~ 4.76 (2) | Calculated  
| Appearance                            | Clear and transparent, no visibly suspended particles and sediments | ASTM D 4175  
| Density at 20º C., g/m³              | 0.7918 ~ 0.7893 | ASTM D 4052  

**Notes:**  
1. U.S. ASTM Test Methods equivalent to GB (China) Test Methods  
2. Fuel ethanol is to be mixed with the denaturant in a ratio of 100:1 – 100:5