HONGKONG LUCKYSTAR ADDITIVES CO., LTD.

UNIT 1001, FOURSEAS BUILDING, 208-212, NATHAN ROAD, KOWLOON, HONGKONG

Certificate of Analysis

Product Name: Xanthan Gum, Food Grade, 80mesh, SHL XG980

Quality Status: meeting FCC IV, E-415 Edition, USP23/24

Xanthan Gum was produced in conformity with Food Safety System

Material must be fit for use in food and pharmaceutical applications under currently

valid European and international food and pharmaceutical laws

GMO Free

Analysis Date: 2015. 02. 05. Batch Type: SHL_XG980 Expiry Date: 2017. 02. 04. Manufacturing Date: 2015. 02. 05. Lot no.: F9801502185 Quantity: 10000kgs

Testing Results *Item* Standard Value white to cream colored, free flowing powder Appearance Conform Solubility soluble in hot or cold water Conform Viscosity 1200-1700Pa.s (1% in 1%KCL-solution, Spindle 3, 60rpm, 25 °C) 1555Pa.s Particle Size Through 60Mesh (250micron) 100% 100% Through 80Mesh (180micron) >96% 97.50% 1.02-1.45 Viscosity Ratio (V1: V2) 1.05 Loss on Drying <13% 11.28% pH of 1% solution 6-8 7.45 Pyruvic Acid >1.5% 3.50% <13% 9.10% Ash **Shearing Ratio** >6.0 8.16 Isopropyl Alcohol ≤500ppm Conform 91%-108% Assay Conform Nitrogen <1.5% Conform Lead Conform <2ppm Conform Arsenic < 3ppm Heavy Metals < 10ppm Conform **Total Plate Count** < 2000cfu/g 800cfu/g Moulds and Yeast < 100cfu/q Conform HONGKONG LUCKYSTAR ADDITIVES CO., LIMITED ON FORM Staphylococcus aureus Negative/g Salmonella Negative/g E.coli Negative/g Conform

Packing: 25kgs kraft paper bag, palletized and shrink wrapped

Storage: in sealed containers under dry and cool conditions