



胜华新能源科技（东营）有限公司  
SHINGHWA AMPEREX TECHNOLOGY (DONGYING) CO.LTD

**MANUFACTURER`S CERTIFICATE OF ANALYSIS**

**Name Of The Product:** Propylene Glycol Tech Grade  
**Batch NO:** 1P03-202307234  
**Quantity:** 51600Kgs  
**Mfg. Date:** JUL.27, 2023  
**Exp. Date:** JUL.26, 2024  
**Issuing Date:** JUL.27, 2023

**Specification:**

| Quality index                                     | Standard                                  | Result                                    |
|---------------------------------------------------|-------------------------------------------|-------------------------------------------|
| PG content, m/m, %                                | 99.80 % min                               | 99.84                                     |
| Moisture, m/m, %                                  | 0.20% max                                 | 0.057                                     |
| Density (20 °C), g/cm <sup>3</sup>                | 1.035-1.040                               | 1.038                                     |
| Index of refraction, n <sub>D</sub> <sup>20</sup> | 1.428-1.435                               | 1.432                                     |
| Acidity(As Acetic Acid), %                        | 0.02 max                                  | 0.002                                     |
| Distillation range (IBP-DP)                       | 183-190                                   | 186-188                                   |
| Colourity (Pt-Co)                                 | 10 max                                    | 5                                         |
| Appearance                                        | Colorless, Viscous,<br>transparent liquid | Colorless, Viscous,<br>transparent liquid |

**Conclusion:**

The products of this batch number can reach the specification of the standard by analysis.

THE NUMBER OF THIS LETTER OF CREDIT 529011058983-S

