



**CERTIFICATE OF ANALYSIS (COA)**  
**REFINED CORN OIL (RAFİNE MISIR YAĞI)**

**Product Category**

**CORN OIL**

| Parameter                              | Specification Limit | Analysis Value | Result |
|----------------------------------------|---------------------|----------------|--------|
| Free acidity (oleic acid)(% m/m)       | ≤ 0,3               | 0,1            | ✓      |
| Moisture and volatile matter( % m/m)   | ≤ 0,2               | 0,02           | ✓      |
| Peroxide value(meq O <sub>2</sub> /kg) | ≤ 10                | 0,5            | ✓      |
| Iodine Value(Wijs)                     | 103-135             | 120,95         | ✓      |
| Colour (Red)(5 1/4")                   | 1,4-2,5             | 2,20           | ✓      |
| Soap(m/m)                              | ≤ 0,005             | 0,00           | ✓      |

| Fatty acid composition<br>(Total Methyl esters) (%m/m) | Specification Limit | Analysis Value | Result |
|--------------------------------------------------------|---------------------|----------------|--------|
| Lauric acid (C12:0)                                    | ≤ 0,3               | 0,00           | ✓      |
| Myristic acid (C14:0)                                  | ≤ 0,3               | 0,04           | ✓      |
| Palmitic acid(C16:0)                                   | 8,6-16,5            | 11,97          | ✓      |
| Palmitoleic acid(C16:1)                                | ≤ 0,5               | 0,18           | ✓      |
| Heptadecanoic acid (C17:0)                             | ≤ 0,1               | 0,05           | ✓      |
| Heptadecenoic acid (C17:1)                             | ≤ 0,1               | 0,01           | ✓      |
| Stearic acid (C18:0)                                   | ≤ 3,3               | 2,10           | ✓      |
| Oleic acid(C18:1)                                      | 20,0-42,2           | 30,20          | ✓      |
| Linoleic acid (C18:2)                                  | 34,0-65,6           | 53,76          | ✓      |
| Linolenic acid(C18:3)                                  | ≤ 2,0               | 0,86           | ✓      |
| Arachidic acid (C20:0)                                 | 0,3-1,0             | 0,40           | ✓      |
| Gadoleic/Eicosenoic acid (C20:1)                       | 0,2-0,6             | 0,30           | ✓      |
| Behenic acid (C22:0)                                   | ≤ 0,5               | 0,20           | ✓      |
| Lignoseric acid (C24:0)                                | ≤ 0,5               | 0,00           | ✓      |

| Sterol Composition<br>(% total sterols) | Specification Limit | Analysis Value | Result |
|-----------------------------------------|---------------------|----------------|--------|
| Cholesterol                             | 0,2- 0,6            | 0,26           | ✓      |
| Brassicasterol                          | ≤ 0,2               | 0,05           | ✓      |
| Campesterol                             | 16,0-24,1           | 20,22          | ✓      |
| Stigmasterol                            | 4,3-8,0             | 7,72           | ✓      |
| β-Sitosterol                            | 54,8-66,6           | 61,24          | ✓      |
| Δ-5 Avenasterol                         | 1,5-8,2             | 3,40           | ✓      |
| Δ-7 Stigmasterol                        | 0,2-4,2             | 0,81           | ✓      |
| Δ-7 Avenasterol                         | 0,3-2,7             | 0,73           | ✓      |

**The product complies with the specified limits.**

**Approved by Quality Control Supervisor**