

## CERTIFICATE OF ANALYSIS

**PRODUCT NAME: BLACKCURRANT SEED OIL, 15% GLA REFINED**

**LOT NUMBER: LOT0004011**

PRODUCT INCI: RIBES NIGRUM

PRODUCT CODE: K0070

CAS NUMBER: 97676-19-2

EINECS NUMBER: N/A

MANUFACTURING METHOD: EXPPELLER PRESSED, REFINED

MANUFACTURING DATE: 29/08/2019

BEST BEFORE END DATE: 29/08/2021

| ANALYTICAL DETAILS                       | RANGE %              | RESULTS |
|--|----------------------|---------|
| APPEARANCE                               | OILY LIQUID          | -       |
| ODOUR                                    | ODOURLESS            | -       |
| COLOUR                                   | CLEAR – LIGHT YELLOW | -       |
| COLOUR GARDNER                           | < 8.0                | 7.9     |
| SPECIFIC GRAVITY @ 20°C                  | 0.920 – 0.935        | 0.926   |
| REFRACTIVE INDEX @ 20°C (NR)             | 1.478 – 1.484        | 1.4798  |
| FREE FATTY ACID (% AS OLEIC)             | < 0.5                | -       |
| PEROXIDE VALUE (MEQ O <sub>2</sub> / KG) | <15.0                | 1.6     |
| IODINE VALUE                             | 10.0 – 22.0          | -       |
| ACID VALUE                               | <1.0                 | 0.27    |
| SAPONIFICATION VALUE (MG KOH/GR)         | 185.0 – 195.0        | 189.0   |
| UNSATONIFIABLE MATTER                    | < 2.5                | 1.15    |

| FATTY ACID PROFILE |                 | RANGE %     | RESULTS |
|--------------------|-----------------|-------------|---------|
| C-CHAIN            | ACID NAME       |             |         |
| C16:0              | PALMITIC        | 5.0 – 8.5   | 6.2     |
| C18:0              | STEARIC         | 1.0 – 3.0   | 1.4     |
| C18:1              | OLEIC           | 8.0 – 16.0  | 10.3    |
| C18:2              | LINOLEIC        | 43.0 – 50.0 | 48.3    |
| C18:3              | ALPHA-LINOLENIC | 12.0 – 16.0 | 14.7    |
| C18:3              | GAMMA-LINOLENIC | >15         | 15.4    |
| C18:4              | STEARIDONIC     | >2.0        | 2.6     |

### FREE FROM TESTS

|                            |      |
|----------------------------|------|
| APRICOT & PEACH KERNEL OIL | PASS |
| SESAME SEED OIL            | PASS |
| COTTONSEED OIL             | PASS |
| ARACHIS OIL                | PASS |
| MINERAL OIL                | PASS |
| FOREIGN OILS               | PASS |