

CERTIFICATE OF ANALYSIS

PRODUCT NAME: CASTOR OIL (No1), REFINED

BOMAR BATCH: Q0762 (LOT NUMBER: LOT0011014)

PRODUCT INCI: RICINUS COMMUNIS SEED OIL

PRODUCT CODE: K0108

CAS NUMBER: 8001-79-4

EINECS NUMBER: 232-293-8

MANUFACTURING METHOD: EXPPELLER PRESSED, REFINED

MANUFACTURING DATE: 24/10/2021

BEST BEFORE DATE: 24/10/2023

| ANALYTICAL DETAILS | RANGE % | RESULTS |
|-----------------------------------------|---------------------------|-------------|
| APPEARANCE | OILY LIQUID | - |
| ODOUR | ODOURLESS | - |
| COLOUR | CLEAR – GREENISH - YELLOW | - |
| COLOUR LOVIBOND | ≤2R, ≤20Y | 1.1R, 11.0Y |
| SPECIFIC GRAVITY @ 20°C | 0.915 – 0.925 | 0.925 |
| RELATIVE DENSITY @ 15°C | 0.957 – 0.970 | 0.9627 |
| REFRACTIVE INDEX @ 20°C | 1.477 – 1.481 | 1.4788 |
| FREE FATTY ACID (% AS OLEIC) | < 1.0 | 0.72 |
| PEROXIDE VALUE (MEQ O ₂ /KG) | <10.0 | 2.5 |
| IODINE VALUE (G/100G) | 82.0 – 90.0 | 85.38 |
| ACID VALUE | <2.0 | 1.43 |
| SAPONIFICATION VALUE (MG KOH/GR) | 177.0 – 187.0 | 180.25 |
| UNSAAPONIFIABLE MATTER | ≤1.0 | 0.37 |
| ACETYL VALUE (MGKOH/G) | 140.0 – 150.0 | 141.0 |
| HYDROXL VALUE (MGKOH/G) | 160.0 – 169.0 | 165.16 |

| FATTY ACID PROFILE | | RANGE % | RESULTS |
|--------------------|------------|-------------|---------|
| C-CHAIN | ACID NAME | | |
| C16:0 | PALMITIC | 1.0 – 2.0 | 1.51 |
| C18:0 | STEARIC | 1.0 – 3.0 | 1.9 |
| C18:1 | OLEIC | 2.0 – 5.0 | 4.4 |
| C18:1 | RICINOLEIC | 85.0 – 90.0 | 87.63 |
| C18:2 | LINOLEIC | 3.0 – 7.0 | 4.2 |

The attached information is considered to be correct at the time the client received this information. Please be aware that detail can change and we encourage clients to update their records with BOMAR regularly. The information is not and should not be considered a guarantee or warranty, or a part of our contractual or other legal obligations. The information is not to be disclosed to others, reproduced or transmitted in whole or in part without permission from BOMAR.