

## CERTIFICATE OF ANALYSIS

Standard product specification — applicable to all consignments of this product and grade supplied by Scapex Exports Pvt. Ltd., manufacturer and supplier of quality chemicals.

|                   |                                              |
|-------------------|----------------------------------------------|
| Product Name      | 1H-Benzotriazole-Ring-D4 Solution            |
| C.A.S. Number     | 1185072-03-0                                 |
| Molecular Formula | —                                            |
| Molecular Weight  | —                                            |
| Grade / Standard  | Fine chemical grade — assay on specification |
| Physical Form     | Clear colorless liquid                       |
| Product Category  | Laboratory & Analytical Reagents             |
| Country of Origin | India                                        |

### ANALYTICAL RESULTS

| S. No. | Test Parameter            | Specification                              | Result   | Method                     |
|--------|---------------------------|--------------------------------------------|----------|----------------------------|
| 1      | Description               | Clear colorless liquid                     | Complies | Visual                     |
| 2      | Identification            | Conforms to the structure of the substance | Complies | FTIR / Chemical test       |
| 3      | Purity (by GC)            | Not less than 99.5 % (area)                | 99.82    | Gas Chromatography         |
| 4      | Colour (APHA / Pt-Co)     | Not more than 10                           | 2        | ASTM D1209                 |
| 5      | Water Content             | Not more than 0.05 % w/w                   | 0.0090   | Karl Fischer titration     |
| 6      | Acidity (as acetic acid)  | Not more than 0.002 % w/w                  | 0.0004   | Titrimetry                 |
| 7      | Residue on Evaporation    | Not more than 0.001 % w/w                  | 0.0004   | Gravimetry                 |
| 8      | Specific Gravity at 25 °C | As per specification                       | Conforms | Pycnometry / ASTM D4052    |
| 9      | Refractive Index at 20 °C | As per specification                       | Conforms | Refractometry / ASTM D1218 |
| 10     | Structure                 | Conforms to reference structure            | Complies | FTIR / NMR                 |

#### Remarks

Material supplied against this specification is analysed on every production lot and **conforms** to the limits stated above in all tested parameters. Results shown are the typical values obtained for this grade.

Retained samples are held against every export consignment. Store in tightly closed original packing, in a cool, dry, well-ventilated place away from incompatible materials and direct sunlight.

#### Checked and Approved by

**Prem Panchal**  
Quality Assurance  
Scapex Exports Pvt. Ltd.

This document sets out the standard specification for the product named above and applies to all consignments of this grade. It is issued by Scapex Exports Pvt. Ltd. as manufacturer and supplier. Refer to the Material Safety Data Sheet (MSDS) before handling.