



## CERTIFICATE OF ANALYSIS

20 Martin Ross Avenue, North York, ON, M3J 2K8, CANADA  
Tel: (416) 665-9696, Fax: (416) 665-4439  
Email: orders.trc@lgcgroup.com Website: www.trc-canada.com

### 1. Identification

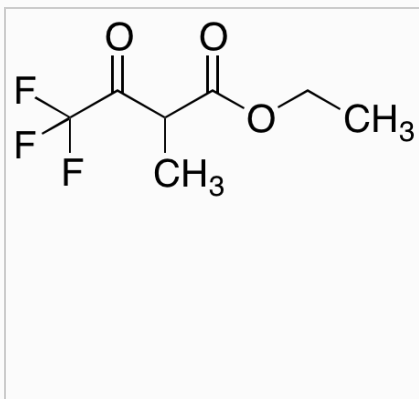
**Catalogue Number:** E890940

**CAS Number:** 344-00-3

**Product:** Ethyl 2-(trifluoroacetyl)propionate

**Synonym:** Ethyl 2-methyl-4,4,4-trifluoroacetoacetate; Ethyl 4,4,4-trifluoro-2-methyl-3-oxobutanoate; Ethyl 4,4,4-trifluoro-2-methylacetoacetate; Ethyl ( $\pm$ )-2-methyl-4,4,4-trifluoroacetoacetate; Ethyl 2-methyl-4,4,4-trifluoroacetoacetate

**Structure:**



**Molecular Formula:**

C<sub>7</sub>H<sub>9</sub>F<sub>3</sub>O<sub>3</sub>

**Molecular weight:**

198.14

**Source of Product:**

N/A

**Solubility:**

Chloroform (Sparingly),  
DMSO (Slightly), Ethyl Acetate  
(Slightly), Methanol (Spa

**Lot Number:** 711659578-1-1

**Purity:** 95%

**Shipping Condition:** This Product Is Stable To Be  
Shipped At Room Temperature

**Storage Condition:** 20°C

### 2. Warning

**Warning 1:**

**Warning 2:**

**Warning 3:**

### 3. Analytical Information

| Tests:            | Specifications:               | Results:                  |
|-------------------|-------------------------------|---------------------------|
| Appearance        | Colourless to Pale Yellow Oil | Clear Colourless Oil      |
| NMR               | Conforms to Structure         | Conforms                  |
| F NMR             | Conforms to Structure         | Conforms                  |
| C NMR             | Conforms to Structure         | Conforms                  |
| MS                | Conforms to Structure         | Conforms                  |
| Specific Rotation | Report Result                 | +0.1° (c = 0.2, Methanol) |

**Additional Information:** N/A

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of  $\pm$  2%. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

### 4. Signatures

| Reviewed By | Reviewed By   | C of A Approved By  | Test Date | Retest Date |
|-------------|---------------|---------------------|-----------|-------------|
| Henry Tieu  | Toni Rantanen | Christina Gouliaras | 9/2/2022  | 8/31/2026   |