

## Supporting Information

### Catalyst-Free Direct Decarboxylative Coupling of $\alpha$ -Keto Acids with Thiols: A Strategy for the Synthesis of Thioesters

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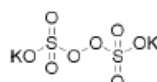
|                                                                                |    |
|--------------------------------------------------------------------------------|----|
| Certificate of analysis (K <sub>2</sub> S <sub>2</sub> O <sub>8</sub> ).....   | P2 |
| The <sup>1</sup> H and <sup>13</sup> C NMR spectra of compounds <b>3a-4</b> .. | P3 |

## CERTIFICATE OF ANALYSIS

**PRODUCT NAME:**

Potassium persulfate, 99.99% metals basis

ITEM NUMBER: P112194  
 LOT NUMBER: A1529026  
 BRAND: Aladdin  
 CAS NUMBER: 7727-21-1  
 MDL NUMBER: MFCD00011386  
 FORMULA: K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>  
 FORMULA WEIGHT: 270.32  
 QUALITY RELEASE DATE: 03/Feb/2015



| TEST                                   | SPECIFICATION                           |         | VALUE   | RESULT               |
|----------------------------------------|-----------------------------------------|---------|---------|----------------------|
|                                        | MIN.                                    | MAX.    |         |                      |
| APPEARANCE                             | COLORLESS TO WHITE POWDER AND/OR CHUNKS |         |         | CONSISTENT           |
| ICP                                    | CONFIRMS K AND S COMPONENTS CONFIRMED   |         |         | CONFORMS             |
| X-RAY DIFFRACTION                      | CONFORMS TO STRUCTURE                   |         |         | CONFORMS TO STANDARD |
| TOTAL METALLIC IMPURITIES              | 0 ppm                                   | 200 ppm | 200 PPM | 120.000000 PPM       |
| POTASSIUM (K)                          | 27.9 %                                  | 29.9 %  | 29.9 %  | 28.900000 %          |
| PURITY(BASED ON TRACE METALS ANALYSIS) | 99.99 %                                 | 100 %   | 100 %   | 99.993000 %          |



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 ALADDIN REAGENT  
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Aladdin warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [www.aladdin-e.com](http://www.aladdin-e.com). For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of Invoice or packing slip for additional terms and conditions of sale

VERSION NUMBER: 1

