

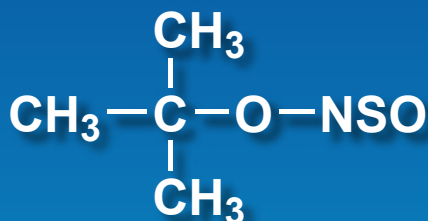
New

CHEMISTRY

TCI®

Reagent for the Synthesis of Primary Sulfonamides

*t*BuONSO



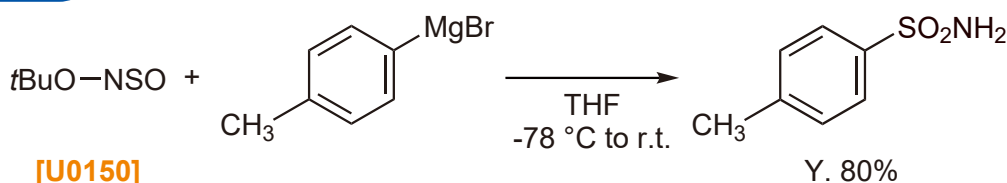
(*tert*-Butoxyimino)- λ^4 -sulfanone
(= *t*BuONSO)

1g / 10g
[U0150]

Advantages

- Reacts with organolithium reagents or Grignard reagents to give the corresponding primary sulfonamides.
- Useful for the fragment-based drug discovery and parallel library synthesis.
- The given primary sulfonamide is a bioisostere of carboxylic acid.

Application



TCI practical example:

To a solution of **U0150** (400 mg, 2.96 mmol), in THF (anhydrous, 12 mL) was added *p*-tolylmagnesium bromide (19% in tetrahydrofuran, ca. 1mol/L, 4.4 mL, 4.4 mmol) at -78 °C and the mixture was stirred at -78 °C for 1 hour. The suspension was warmed at room temperature and stirred overnight. After that, methanol (1 mL) was added to the reaction mixture and the solvent was removed under reduced pressure. The residue was purified by column chromatography (ethyl acetate:hexane = 0:1 - 1:4 on silica gel) to give 4-methylbenzenesulfonamide as a white solid (407 mg, 80%).

References T. Q. Davies, M. J. Tilby, D. Skolc, A. Hall, M. C. Willis, *Org. Lett.* **2020**, *22*, 9495. <https://doi.org/10.1021/acs.orglett.0c03505>
S. Tummanapalli, S. K. Punna, *et al.*, *Tetrahedron Lett.* **2021**, *73*, 153118. <https://doi.org/10.1016/j.tetlet.2021.153118>

This product was commercialized under the instruction of Prof. Michael C. Willis.

Related Products

Bis(sulfur Dioxide)-1,4-diazabicyclo[2.2.2]octane Adduct (= DABSO)

1g / 5g [B3960]

Sulfur Dioxide 1-Methylpyrrolidine Adduct (= TIMSO)

5g / 25g [U0113]

(Triphenylmethyl)thionyl Imide (= TrNSO)

1g / 5g [T3773]

For further information please refer to our website at www.TCIchemicals.com.

TCI C-S bond



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Fax : 888-520-1075 / 503-283-1987
E-mail : Sales-US@TCIchemicals.com

TCI EUROPE N.V.

Tel : +32 (0)3 735 07 00
Fax : +32 (0)3 735 07 01
E-mail : Sales-EU@TCIchemicals.com

TCI Deutschland GmbH

Tel : +49 (0)6196 64053-00
Fax : +49 (0)6196 64053-01
E-mail : Sales-DE@TCIchemicals.com

Tokyo Chemical Industry UK Ltd.

Tel : +44 (0)1865 78 45 60
E-mail : Sales-UK@TCIchemicals.com

TCI Chemicals (India) Pvt. Ltd.

Tel : 1800 425 7889 / 044-2262 0909
E-mail : Sales-IN@TCIchemicals.com

梯希爱(上海)化成工业发展有限公司

Tel : 800-988-0390 / 021-67121386
Fax : 021-6712-1385
E-mail : Sales-CN@TCIchemicals.com

TOKYO CHEMICAL INDUSTRY CO., LTD.

Tel : +81 (0)3-5640-8878
E-mail : globalbusiness@TCIchemicals.com

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