# **Fine Chemicals**

## di-2-methoxyethyl azodicarboxylate

### **DMEAD®**

In the Mitsunobu reaction, a major drawback of this reaction is formation of two co-products, hydrazinedicarboxylate and phosphine oxide, which must be removed from the reaction mixture to isolate a target compound.

In case of using well known DEAD (diethyl azodicarboxylate) or DIAD (diisopropyl azodicarboxylate), separation of co-produced diethyl or diisopropyl hydrazinedicarboxylate often requires several process steps and large amounts of solvent for the purification because of the solubility and polarity of the hydrazine-dicarboxylates.

DMEAD® (di-2-methoxyethyl azodicarboxylate) is a new reagent for the Mitsunobu reaction developed by Prof. T. Sugimura (Graduate School of Material Science, University of Hyogo.). The co-produced hydrazine (di-2-methoxyethyl hydrazinedicarboxylate) is highly water soluble (0.55 g/mL), and can be removed by washing with neutral water.

We assume that DMEAD® can contribute to establish an operationally easy, cost effective, and environmentally friendly process in the Mitsunobu reaction.

参照:Chem. Lett. 2007, 36, 566

#### General

- CAS Registry No.:940868-64-4.
- MW:234.21℃.

#### **Physical Data**

- Appearance: Light Yellow Prism.
- Melting Point:40-41℃.
- Decomposition Temp.:210 $^{\circ}$ C,927 J/g(DSC).

#### Solubility

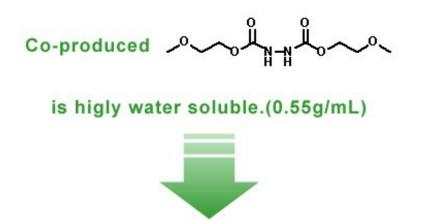
Soluble in THF, Toluene, CH<sub>2</sub>Cl<sub>2</sub>,etc.

#### **Special Feature**

- The Rf value on TLC(Ethyl acetate/Hexane = 1/1) is 0.08.
- Corresponding values of hydrazinedicarboxylate from DIAD and DEAD are 0.65 and 0.44.

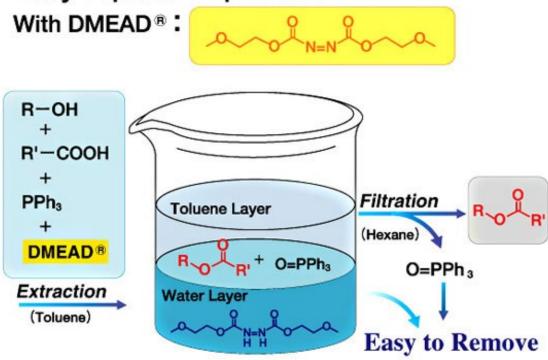
di-2-methoxyethyl azodicarboxylate

# **DMEAD®**



Easy to remove by washing with water

# Easy separation process



# **Availability**

At present, supply of DMEAD® is limited to just small quantity for your lab use. We are tackling to establish our reliable supply to your various demands.

Thank you for your patience for the inconvenience. For more information, please contact us.