>>**Entry Name: Diethylene glycol bis(allyl carbonate)**
Synonym(s): 2-Propenyl 9-oxo-2,5,8,10-tetraoxatridec-12-enoate, 9CI. Oxydiethylene diallyl carbonate, 8CI. Diallyl diethylene glycol carbonate. CR-39 monomer. DADC

CAS Registry Number: 142-22-3
$O(CH_2CH_2OCOOCH_2CH{=}CH_2)_2$

Molecular Formula: $C_{12}H_{18}O_7$
Molecular Weight: 274.27
Accurate Mass: 274.105255
Percentage Composition: C 52.55%; H 6.61%; O 40.83%
Use/Importance: Polymers are used in transparent castings e.g. for spectacle lenses, and as radiation detectors
Physical Description: Colourless liq. with a mild odour
Melting Point: Mp –4°
Boiling Point: Bp_2 161°
Solubility: Insol. H_2O; sol. org. solvs.
Density: d_4^{20}1.14
Refractive Index: n_D^{20} 1.4503
Other Data: Undergoes radical polym.
Hazard & Toxicity: Irritant to skin and eyes

Aldrich: 41121-3

References:
U.S. Pat., 1945, 2 384 115; *CA*, **40**, 2457, *(synth)*
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Schnarr, E. *et al.*, *J. Polym. Sci., Polym. Chem. Ed.*, 1980, **18**, 913, *(polym, kinetics)*
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Nikiforenko, V.S., *Dokl. Akad. Nauk SSSR*, 1988, **300**, 400; *CA*, **109**, 38300e, *(polym, kinetics)*
Hill, D.J.J. *et al.*, *Eur. Polym. J.*, 1990, **26**, 1157, *(polym, mechanism)*