

Description: Polymer supported sulfonyl hydrazide

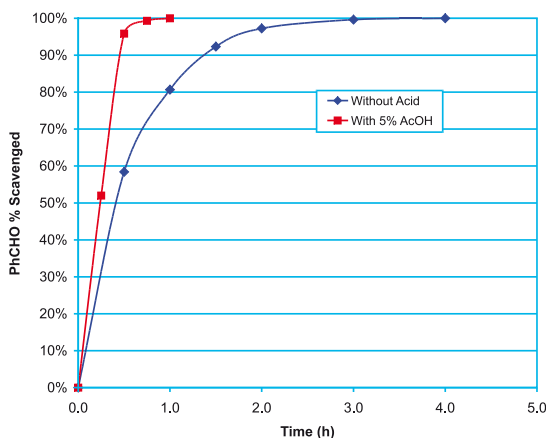
Application: Scavenger of Aldehydes / Ketones

See Also: PL-AAEM, PL-CHO, PL-MIA, PL-NCO

PL-SO₂NHNH₂ is a polymer supported equivalent of *p*-toluenesulfonyl hydrazide and is a highly effective scavenger of aldehydes and ketones. It is particularly useful for removing excess carbonyl species from reductive amination reactions. PL-SO₂NHNH₂ can also be used as a polymer-supported source of diimine, which can be used in hydrogenation and cycloaddition chemistry.

PL-SO₂NHNH₂ can also be used to form immobilized sulfonyl hydrazones, which can then undergo further organic transformations.

The rate of scavenging can be increased effectively by adding 5% glacial AcOH to act as a catalyst. The graph below shows that a solution containing benzaldehyde is fully scavenged in one hour when acid is added. In the absence of acid, the same reaction takes five hours. The addition of acid will also improve the scavenging of lesser reactive or sterically-hindered ketones.



References

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- (2) Kamogawa, H.; Kanzawa, A.; Kadoya, M. *Bull. Chem. Soc. Jpn.* **1983**, *56*, 762-765.
- (3) Galioglu, O.; Akar, A. *Eur. Polym. J.* **1989**, *25*, 313-316.
- (4) Welch, C. J.; Biba, M.; Drahus, A.; Conlon, D. A.; Tung, H. H.; Collins, P. J. *Liq. Chromatogr. R. T.* **1999**, *26*, 1959-1968.
- (5) Sun, Q.; Kyle, D. J. *Comb. Chem. & HTS* **2002**, *5*, 75-81.
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Ordering Information

PL-SO ₂ NHNH ₂ Resin (1% DVB)	Part No
2.0mmol/g 150-300μm	PL3409-1679, 5g
	PL3409-3679, 25g
	PL3409-4679, 100g
	PL3409-6679, 1kg

Additional Information

Varian Polymer Laboratories manufactures in multi kg quantities. Please enquire for details.