APPLICATION LIST #509

CIT/MIT preservative determination

CIT/MIT biocides are widely used as preservatives in variety of applications, which include household products, personal care products and polymer materials. Apart of their antimicrobial activity, CIT/MIT preservatives may cause allergy reactions. Due to this reason, the preservatives additives should be used at the lowest possible concentration and strictly controlled. This application shows the determination of CIT/MIT preservative in rhamnolipids production. ARION® C8 column shows good resolution and peaks symmetry for CIT/MIT components at low concentrations.



Test solution on ARION® C8 column

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Column	ARION [®] C8, 5 μm
Dimensions	250 mm × 4.6 mm
Part number	ARI-5734-LM46
Mobile phase	A: 0.1% H_3PO_4 in water
	B: Methanol : THF 95/5 (v/v)
	Gradient elution
Flow rate	1.0 mL/min
Injection volume	10 µL
Temperature	30 °C
Detection	DAD at 273 nm
Analytes	1. MIT (Methylisothiazolinone), CAS number 2682-20-4
	2. CIT (Methylchloroisothiazolinone), CAS number 26172-55-4

Methylisothiazolinone

Methylchloroisothiazolinone

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