

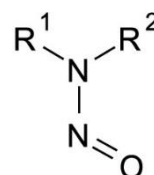
Nitrosamines European Toy Standard Method by LC-MS/MS

Application #AN1110

Conditions

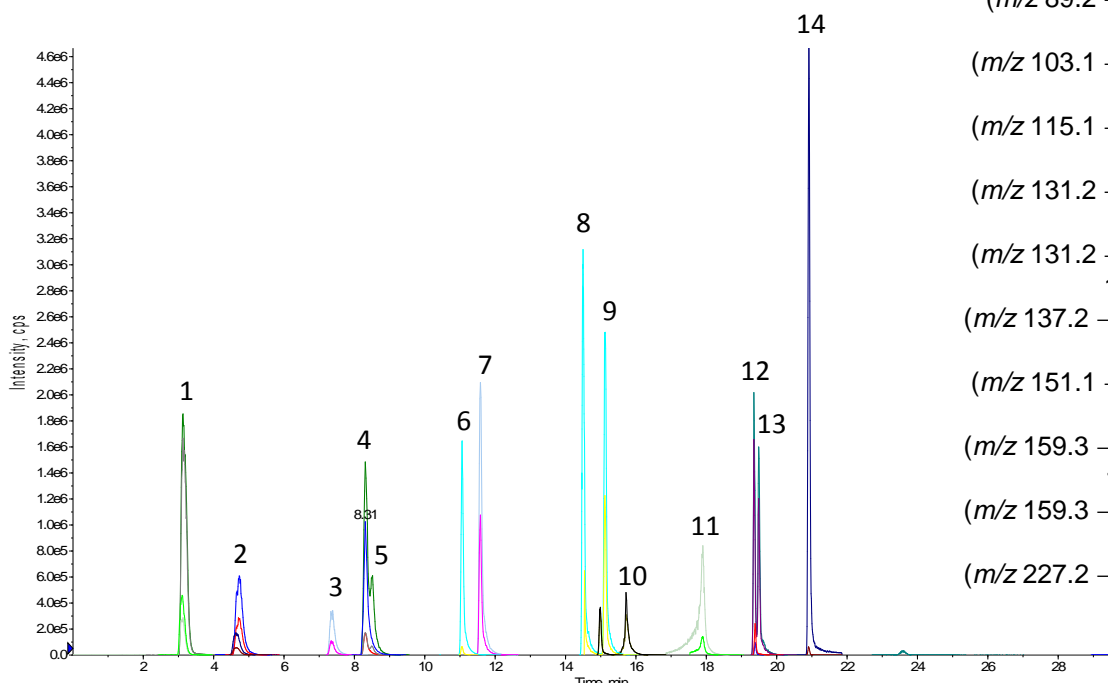
Column: ACE Excel 2 C18-PFP
Dimensions: 150 x 3.0 mm
Part Number: EXL-1010-1503U
Mobile Phase: A: 0.1% formic acid in H₂O
B: 0.1% formic acid in MeOH

Time (mins)	%B
0.0	5
1.0	5
10.0	65
14.0	65
15.0	90
20.0	90
21.0	5
30.0	5



Flow Rate: 0.35 mL/min
Injection: 20 µL
Temperature: 40 °C
Sample Temperature: 4 °C
Detection: Applied Biosystems 4000 Q-Trap MS
Source: APCI (positive mode)
Collision energy: 10-30 V
Source temperature: 300 °C

European Union EN 71-12 Safety of Toys: N-Nitrosamines and N-nitrosatable substances e.g. Analysis of nitrosamines in balloon extracts



1. NDELA
(*m/z* 135.2 → 74.2, 135.2 → 104.2)
2. NDMA
(*m/z* 74.9 → 43.2, 74.9 → 58.2)
3. Nmorph
(*m/z* 117.1 → 86.3, 117.1 → 73.3)
4. Npyrr
(*m/z* 101.2 → 55.3, 101.2 → 59.2)
5. NMEA
(*m/z* 89.2 → 61.1, 89.2 → 43.3)
6. NDEA
(*m/z* 103.1 → 75.2, 103.1 → 47.2)
7. NPIP
(*m/z* 115.1 → 69.1, 115.1 → 41.2)
8. NDnPA
(*m/z* 131.2 → 89.2, 131.2 → 43.3)
9. NdiPA
(*m/z* 131.2 → 89.2, 131.2 → 43.3)
10. NMPHa
(*m/z* 137.2 → 107.2, 137.2 → 66.1)
11. NEPhA
(*m/z* 151.1 → 77.1, 151.1 → 95.3)
12. NDiBA
(*m/z* 159.3 → 57.2, 159.3 → 103.2)
13. NDnBA
(*m/z* 159.3 → 103.2, 159.3 → 57.2)
14. NDBzA
(*m/z* 227.2 → 91.1, 227.2 → 181.2)

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