



## Mometasone Scalp Application – BP 2021

These chromatograms are provided for information only as an aid to analysts and are intended as guidance for the interpretation and application of BP monographs.

Typical chromatogram for the Identification test for Mometasone Aqueous Nasal Spray by Thin Layer Chromatography as published in BP 2021.

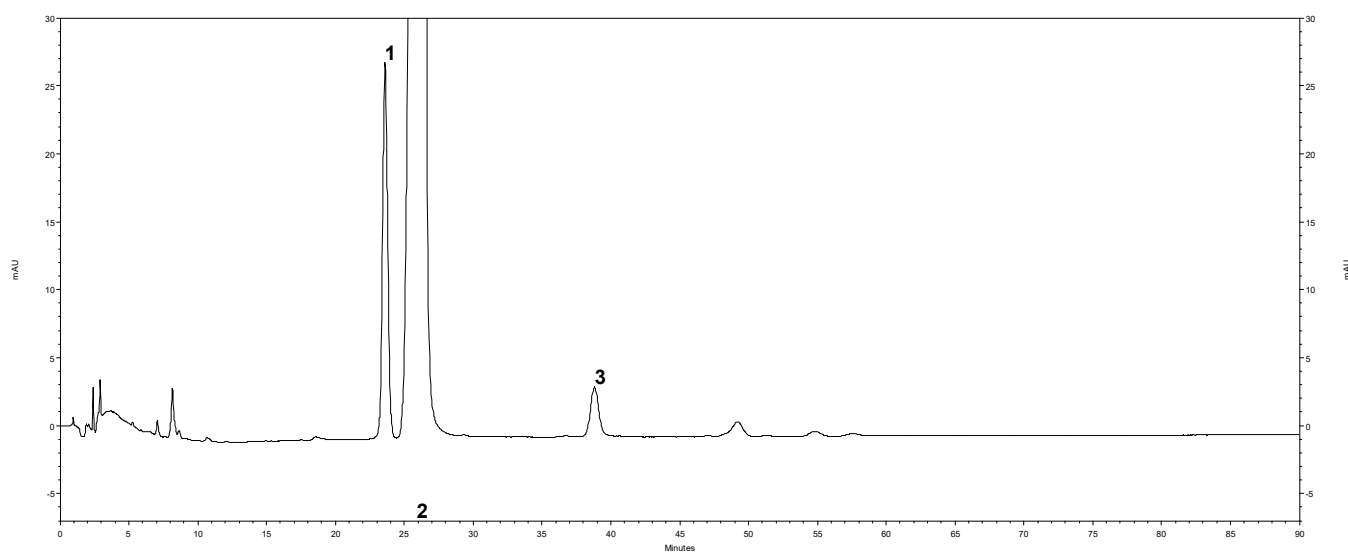


- 1 Blank
- 2 System suitability solution
- 3 0.0125 % w/v mometasone furoate standard solution
- 4-6 Scalp application 0.0125 % w/v solution

|                       |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| TLC plate             | Merck TLC silica gel 60 F254 plate (20 cm × 20 cm)                              |
| Plate preconditioning | N/A                                                                             |
| Diluent               | Methanol (80%)                                                                  |
| Mobile Phase          | Acetonitrile: methanol: ethyl acetate: toluene (3.1: 10.2: 25.5: 61.2, v/v/v/v) |
| Mobile Phase volume   | 100 mL                                                                          |
| Band application      | 3 mm band size with a spotting volume of 20 µL                                  |
| Chamber saturation    | Minimum 60 minutes at room temperature                                          |
| Development           | 150 mm                                                                          |
| Development time      | 43 minutes                                                                      |
| Drying time           | 1 minute in a current of warm air                                               |
| Derivatisation        | N/A                                                                             |
| Visualisation         | Developed plate examined under UV light (254 nm)                                |



Typical chromatogram for solution (3) in the Related Substances and Assay tests for Mometasone Scalp Application as published in BP 2021.



Peak ID: 1: Impurity C; 2: Mometasone; 3: Impurity J

|                  |                                                                                            |
|------------------|--------------------------------------------------------------------------------------------|
| Column           | : Symmetry C18 (250 mm x 4.6 mm, 5 µm)                                                     |
| Method Ref.      | : Related Substances and Assay for the Mometasone Scalp Application monograph from BP 2021 |
| Mobile Phase     | : Acetonitrile: water (50: 50, v/v)                                                        |
| Diluent          | : Acetonitrile: solvent A (45: 55, v/v).                                                   |
| Solvent A        | : Acetic acid: acetonitrile: water (0.1:50:50, v/v/v)                                      |
| Flow rate        | : 1.0 mL/min                                                                               |
| Column Temp      | : 25 °C                                                                                    |
| Injection Volume | : 20 µL                                                                                    |
| Detection        | : 254 nm                                                                                   |