



For the attention of:

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Test carried out: Study to determine the reduction of known odour compounds by the interaction with the Airopure product. The known odours studied are; Hydrogen sulphide

Samples:

- Airopure

Description of analytical method

Equipment used: Gas chromatography / Mass spectrometry (Agilent GC 7890A /5975C MSD, GERSTEL MPS), Headspace injection.

Preparation of sample:

The samples were prepared at a concentration of equimolar proportions (10ppm for each compound) in water and/or DMSO. The different solutions were stored at 4°C. The resulting solutions were analysed after 1 hour.

Headspace parameter

Temperature incubation: 40°C

Incubation time: 1800 s

Instrument parameters:

Volume injection 750µl

T°C injector : 320°C

Carrier Gas Helium 1 ml/min

Mode Splitless

Oven GC:

T°C initial 30°C (during 5min) to 60°C (rate 5°C/min), then 25°C/min until T°C final 300°C.

T°C Auxiliaire : 280°C

Column used: DB624 L 30m x 0.25mm id x 0.25µm df.

MS Conditions:

Ionisation method EI+ in SCAN and SIM mode. We operated for the qualitative analysis in SIM mode.

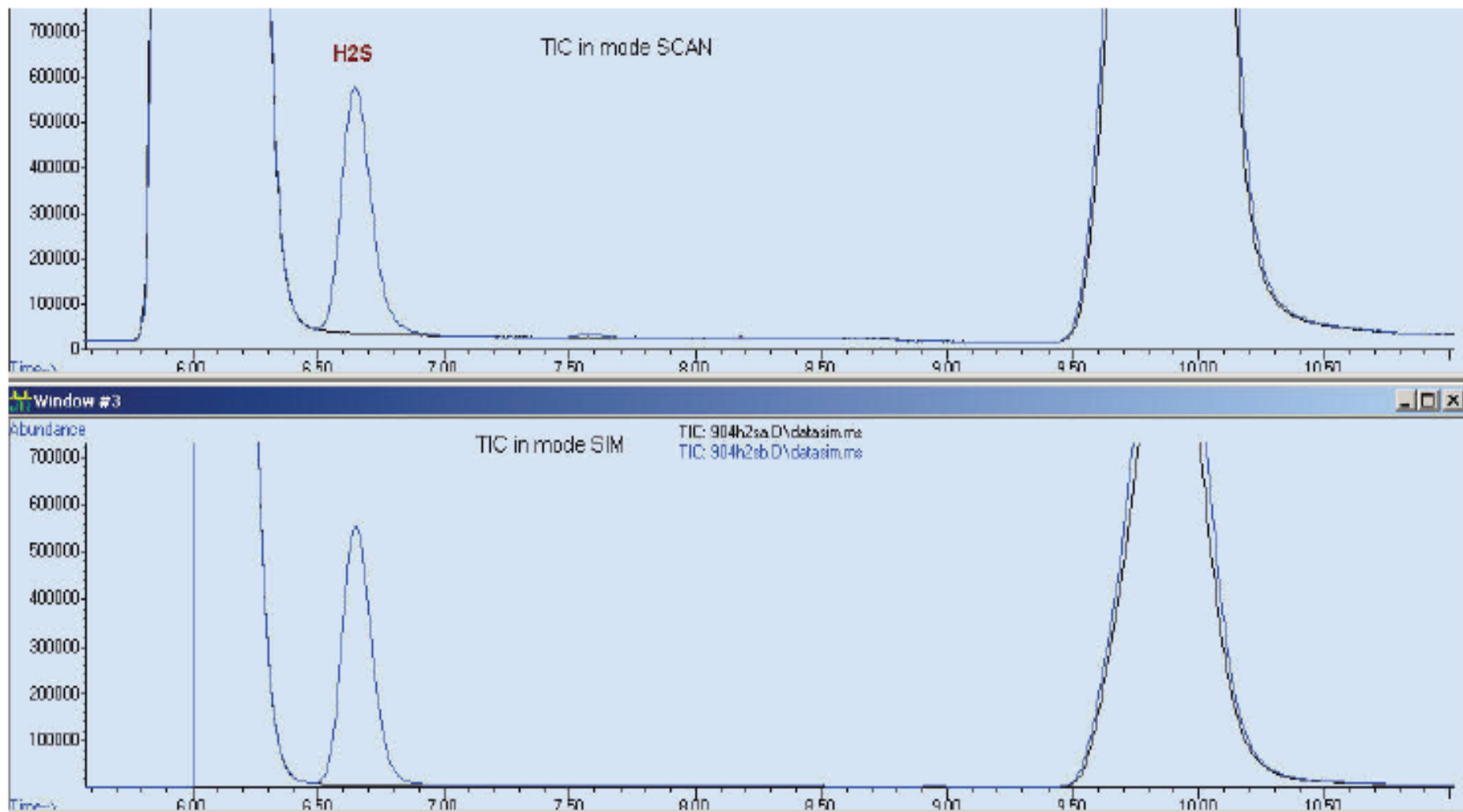
RESULTS

Hydrogen Sulphide (H₂S)

Cf. chromatogram in annex A

The peak associated with the hydrogen sulphide does not appear to present in the sample containing the Airopure product, it can therefore be concluded that at this level the product has completely eliminated the hydrogen sulphide.

ANNEX A: chromatogram of H2S



Chromatogram in black = sample + solution of H₂S (concentration équimolaire)

Chromatogram in Blue = solution of H₂S at 10ppm

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ITA specializes in the safety assessment of industrial and household products and specializes particularly in cosmetics where the company has an established reputation as a leader in the field. A dedicated and experienced staff in Leicester is supplemented by expert consultants offering our customers the benefit of over 150 years combined experience in Product Safety, with backgrounds in toxicology, cancer research, product development, pathology, environmental management and quality assurance.

The work of ITA is governed by legislation that requires that, in the case of cosmetics the products are safe for purpose and for industrial and household chemicals, that they are correctly packaged and labelled. ITA's opinion is sought by government departments, Trading Standards, and industrial clients. As well as carrying out product assessments, ITA staff act as expert witnesses in litigation involving a range of cases including occupational health issues and personal injury and serve on industry committees as experts in developing standards for toys and cosmetics.

Within the EU, Household and Industrial Products are subject to the Dangerous Substance Directive (67/548/EEC as amended) and the Dangerous Preparations Directive (1999/45/EC as amended). Both directives require manufacturers to be able to supply a Material Safety Data Sheet (MSDS) as per the Data Sheet Directive (2001/58/EC). Regulation (EC) No 648/2004 further covers Detergents and sets out specifications for the labelling of such items along with the necessity to provide Ingredient Datasheets.