

# PRODUCT NOTE

## Feasibility Study ●

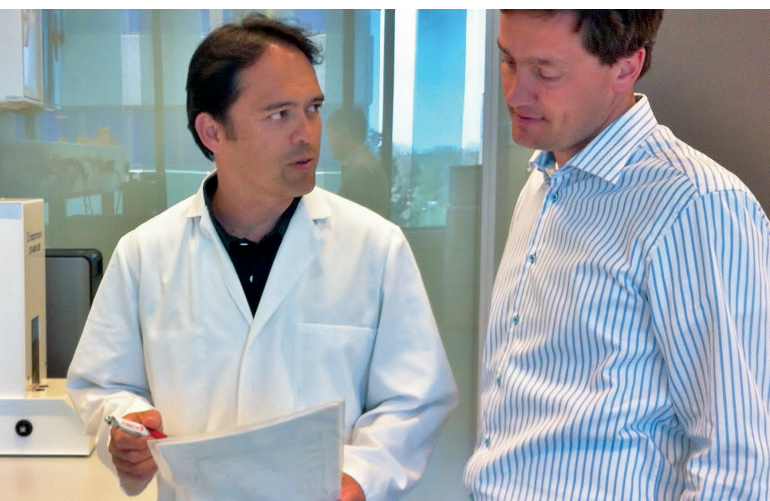


### OBJECTIVE OF A FEASIBILITY STUDY:

- When purchasing a FMS-Headspace Analyzer, the primary objective of a feasibility study is to determine if a headspace measurement on your product container is possible. In some cases, certain variables, including liquid product fill level, powder product adherence to the vial wall, and glass type may present additional challenges.
- When organizing a Measurement Services Study, a feasibility study is valuable to determine if measurements can be made successfully with the existing FMS-Headspace Analyzer Instruments and change parts in the LIGHTHOUSE Measurement Services Lab. A Feasibility Study can also help guide the development of a future study plan.

### BENEFITS OF DOING A FEASIBILITY STUDY:

- A project's potential for success is evaluated.
- Tailored advice from LIGHTHOUSE Application experts is given regarding your headspace analysis needs.
- You receive a Feasibility Study Report containing the study outline, results, and recommendations for future studies.



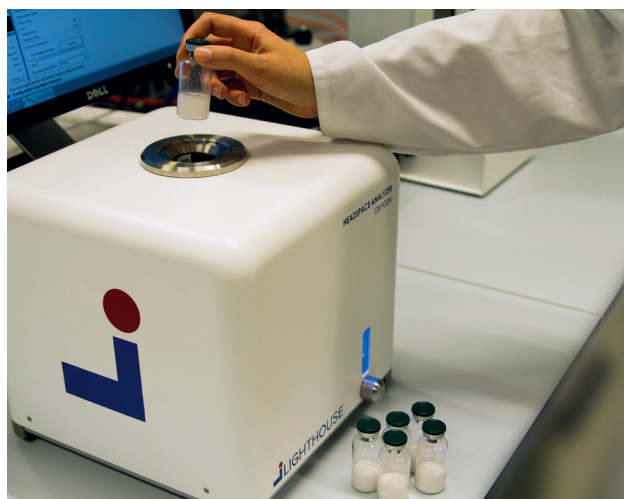
### STUDY REQUIREMENTS:

Phase 1: Theoretical assessment Prior to setting up a Feasibility Study, a theoretical assessment is done. You will be asked to give the following container information:

- Vial drawing with dimensions (i.e. outer diameter, wall thickness, etc.)
- Product type (liquid, lyo, etc.)
- Exact product fill levels
- Headspace conditions (headspace pressure and gas composition)
- Glass type and colour
- A photo of the vial
  - Use a ruler or place the container in front of the grid paper on the back-side of this brochure when taking a picture. Make sure the container wall touches the grid paper.
  - If limited headspace is present, take a picture of the container being inverted.

## PHASE 2: FEASIBILITY STUDY

If a measurement is likely to be feasible based on the theoretical assessment, you will be asked to send 3-5 samples per product to the LIGHTHOUSE Measurement Services Lab. Fill in the Sample Submission Form (SSF) and include a Material Safety Data Sheet (MSDS) if your vials contain a product. Both documents should be included in the sample shipment.



## WHAT TO EXPECT:

When LIGHTHOUSE receives all samples, with the required documents, the study will begin. The feasibility report will be sent to you within 2-3 weeks after LIGHTHOUSE receives all required input. For any unexpected events or results you will be contacted by a LIGHTHOUSE representative.

## A FEASIBLE MEASUREMENT:

A measurement is feasible when the headspace available in the cylindrical part of container is sufficient. See below examples:



*A. Feasible*



*B. Not feasible*

USE A RULER OR PLACE YOUR CONTAINER IN FRONT OF THIS GRID PAPER WHEN TAKING A PICTURE.  
IF LIMITED HEADSPACE IS PRESENT, TAKE A PICTURE OF THE CONTAINER BEING INVERTED.

Please contact us or visit our website for more information: [www.lighthouseinstruments.com](http://www.lighthouseinstruments.com)

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