

Headspace Gas Analysis for Pharmaceutical Packaging

The purpose of **CD Formulation**'s headspace analysis tests for pharmaceutical packaging is to detect the residual gas content in pharmaceutical packaging and to adjust the packaging process accordingly. The residual gases inside the package should not be disregarded at the end of the packaging process. It is very difficult to control and change the gas content inside the package from the end of filling until the product is opened and used. The use of barrier packaging materials can only prevent the gas from entering/leaking out of the packaging material, but cannot eliminate the oxygen and other gases already inside the package (excluding the case of adding deaeration technology to the package). If the content of residual gas exceeds the maximum concentration required for product preservation, no matter how good the high barrier material and how well sealed packaging form can not meet the shelf-life requirements of the product. Therefore, it is necessary to detect the residual gas content in the package and adjust the packaging process accordingly.



Our Services

Residual gases as well as product adsorbed gases can be obtained by testing the headspace of the packaging-detecting the gas composition gathered at the top of the packaging-only with a difference in detection time. If residual gases are to be detected, this should be done immediately after the end of the packaging process; however, if product adsorbed gases are to be detected, this should be done after the

end of the packaging process and several tests should be performed and gas concentration profiles should be plotted as the product is present for a longer period of time, as gas desorption from the product surface is also a slow process.

CD Formulation tests the packaging headspace with high efficiency and our professional laboratory operators can use the test results to obtain the components of the gas mixture and whether the quality requirements are met. According to our analysis software, all test data are traceable. We can develop different test criteria depending on the customer's product setup.

Why Choose Us?

We offer a full range of services, providing our customers with a dedicated, highly qualified team to ensure that all of our customers' respective needs are met quickly and affordably.

We provide customers with a wide range of products and services, including packaging testing services, preformulation and formulation related services.

At all times, we have a professional, courteous and friendly staff who are ready to assist our customers with their needs and go above and beyond expectations.