

APPARATUS FOR THE LIMIT TEST FOR ARSENIC

International pharmacopoeial versions and custom-made glass apparatus

Landgraf Laborsysteme HLL manufactures glass apparatus for limit tests for arsenic in its own glassblowing workshop. In addition to the regularly documented HLL versions, apparatus has already been manufactured according to European, Japanese, Chinese and United States pharmacopoeial editions and to customer-specific requirements.



2421A2018

European Pharmacopoeia, Method A



2421A

classic Gutzeit apparatus



L51622010

Japanese version



L51622025

Chinese version



L50529001

former USP <211> version

MANUFACTURE TO A DOCUMENTED REFERENCE

The designs differ in gas routing, absorption vessel, closures and evaluation method. Before manufacture is repeated, the pharmacopoeial edition used by the customer, the specific method and the required apparatus geometry are clearly defined.

EUROPEAN VERSIONS

Two documented HLL versions with separate product brochures

Ph. Eur. 9.4



APPARATUS ACCORDING TO EUROPEAN PHARMACOPOEIA - 2421A2018

Normative reference: European Pharmacopoeia 9.4, Section 2.4.2, Arsenic, Method A

Glass set for the limit test for arsenic according to Method A. The design of the glass apparatus is based on Figure 2.4.2.-1 of the cited edition. The apparatus comprises a 100 mL conical flask, a gas delivery tube, a delivery tube bent twice at right angles and a test-tube receiver.

Detailed individual product brochures are available in German and English.

Article No.: 2421A2018

BP 2012 / WHO 2.2.5



CLASSIC GUTZEIT APPARATUS - 2421A

Literature and method reference: British Pharmacopoeia 2012 and WHO International Pharmacopoeia 2.2.5

Classic glass apparatus for the visual limit test for arsenic, with flat-ground joints and a metal clamp. The apparatus passes the generated gas through a section containing lead(II) acetate material to mercury(II) bromide paper. The resulting stain is compared with a reference.

Detailed individual product brochures are available in German and English.

Article No.: 2421A

INTERNATIONAL AND CUSTOM-MADE VERSIONS

JP XVIII



JAPANESE VERSION

Article No.: L51622010

Documented reference: Japanese Pharmacopoeia XVIII, General Test 1.11, Figure 1.11-1.

The design comprises a generator vessel, a gas delivery tube, a separate absorber tube and the specified closure and connection components.

Before manufacture is repeated, the current edition to be applied by the customer is checked.

ChP 0822



CHINESE VERSION

Article No.: L51622025

Documented original reference: Chinese Pharmacopoeia, Chapter 0822, Method 1, Gutzeit method.

The historical description specifies a 100 mL flask, an NS 29/32 ground joint and a threaded adaptor with screw cap.

Before manufacture is repeated, the applicable edition and the specific apparatus illustration are checked.

former USP <211>



UNITED STATES VERSION

Article No.: L50529001

The HLL apparatus was manufactured as a glass apparatus according to the former version of USP chapter <211> "Arsenic".

The documented apparatus comprises an arsine generator flask, a gas purification unit and an absorber tube. The gas is absorbed in silver diethyldithiocarbamate solution; the red complex can be evaluated visually or photometrically.

Before manufacture is repeated, the USP edition, procedure and apparatus version are specified.

NOTE ON PHARMACOPOEIAL EDITIONS AND CUSTOM MANUFACTURE

Pharmacopoeial methods and apparatus descriptions may change. The international versions shown document designs previously manufactured by HLL. Before an order or repeat manufacture, the pharmacopoeial edition, method and required apparatus version must be clearly specified and checked. Custom-made apparatus is manufactured to an agreed drawing or a supplied test method.