

# APPARATUS FOR THE LIMIT TEST FOR ARSENIC

## Method A

Glassware set for carrying out the arsenic limit test in accordance with Method A

Normative reference: European Pharmacopoeia 9.4 · Section 2.4.2 · Method A



HLL glassware set 2421A2018

## PRODUCT AND APPLICATION

The HLL apparatus for the limit test for arsenic, Method A, Article 2421A2018, is a complete glassware set for carrying out the arsenic limit test. It is used in pharmaceutical and chemical analytical laboratories to determine whether the arsenic content of a sample exceeds the specified limit.

## APPLICATION

During the test, arsine is generated from the prepared sample under the prescribed reaction conditions. The gas is passed through the apparatus and collected in a reagent solution. The resulting colour intensity is compared with an arsenic standard solution prepared at the same time.

## DESIGN

The design of the glass apparatus is based on Figure 2.4.2.-1 of the stated edition.

| METHOD                         | FLASK              | MATERIAL                                    | ARTICLE                    |
|--------------------------------|--------------------|---------------------------------------------|----------------------------|
| Arsenic limit test<br>Method A | 100 mL<br>NS 29/32 | Clean Save laboratory glass<br>DIN ISO 3585 | 2421A2018<br>Glassware set |



## CONSTRUCTION, TECHNICAL DATA AND PRODUCT VERSIONS

### CONSTRUCTION

#### 1. Reaction flask

The 100 mL flask holds the prepared reaction mixture. It is connected by means of a standard ground-glass joint NS 29/32.

#### 2. Gas delivery and purification tube

The ground-glass component closes the reaction flask, conveys the generated gas out of the flask and accommodates the material specified by the test method for removing interfering gaseous substances.

#### 3. Delivery tube

The glass tube, bent twice at right angles, conveys the gas from the reaction flask to the receiving test tube.

#### 4. Test tube and support base

The free end of the tube is immersed in the reagent solution contained in the test tube. The white support base holds the test tube securely.

### PRINCIPLE OF THE LIMIT TEST

1. Prepare the sample in accordance with the applicable test procedure.
2. Prepare the reaction mixture in the 100 mL flask.
3. Generate arsine under the prescribed conditions.
4. Pass the gas through the purification tube into the receiving test tube.
5. Compare the colour intensity of the test solution with the standard solution.

### SCOPE OF SUPPLY

Glassware set including test tube and white support base.

### TECHNICAL DATA

| Feature             | Specification                                       |
|---------------------|-----------------------------------------------------|
| Product designation | Apparatus for the limit test for arsenic, Method A  |
| German designation  | Apparatur zur Grenzprüfung auf Arsen nach Methode A |
| Article No.         | 2421A2018                                           |
| Normative reference | European Pharmacopoeia 9.4, Section 2.4.2, Method A |
| Flask capacity      | 100 mL                                              |
| Flask joint         | NS 29/32                                            |
| Material            | Clean Save laboratory glass DIN ISO 3585            |
| Delivery form       | Glassware set                                       |
| Documentation       | 2421A2018-Arsen-Apparatur                           |

### RELATED PRODUCT VERSIONS

Independent apparatus for further pharmacopoeias:

**L51622010** Japanese Pharmacopoeia

**L51622025** Chinese Pharmacopoeia

**L50529001** United States Pharmacopoeia

**2421A** Pharmacopoeia 2.4.2 A

### SAFETY NOTE

Highly toxic arsenic compounds may be generated during the test. The procedure must be carried out only by qualified personnel under suitable laboratory and safety conditions. The complete test procedure, the safety data sheets and the site-specific protective measures are authoritative.