KAVALIER

Product data sheet

No. 28/2016

Issuer's name: **KAVALIERGLASS, a.s.**

Issuer's address: Křížová 1018/6, Praha 5
office: Sklářská 359, 285 06 Sázava, Czech Republic

Object of the declaration: **REAGENT BOTTLES**

Product code and description:	**2070 clear bottles** **2070 H brown bottles**								
Capacity/ ml :	**50**	**100**	**250**	**500**	**1000**	**2000**	**5000**	**10000**	**20000**
Purpose of use:	**laboratory bottles**								
Material specification:	**SIMAX® - Borosilicate glass 3.3**								
Eur. Ph., USP, JP	**Type I**								

The object of the certificate described above is in conformity with the requirements of the following standards and regulations:

Glass characteristics:

- **ISO 3585 Borosilicate glass 3.3 –Properties.**

Technical standards for products:

- **ISO 4796 Laboratory glassware. Bottles**

No heavy metals (lead, cadmium, mercury and hexavalent chromium):

- **Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (ROHS)**

Glass containers for pharmaceutical use:

- **European Pharmacopoeia 7, USP and JP - Glass Type I**

Additional information:

Characteristics of material SIMAX® glass:

- **Eur. Ph., USP, JP** **GLASS Type I**
- **acid resistance** **Class I (to ISO 1776)**
- **hydrolytic resistance** **Class I (HGB 1 to ISO 719, HGA 1 to ISO 720)**
- **alkali resistance** **Class 2 (to ISO 695)**
- **The heavy metal contents are below the limit:**

Substance	Maximum Value
Lead	0,1% by weight (1000 ppm)
Mercury	0,1% by weight (1000 ppm)
Cadmium	0,01% by weight (100 ppm)
Hexavalent Chromium	0,1% by weight (1000 ppm)

Laboratory bottles are made of the borosilicate glass 3.3. featuring excellent chemical properties and a high thermal resistance.

They are chemically resistant and stable.

The bottles can be sterilized.

More info: www.kavalier.cz

Handling instructions:

After completion with a plastic pouring ring, they enable liquids to be easily poured out.

All bottles of the volume 100 ml and higher have the same thread size, the screw cups can be mutually interchanged.

a) Freezing of substances

Freeze the bottle in a skew position (about 45 °) and filled up to max. 3/4 (volume expansion).
Temperature limit: – 40 °C as plastic lids and pouring rings do not resist to lower temperatures.

b) Thawing of substances

Thawing of a frozen material can be carried out by submerging the bottle into a liquid bath (temperature difference should not exceed 100 °C). The frozen material will thus be heated up uniformly from all sides and the bottle will not be damaged. Thawing can also be accomplished slowly from the top so that the surface is first liquefied and the material can expand.

c) Sterilization

The bottle, pouring ring, and screw cup can be sterilized.
During sterilization, the screw cup can only lightly be fitted on the bottle (screwed with max. one rotation). Pressures are not equalized when the bottle is closed. The pressure difference created in this way can result in the bottle breakage.

d) Pressure resistance: the laboratory bottles are not suitable for works under pressure or vacuum.

The producer declares that the products are safe when used in usual and proper way.

The producer has installed the Quality Assurance System according to ISO 9001 and thus guarantees that all products delivered to the market are in full conformity with the technical documentation and with all fundamental requirements to such products.
Certificate No. 04 100 940602 issued by TÜV CERT, Certification Body at TÜV NORD CERT GmbH.

The product data sheet is issued for the customer: **BC, Selb**

Sázava, 15.2.2016 *Ing. Milena Zvejšková*

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Place and date of issue *Quality manager*