

Certificate of Quality



VWR® BIGTOP™ MICROCENTRIFUGE TUBES, POLYPROPYLENE

As per the manufacturer, the below product meets the following criteria:

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VWR Catalog Number	20170-349
European Article Number	N/A
Lot Number	746C7-7255
Description	VWR TUBE ASSRTD 1700UL PK500
Date of Manufacture	November 17, 2017
Date of Expiration	2021-11
Country of Origin	Made in USA

Quality System Compliance

The product conforms to written material specifications and was manufactured under the manufacturer's registered and audited ISO 9001 quality system, and underwent lot testing as outlined in the manufacturer's laboratory procedures. These products come with the highest standard of quality assurance.

QC Testing

Each lot of item was produced in a tightly controlled environment and subjected to the manufacturer's rigorous testing and performance procedures. The products meet all stated standards for precision, clarity, warp, centrifugation and freedom from contamination.

Product Specifications

Material: Tube Material: Polypropylene

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Free of Bisphenol A (BPA), phthalates and cytotoxic effects. Plastic resins used in product manufacturing have been tested for heavy metals using the prescribed USP method and confirmed to have levels lower than 1 PPM. Resins are USP Class-VI certified, RoHS, FDA regulation CFR 21, and are free of Substances of Very High Concern (SVHC),

REACH compliant, and are FDA approved for food contact.

Non-Pyrogenic Statement: Product samples are exposed to endotoxin-free water and the resulting extraction fluid is tested

for contamination using the kinetic turbidimetric Limulus Amoebocyte Lysate (LAL) assay protocol and USP guidelines. All products tested must display less than $0.05\ EU/ml$ to be

certified free of endotoxin.

ATP Assay: Product sample surfaces are tested for the presence of Adenosine triphosphate (ATP) using a

controlled bioluminescence reaction to detect contamination. Luminescence data is compared to results generated by ATP-free surfaces and surfaces with known amounts of ATP as a positive control. The relative light units result must indicate less than 2X10⁻¹² mg/ul of ATP for

the product to be certified as ATP free.

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DNase & RNase Free:

Product samples are exposed to nuclease-free water and the resulting extraction fluid is tested for nuclease activity on commercially available 7.5 kb Poly(A) tailed RNA (1ug) and HindIII-digested DNA (1ug) with a one hour 37°C incubation in appropriate buffers. Results are visualized on an agarose gel with appropriate positive and negative controls. Extraction fluid samples must show no degradation of the nucleic acids by the extraction fluid has occurred for the product to be certified as RNase-free and DNAse-free.

BSE/TSE Statement:

(Bovine Spongiform Encephalopathy/Transmissible Spongiform Encephalopathy)

The product above is free from and manufactured from materials that do not contain any raw materials or substances derived from animal origin as defined in EC Directive 97/534/EC and EC

Directive 76/768/EEC and Amendment 419 Annex II.

The manufacturer does not store any products of animal origin, including animal proteins, in any

manufacturing areas of their facility or warehouses.

Latex Statement:

No Latex was used in the manufacturing of the product. This also includes all the packaging and

shipping materials used in the production of all items.

The only time the product or packaging may come in contact with Latex would be from the Latex gloves that production employees are required to wear for the purpose of clean handling and to

avoid biological contamination of the products.

Disclaimer: VWR states that this declaration will not discharge the user from his obligation to ensure the product is suitable for the intended use.

This Certificate was automatically generated and is valid without a Signature.

Date: June 27, 2018