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UTTD basic Tissue Solution

/// Data Sheet

Microbiological and molecular biological analysis of patient samples:

The crushing and disruption of tissue, cartilage and bone samples is an essential step before the actual microbiological and molecular biological analysis of patient samples.

The challenges in this preoperative step are to crush the sample homogeneously and not to contaminate the sample on the way to analysis.

With the ULTRA-TURRAX® Tube Drive, IKA offers a powerful, universal shredding drive that is operated in combination



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with patented disposable plastic containers.

The sample containers specially developed for in-vitro diagnostics are available in single or double sterile packaging and are already filled with 5 ml of 0.90% saline solution.

The crushing of the sample is carried out with 10 stainless steel balls contained in the tube, which are set in motion with the help of the drive via a tumbler with up to 3000 revolutions. The accelerated balls break up the sample or reliably detach tissue from the bone. Any germs that may be present pass into the liquid phase (NaCl solution).

The sample material can be introduced into the sterile sample container directly in the or after opening the lid. The subsequent transport to the laboratory takes place in a hermetically sealed container.

In the microbiological laboratory, the tube is placed directly on the drive and the sample is crushed. This eliminates the need for additional mechanical processing. A risk of cross-contamination can thus be ruled out.

The samples can then be taken via the pierceable membrane in the sample lid.

The lockable disposable sample tubes are transport containers, comminution containers and storage all in one. They significantly reduce the cleaning effort and systematically rule out cross-contamination. Users benefit from reduced handling costs and a reduced number of incorrect diagnoses.

The disposable tubes BMT-20-S-IVD included in the package are a In vitro diagnostic product according to Directive 98/79/EG and manufactured according to ISO 13485:2016.

Approved for all EU countries.

Important note:

The maximum processing time for the tubes is 1 minute using an automated process similar to the ULTRA-TURRAX® Tube Drive.

If the processing time is longer, the mechanical load can become too great and leaks can occur. The process must be validated by the customer.

Please also note the operating instructions for the ULTRA-TURRAX® Tube Drive.

Features of the tubes:

- Volume [mL]: 20
- Working range [mL]: 5 - 15
- Functional unit: 10 steel balls, 5mm
- Membrane cover: yes
- Sterile: yes
- IVD marking: yes
- Packaging unit [pcs]: 50
- Applications: dry grinding, cell disruption, wet grinding
- Miscellaneous: incl. 5 mL NaCl solution



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Scope of delivery

- ULTRA-TURRAX® Tube Drive
- BMT-20-S-IVD.50 Ball milling tube, sterile, IVD label, 20 ml



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Technical Data

Motor rating input [W]	20
Motor rating output [W]	17
Speed display	scale
Speed range [rpm]	300 - 6000
Viscosity max. [mPas]	5000
Speed deviation [%]	10
Speed adjustment	stepless
Noise without element [dB(A)]	50
Process type	batch
Dimensions (W x H x D) [mm]	100 x 40 x 160
Weight [kg]	0.75
Permissible ambient temperature [°C]	5 - 40
Permissible relative humidity [%]	80
Protection class according to DIN EN 60529	IP 20
Voltage [V]	100 - 240
Frequency [Hz]	50/60
Power input [W]	20
DC Voltage [V=]	24
Current consumption [mA]	800