

# FD-Application FD-M-102

Catchwords: Microbiology, agar, fungal fruiting bodies, sample preparation analytics, extraction, metabolites, flask-drying

## Lyophilization of agar (from cultured plates) and mushroom fruiting bodies to extraction with ethyl acetate

### Application:

Target: Extraction of secondary metabolites etc. With ethyl acetate to prepare for the analysis.

Removal of water from the agar and the mushrooms fruiting bodies, since the y otherwise passes during the extraction with ethyl acetate in tracks and creation a lager surface area

### Process technology (summary):

• Product designation	Mushroom fruiting bodies, agar (from plates after culturing)
• Type of solvent, ca. percentage of dry matter	Contains > 90% water,
• Type of vessel, number of samples, volume per sample	100 ml-round bottles, ca. ¼ filled
• Type of machine / configuration	ALPHA 1-2 LDplus, acrylic glass chamber, with shelves and manifold for flask-drying
• Freezing (place, range of temperature, freezing point)	-80°C- freezer 10-20 min or in liquid nitrogen
• Process flask-drying /inside /outside /Epsilon*	Flask-drying
• Vacuum main-drying (final vacuum or controlled)	0,081 mbar, final vacuum
• Temperature of shelf, program mode	n.b., no program
• Time duration of main drying (T <sub>sf</sub> /t)	2 days
• Final-drying? Vacuum?	no

### Result and comments:

#### \*explanation

Process inside	(Freezing and) drying inside the ice condenser chamber
Process outside	Freezing separately (e.g. freezer), drying outside the ice condenser chamber, e.g. acyclic chamber
EPSILON	Type of machine with rectangular product chamber, front loader