

## Centrifuge safety

QA

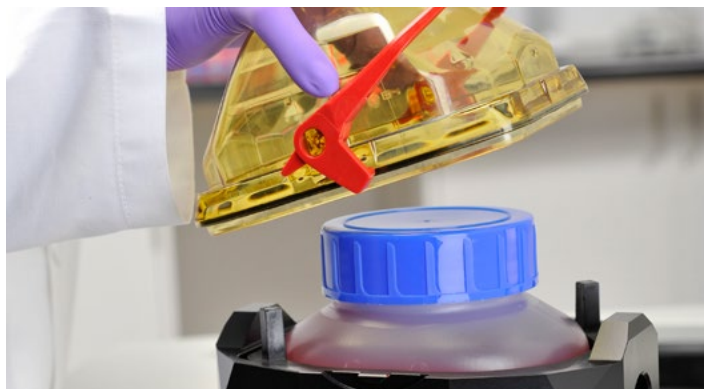
**How can I help improve safety and biocontainment in my laboratory when spinning pathogens or patient samples?**

Thermo Scientific™ ClickSeal™ Biocontainment Lids for Thermo Scientific™ Rotors are designed to help provide a secure and quick solution for biocontainment. Local safety rules can help regulate the processing of pathogens, or potential pathogens, and the protective measures that should be undertaken to help reduce the risk of Laboratory Acquired Infections (LAIs). These regulations may require the use of biocontainment lids on centrifuge rotors.

**Improve safety with certified<sup>1</sup> biocontainment**

Centrifugation is a key part in many clinical and scientific workflows in which pathogens or potential pathogens are processed. Certified by the National Institute for Health Protection, Porton Down, UK or TÜV NORD CERT GmbH, Germany, rotors with ClickSeal biocontainment lids are tested to help ensure that when used correctly, pathogens are safely contained in the event of a tube breakage, tube leakage, external tube contamination or over-fill contamination within tube and cap threads. This containment helps minimize the risk of pathogens being aerosolized into the lab environment, where they could be inhaled or spread, contaminating surrounding surfaces and equipment and posing a risk to lab personnel.

Sample containment is a key consideration for lab safety, in part due to the pressures that are exerted on sample tubes during centrifugation which can cause tube breakage or leakage. The high speed air movements within a centrifuge bowl can increase the risk of pathogens being aerosolized. Implementing correct levels of containment, as well as providing regular training and maintenance, help to minimize risk associated with high-risk sample processing.



ClickSeal biocontainment lids are glove-friendly and easy to use.

thermo scientific

1. Certified by the National Institute for Health Protection, Porton Down, UK or TÜV NORD CERT GmbH, Germany

# Containment levels

In today's busy laboratories, safety should be as easy to achieve as possible

1



High quality tubes should be used to help minimize the risk of tube failure and leakage and should always be spun within their rated force (RCF) and within their cycle limits. Correct size adapters should also be used to help minimize tube movement and provide proper support during acceleration and deceleration.

2



Seal the full rotor or bucket with a cover, preferably with transparent covers, allowing the tubes to be inspected and breakage or leakage identified prior to opening. Biocontainment systems should be independently certified by a testing agency.

3



For samples with the highest risk, an additional level of containment around the tube helps prevent cross contamination between tubes and can remove the need for sealing tapes or cling films. Also dual biocontainment helps provide easier, safer handling when transporting samples throughout the lab.

## ClickSeal lids

### One-handed sample protection

- Biocontainment sealing options for glove-friendly, one-handed open/close capability are ergonomically designed for both right and left-handed operations
- Easy operation for all laboratory users, helping eliminate multi-turn screw caps and complicated high pressure clips
- Biocontainment certification by National Institute for Health Protection, Porton Down, UK or TÜV NORD CERT GmbH, Germany
- Audible and visual closure cues enhance safety and security



# User training

## High speeds and centrifuge forces require attentive handling

### Training and safety checks

All personnel using a centrifuge should be trained on the safe operation, including correct loading of rotors, buckets and adapters to help prevent accidents. Additionally, it is important to understand the use of biocontainment lids and local procedures if an accident or leakage occurs. O-rings on these biocontainment lids are an integral part of the sealing and should be regularly

checked to help ensure they are in place, there is no damage or degradation and that they are cleaned and lightly lubricated regularly with grease. Centrifuges should also be regularly cleaned and maintained to help ensure continued safe operation.

### Rotors with optional ClickSeal biocontainment lids

List of rotors with ClickSeal biocontainment options				
Superspeed centrifuges	Large 4L general purpose centrifuges	Compact 1.6L general purpose centrifuges	Small benchtop centrifuges	Microcentrifuges
<ul style="list-style-type: none"> <li>Thermo Scientific™ BIOFlex™ HC Swinging Bucket Rotor</li> <li>Thermo Scientific™ BIOFlex™ HS Swinging Bucket Rotor</li> </ul>	<ul style="list-style-type: none"> <li>Thermo Scientific™ TX-1000 Swinging Bucket Rotor</li> <li>Thermo Scientific™ TX-750 Swinging Bucket Rotor</li> <li>Thermo Scientific™ M-20 Swinging Bucket Rotor</li> <li>Thermo Scientific™ MicroClick 18 x 5 and MicroClick 30 x 2 Fixed Angle Rotors</li> </ul>	<ul style="list-style-type: none"> <li>Thermo Scientific™ TX-400 Swinging Bucket Rotor</li> <li>Thermo Scientific™ TX-200 Swinging Bucket Rotor</li> <li>Thermo Scientific™ H-Flex 1 Swinging Bucket Rotor</li> <li>Thermo Scientific™ M-20 Swinging Bucket Rotor</li> <li>Thermo Scientific™ MicroClick 18 x 5 and MicroClick 30 x 2 Fixed Angle Rotors</li> </ul>	<ul style="list-style-type: none"> <li>Thermo Scientific™ TX-150 Swinging Bucket Rotor</li> <li>Thermo Scientific™ M10 Swinging Bucket Rotor</li> <li>Thermo Scientific™ MicroClick 18 x 5, MicroClick 24 x 2, and MicroClick 30 x 2 Fixed Angle Rotors</li> <li>Thermo Scientific™ 8 x 8 PCR Strip Fixed Angle Rotor</li> </ul>	<ul style="list-style-type: none"> <li>Thermo Scientific™ 24 x 1.5/2.0 mL Rotor</li> <li>Thermo Scientific™ 10 x 5 mL Rotor</li> <li>Thermo Scientific™ PCR 4 x 8 Rotor</li> </ul>

### Summary

Sample protection with Thermo Scientific ClickSeal biocontainment rotor lids, as well as regular training and maintenance, help minimize risk of LAIs associated with sample processing and contribute to the safety of lab personnel.



Find out more at [thermofisher.com/centrifuges](https://thermofisher.com/centrifuges)

**For Laboratory Use. It is the customer's responsibility to ensure that the performance of the product is suitable for customers' specific uses or applications.** © 2024 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified. **EXT6789 0424**