

Shipping of samples - Dangerous goods legislations

Correct packaging and safe transport of biological samples depends on the potential hazard (infectivity/ pathogenicity) of the contained pathogens.

Biological samples are:

Blood, secretions, tissues and tissue fluids, feces and urine samples, organs and parts of organs, animal carcasses and parts of animal carcasses

Classification and Labelling

According to the **European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)**:

Note: The sender is responsible for the compliance of the ADR regulations!

1) EXEMPT ANIMAL SPECIMEN:

- Sample only contains pathogens with **minimal risk for infection**
- Labelling on the outer package:

„FREIGESTELLTE VETERINÄRMEDIZINISCHE PROBE“
or
„EXEMPT ANIMAL SPECIMEN“
(Font height \geq 6 mm)

1.1) Formalin fixed samples:

- Samples containing 4 to 10 % formalin are **not potentially infectious** and therefore are no dangerous goods.
- According to CLP-regulation the **formalin** tube has to be labelled with the pictograms GHS 08, GHS 07 and the signal word „Caution“!



2) BIOLOGICAL SUBSTANCE, CATEGORY B:

- Samples containing pathogens with a **potential risk for infection** (category B pathogen)
- Category B pathogens are considered to be **dangerous goods** and have to be labelled clearly visible and permanently on the outer package:



„BIOLOGISCHER STOFF, KATEGORIE B“
or
„BIOLOGICAL SUBSTANCE, CATEGORY B“
(Font height \geq 6 mm)

Rhomb lines \geq 2mm,
edge length each \geq 50mm,
Font height \geq 6 mm

Packaging

1) EXEMPT ANIMAL SPECIMEN and samples fixed in 4 to 10 % formalin:

- shipping in a double leak-proof inner container and a sufficiently strong outer package (2.2.62.1.5.6 of ADR („P650 light“))
- for liquid samples a sufficient amount of absorbent material between primary and secondary container is needed

2) BIOLOGICAL SUBSTANCE, CATEGORY B, UN 3373 (Packaging instruction P650):

Packaging contains of at least 3 parts:

- primary container
- secondary container
- outer package

- for liquid samples primary and secondary containers have to be waterproof
- leakage of content should not lead to impairment of padding material or outer package
- absorbent material between primary and secondary container in sufficient amount to completely absorb the content of the primary container
- suitable padding material between secondary container and outer package
- package has to resist impacts of normal transport conditions

Example for correct packaging and labelling of Category B material (UN 3373) with a leak-proof inner package (primary container) (a), suction insert (b), leak-proof secondary container or plastic bag (c) and outer package with correct labelling (d). Further, a cover letter and a cool pack should be included.

