

■ ■ ■ **Must go to laboratory.** ■ ■ ■
Important Information
for the Recipient of Microorganisms!



Handling and Safety Information

All consignments containing microorganisms must be unpacked in an appropriately equipped laboratory. Microorganisms, including genetically engineered strains, may be pathogenic to humans, animals or plants. Therefore, cultures must be handled by, or under the supervision of persons trained and competent in microbiological techniques. Before handling the organism, the user has to inform himself of national regulations governing work with microorganisms. Cultivation and handling is restricted to laboratories meeting the containment requirements laid down by the national authorities. DSMZ delivers only biological material which can be handled up to containment level 2. Please see detailed information below:

1. Identification of the Biological Agent

- Microbial culture, inoculum for preparing cultures, for laboratory use only!
- Species name and strain number as given on delivery note
- Form of supplied material: freeze-dried or actively growing culture

2. Hazards Identification: Risk Assessment and Laboratory Containment Level

- Each microorganism delivered with this consignment is classified according to German legislation (Biostoff-Verordnung). If a strain is allocated to Risk Group 2 (equivalent terms are Hazard Group or Biological Safety Level), this information is given on the DSMZ homepage www.dsmz.de under the respective species information and on the delivery note.
- Required laboratory containment level: corresponds to the Risk Group of the microorganism. Observe national regulations.
- Apart from infectivity/pathogenicity, genetically modified microorganisms are to be handled according to relevant national legislation and under contained use only.
- Toxin production, if known: see 7.
- Avoid all direct physical contact with the organism. Control dust (aerosols), skin and eye contact.

3. First Aid Measures

In case of contact, wash contaminated skin thoroughly with antiseptic soap and water. If wound contamination is suspected, seek immediate medical attention. In case of ingestion/inhalation, seek immediate medical attention. Inform medical practitioner of name of the microorganism.

4. Accidental Release Measures and Spillage/Environmental Precautions

- Decontaminate/sterilize/autoclave all material which might be in contact with the culture.
- Keep culture material away from drains, surface- and ground water and soil.
- If culture vial is accidentally broken, soak contaminated area with appropriate disinfectant.
- Broken glass has to be picked up with forceps.

5. Handling and Storage

- Ampoules/cultures must be opened and used by trained persons in a laboratory of appropriate safety level.
- Hints how to open ampoules with dried cultures are provided with this handout. Hints how to handle actively growing cultures are given with the strain specific data on our online catalogue on www.dsmz.de.
- All cultures delivered by DSMZ are for immediate use (see our conditions of delivery). Before use, store cultures in a cool, dark place.
- Please observe our Terms and Conditions www.dsmz.de/terms.html, in particular the restrictions concerning the distribution to third parties (section 7 of the Terms).

6. Exposure Controls/Personal Protection

Depends upon the Risk Group of delivered culture and is described in the respective containment level instructions (in Germany, see the Biostoff-Verordnung). Precautionary measures such as lab coat and, if required, protective gloves and glasses minimise worker's exposure.

7. Toxicological Information

See strain information as given in the DSMZ catalogue of strains (www.dsmz.de). For possible restrictions on handling and distribution of certain toxin producers see >Permissions/Restrictions. Information given by DSMZ on possible or known toxin production of any strain is not exhaustive! DSMZ does not perform toxicity tests with cultures.

8. Disposal

Sterilize all cultures before disposal.

Supplier:

Leibniz-Institut DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH,
 Inhoffenstraße 7 B
 38124 Braunschweig

The information contained herein is offered for informational purposes only and is based on the present state of our knowledge. Recipients of our microorganisms must take responsibility for observing existing laws and regulations. DSMZ accepts no responsibility for the accuracy, sufficiency, reliability or for any loss or injury resulting from the use of this information.

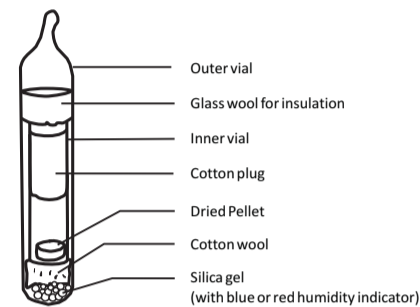
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Opening of Ampoules and Rehydration of Dried Cultures

Hints how to cultivate the received strains (medium, gas atmosphere, temperature) are given in our catalogue (<http://www.dsmz.de/catalogues/catalogue-microorganisms.html>). At this site you will also find FAQ, cultivation hints and video tutorials about handling of ampoules and cultures under aerobic or anaerobic conditions.

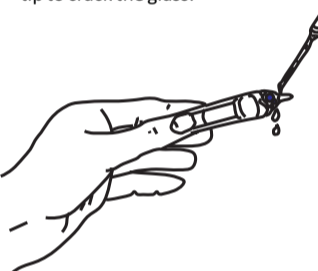
1. Remove the glass ampoule from the secondary packaging. Double vial preparation, sealed under vacuum:



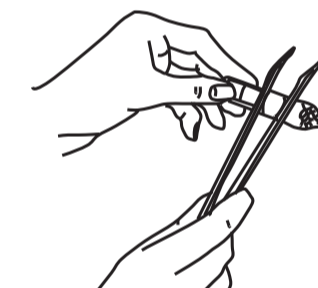
2. Wear protective glasses when opening ampoules! Heat the tip of the ampoule in a flame.



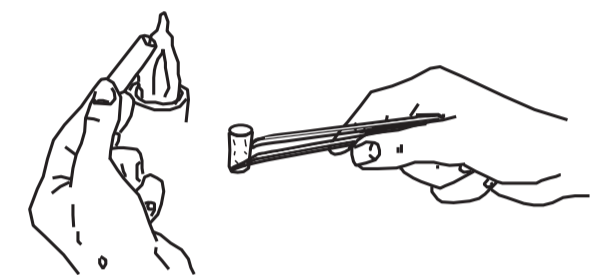
3. Place two or three drops of water onto the hot tip to crack the glass.



4. Carefully strike off the glass tip with an appropriate tool (e.g. forceps).



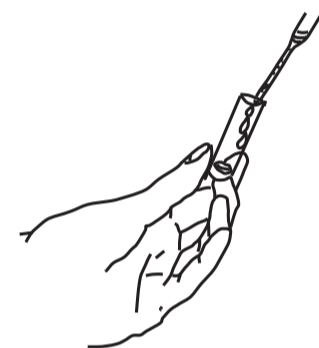
5. Remove the insulation material with forceps and take out the inner vial.



6. Lift the cotton plug using a forceps, remove it, keep it under sterile conditions and flame the top of the inner vial.

Subsequent handling of **anaerobic** strains is described in our catalogue at > Culture Technology in a pdf-file and a video tutorial as well as in the specific strain entries. For all other strains proceed as follows.

7. Add 0.5 ml of medium specified for the strain in the individual strain entry (see above). Replace the plug and allow the pellet to rehydrate for up to 30 minutes.
8. Mix the content gently with an inoculation loop or with a Pasteur pipette. Transfer about half of the whole amount to a test tube with 5 ml of the recommended liquid medium, streak the other half onto a respective agar plate.
9. Incubate liquid and agar cultures under conditions specified for the strain.
10. Before discarding sterilize all the remains of the original ampoule.



Information resources

International:

- World Health Organization (2004) Laboratory Biosafety Manual, 3rd ed. WHO, Geneva, ISBN 92-4-1546506. www.who.int/csr/resources/publications/biosafety/en/biosafety7.pdf
- World Health Organization (2006) WHO Laboratory Biosafety Guidance, WHO/CDS/EPR/2006.6. http://www.who.int/csr/resources/publications/biosafety/WHO_CDS_EPR_2006_6.pdf
- European Parliament (2000) Directive 2000/54/EC on the protection of workers from risks related to exposure to biological agents at work, 18.09.2000
- European Council (2009) Council Regulation (EC) No 428/2009/EC setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items, 29.05.2009
- The Australia Group Biological Agents lists: http://www.australiagroup.net/en/biological_agents.html
- European Council (2000) Council Directive 2000/29/EC on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against spread within the Community, 10.07.2000, and amendments
- European Parliament and Council (2009) Directive 2009/41/EC on the contained use of genetically modified micro-organisms, 06.05.2009
- The Convention on Biological Diversity including the Cartagena Protocol on Biosafety and the Nagoya Protocol on Access and Benefit-sharing. <http://www.cbd.int/>

Germany:

- Gesetz zur Verhütung und Bekämpfung von Infektionskrankheiten beim Menschen (Infektionsschutzgesetz, IfSG)
- Verordnung über Sicherheit und Gesundheitsschutz bei Tätigkeiten mit biologischen Arbeitsstoffen (Biostoff-Verordnung, BioStoffV)
- Technische Regeln für Biologische Arbeitsstoffe (TRBA):
- Bundesministerium für Arbeit und Sozialordnung, www.baua.de > Suche nach "TRBA"
- TRBA 100: Schutzmaßnahmen für Tätigkeiten mit biologischen Arbeitsstoffen in Laboratorien
- TRBA 400: Handlungsanleitung zur Gefährdungsbeurteilung und für die Unterrichtung der Beschäftigten bei Tätigkeiten mit biologischen Arbeitsstoffen
- TRBA/TRGS 406: Sensibilisierende Stoffe für die Atemwege
- TRBA 450: Einstufungskriterien für Biologische Arbeitsstoffe
- TRBA 460: Einstufung von Pilzen in Risikogruppen
- TRBA 466: Einstufung von Prokaryonten (Bacteria und Archaea) in Risikogruppen
- TRBA 500: Grundlegende Maßnahmen bei Tätigkeiten mit biologischen Arbeitsstoffen
- Pflanzenbeschauverordnung (PflBeschauV)
- Verordnung über das Arbeiten mit Tierseuchenerregern (Tierseuchenerreger-Verordnung, TierSeuchErV)
- Verordnung über das innergemeinschaftliche Verbringen und die Einfuhr von Tierseuchenerregern (Tierseuchenerreger-Einfuhr-Verordnung, TierSeuchErEinfV)
- Kriegswaffenkontrollgesetz (KrWaffKontrG) mit Verordnungen, Ausführungsgesetz zu Artikel 26 Abs. 2 des Grundgesetzes
- Gesetz zur Regelung der Gentechnik (GenTG) mit Verordnungen