

**Keimzahlbestimmung
Prüfbericht
Microbiological Examination
Test Report**



**Gesellschaft für
Produktionshygiene und
Sterilitätssicherung mbH**

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phone +49 (0) 241 51 00 50 - 0
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Email: info@gfps.de
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Labornummer:
Laboratory n°:

200812M133

**Auftraggeberangaben:
Client information:**

Diese Felder sind Angaben des Auftraggebers. GfPS mbH übernimmt für diese Inhalte keine Verantwortung.
These fields contain client information. GfPS mbH is not responsible for this information.

Auftraggeber:
Requested by: **Boyteks A.S.**

Auftragsschlüssel:
Identification code: /

Bezeichnung der Probe(n):
Description of sample(s): Probiotic treated carpet

Artikelnummer:
Article n°: /

Datum der Probennahme:
Date of sampling: /

Probennehmer:
Sampler: /

Zustand der Probe(n):
Condition of sample(s): fest solid flüssig liquid sonstiges other

**Organisatorische GfPS Angaben:
GfPS internal information:**

Eingangsdatum im Labor:
Date of laboratory entry: 20.08.2012

Zustand der Verpackung bei Probeneingang:
Entry condition of the packaging to the laboratory: ohne erkennbare Schäden without visible damage beschädigt damaged sonstiges other

Testansatz am 21.08.2012
Test start date: Test abgeschlossen am: 30.08.2012
Test end date:

**Verwendete Nährmedienchargen:
Batch numbers of culture media used:**

Nährmedien- und Reagenzienchargen gemäß Nährmedienliste Rev.: 699
Batch numbers for the culture media and reagents according to list revision:

**Methode nach SOP 113 Rev. D:
Method according to SOP 113 REV. D:**

Ausspateln von 1 ml
Pour plating of 1 ml

Ausspiralisieren von 0,1 ml
Spiral plating of 0.1 ml

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Labornummer:
Laboratory n°:

200812M133

Laborbefund:
Laboratory results:

Nr. n°.	Bezeichnung der Probe Description of sample	KBE / ml cfu / ml	KBE / cm ² cfu / cm ²	Ergebnis Result
1	Probiotic treated carpet	19500000	19500000	Bacillus subtilis

KBE = Koloniebildende Einheit cfu = colony forming unit

Bemerkung:
Remark:

Bacillus subtilis was detected on the probiotic treated carpet.

Aachen, 31.08.2012

Sachbearbeiter
Administrator

Alexandra Fabry



Simon Dietz

Laborleitung
Laboratory management



Akkreditiert durch
Zentralstelle der Länder
für Gesundheitsschutz
bei Arzneimitteln
und Medizinprodukten
ZLG-P-959.96.02

Die Prüfergebnisse beziehen sich nur auf die untersuchten Proben.
Der Prüfbericht darf nur mit Genehmigung der GfPS mbH auszugsweise vervielfältigt werden.
The test results refer exclusively to the tested samples.
Parts of the test report may not be copied without approval by GfPS mbH.

FORM-W-SOP113-H-PRÜFBERICHT-REV003

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Labornummer:
Laboratory n°:

200812M176

**Auftraggeberangaben:
Client information:**

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Auftraggeber:
Requested by: **Boyteks A.S.**

Auftragsschlüssel:
Identification code: /

Bezeichnung der Probe(n):
Description of sample(s): **Untreated carpet**

Artikelnummer:
Article n°: /

Datum der Probennahme:
Date of sampling: /

Probennehmer:
Sampler: /

Zustand der Probe(n):
Condition of sample(s): fest solid flüssig liquid sonstiges other

**Organisatorische GfPS Angaben:
GfPS internal information:**

Eingangsdatum im Labor:
Date of laboratory entry: **20.08.2012**

Zustand der Verpackung bei Probeneingang:
Entry condition of the packaging to the laboratory: ohne erkennbare Schäden without visible damage beschädigt damaged sonstiges other

Testansatz am **21.08.2012** Test abgeschlossen am: **30.08.2012**
Test start date: Test end date:

**Verwendete Nährmedienchargen:
Batch numbers of culture media used:**

Nährmediens- und Reagenzienchargen gemäß Nährmediensliste Rev.: **699**
Batch numbers for the culture media and reagents according to list revision:

**Methode nach SOP 113 Rev. D:
Method according to SOP 113 REV. D:**

Ausspateln von 1 ml
Pour plating of 1 ml

Ausspiralisieren von 0,1 ml
Spiral plating of 0.1 ml

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Labornummer: **200812M176**
Laboratory n°.: **200812M176**

Laborbefund:
Laboratory results:

Nr. n°.	Bezeichnung der Probe Description of sample	KBE / ml cfu / ml	KBE / cm ² cfu / cm ²	Ergebnis Result
1	Untreated carpet	16000	16000	Bacillus cereus (2500 KBE) Bacillus subtilis (1000 KBE) Bacillus megaterium (5000 KBE) Bacillus licheniformis (7500KBE)

KBE = Koloniebildende Einheit cfu = colony forming unit

Bemerkung: Bacillus cereus, Bacillus subtilis, Bacillus megaterium and Bacillus licheniformis
Remark: were detected on the untreated carpet.

Aachen, 31.08.2012

Sachbearbeiter
Administrator

Alexandra Fabry



Stempel

Simon Dietz

Laborleitung
Laboratory management



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FORM-W-SOP113-H-PRÜFBERICHT-REV003

Subculture with microbiological determination of bacteria gram-positive bacteria

Appendix to laboratory number
200812M133, 200812M176



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Bacillus cereus

Bacillus cereus belongs to the family of Bacillaceae. Bacilli are gram-positive, rod shaped bacteria, which are able to form endospores. In this stadium, they survive under bad conditions (lack of water, food etc.). The bacterial spores are distinguished by a high resistance against procedures of sterilisation and disinfection.

Bacillus cereus is responsible for food poisoning. *B. cereus* spores that occur in raw rice survive cooking and multiply when the rice is kept warm or reheated. *Bacillus cereus* (in bacterial counts greater than 10^6 CFU / g of food) forms two toxins responsible for food poisoning:

- 1) A diarrhea-toxin causes 8 - 16 hours after ingestion of the toxin watery diarrhea that after 12 - 24 hours later subside. The toxin is heat-and acid-sensitive.
- 2) Vomiting toxin: The inclusion of food containing toxins causes in 0.5 - 6 hours of nausea and vomiting, abdominal cramps and rarely diarrhea. The toxin is resistant to heat and acid.

In pasteurized, non-fermented milk products *Bacillus cereus* (in a concentration of more than 10^6 CFU / g) lead to pasteurized, causes bitterness (coagulation by protein-degrading enzymes).

Because of the change of taste caused by the activity of Lecithinase the risk of poisoning is not very big.

Bacillus licheniformis

Bacillus licheniformis belongs to the family of Bacillaceae. Bacilli are gram-positive, rod shaped bacteria, which are able to form endospores. In this stadium, they survive under bad conditions (lack of water, food etc.). The bacterial spores are distinguished by a high resistance against procedures of sterilisation and disinfection.

Bacilli are widely spread in nature, mainly in soil microbiology. In technical microbiology, they play a major role (production of protease and amylase, for example for detergent industry). The micro organism is used for the production of antibiotics, it generates the antibiotic Bacitracin.

Bacillus licheniformis is described as pathogen only for patients with failing of immune defence.

Bacillus megaterium

Bacillus megaterium belongs to the family of Bacillaceae. Bacilli are gram-positive, rod shaped bacteria, which are able to form endospores. In this stadium, they survive under bad conditions (lack of water, food etc.). The bacterial spores are distinguished by a high resistance against procedures of sterilisation and disinfection.

Because of its size of $2 \mu\text{m} \times 5 \mu\text{m}$, *Bacillus megaterium* is known as "giant" in the group of bacteria (mega = giant, big). Bacilli are widely spread in nature, mainly in soil and in dead plant material. In technical microbiology, they play a major role (production of penicillin amidase - for penicillin production - and other enzymes).

Bacillus megaterium is described as pathogen only for patients with failing of immune defence.

Bacillus subtilis

Bacillus subtilis, also called "hay-bacillus", belongs to the family of Bacillaceae. Bacilli are gram-positive, rod shaped bacteria, which are able to form endospores. In this stadium, they survive under bad conditions (lack of water, food etc.). The bacterial spores are distinguished by a high resistance against procedures of sterilisation and disinfection.

Bacilli are widely spread in nature, mainly in soil microbiology and in the remineralisation of organic material. In technical microbiology, they play a major role.

Bacillus subtilis demands minimal requirements of nutritive substrate. The bacteria are ubiquitous spread (soil, water, air).

