



IBFE

Institut für Biotechnische
Forschung und Entwicklung

Konrad-Zuse-Str. 10A
66459 Kirkel-Limbach

aquaBENOVA GmbH

Mr. Thomas Graf
Bahnhofstr. 18
86420 Diedorf

Contact: Dr. Heiko Ewen (Head of laboratory)
Phone: 06841 18997-50
Fax: 06841 18997-79
E-mail: info@ibfe-biotech.de

Report No.: 471012-a

Sample material:	aquaBENOVA-CLEAN – drinking water disinfection, in a plastic container	IBFE No: 471012
Project:	aquaBENOVA GmbH	
Testing number:	471012	
Customer:	aquaBENOVA GmbH	
	Yr. Order from:	02.10.2012
	Sample receipt:	08.10.2012
	Start of analysis:	28.10.2012
	End of analysis:	07.11.2012

Assay for a test with *Legionella pneumophila*:

2 x 1 litre of sterile tap water were contaminated with *Legionella pneumophila* to get a total cell concentration of 88.000 *Legionella pneumophila* per litre water. One preparation was treated with 1.5 ml aquaBENOVA-CLEAN and mixed thoroughly. The other preparation was not treated and served as a control for the viability of the test organism during the trial period. At the times mentioned in the table below the germ content of both preparations was determined. According to DIN EN ISO 117312 the spatula method on GVPC-agar was used for the untreated preparation and respectively 100 ml with aquaBENOVA-CLEAN treated preparation were filtered.

Incubation time	Germ content of <i>Legionella pneumophila</i> in untreated tap water	Germ content of <i>Legionella pneumophila</i> in tap water treated with aquaBENOVA-CLEAN
1 hour	> 200 <i>Legionella pneumophila</i> in 100 ml	<i>Legionella pneumophila</i> not detectable in 100 ml
3 hours	> 200 <i>Legionella pneumophila</i> in 100 ml	<i>Legionella pneumophila</i> not detectable in 100 ml

Conclusion:

One litre of water was contaminated with a number of 88.000 *Legionella pneumophila*. After addition of 1.5 ml aquaBENOVA-CLEAN and an incubation time of 1 hour, the water complied with the "German Drinking Water Ordinance" (TrinkwV 2001; technical action value: 100 *Legionella sp.* in 100 ml) regarding to *Legionella*, since in 100 ml of such treated water no viable *Legionella pneumophila* could be detected.

Kirkel-Limbach, 28th of January 2013

reviewed and approved

(Dr. Heiko Ewen, Head of Laboratory / Quality Control)

1/1

Die Prüfergebnisse beziehen sich ausschließlich auf die Prüfgegenstände. Die Akkreditierung gilt für die in der Urkunde aufgeführten Prüfverfahren. Prüfberichte dürfen ohne schriftliche Genehmigung der IBFE GmbH nicht in Auszügen veröffentlicht werden.

Geschäftsführung: Holger Graf

Registergericht: HR Saarbrücken B14445 | USt-Id. Nr.: DE 232594386 | Steuer-Nr.: 075/111/00571

Bankverbindung: Kreissparkasse Saarpfalz | BLZ: 594 500 10 | Konto: 1011036447

IBAN: DE 71 5945 0010 1011 0364 47 | Swift-Bic: SALADE51HOM

