SC Johnson PROFESSIONAL
A family company™

OxyBAC® FOAM Wash & OxyBAC® Fresh FOAM Wash

Summary of Test Data

ISSUE 4

deb SKIN CARE

MAKE HANDS MATTER IN THE WORKPLACE

About SC Johnson Professional

SC Johnson Professional™ provides expert skin care, cleaning & hygiene solutions for industrial, institutional and healthcare users. It incorporates the Deb range of specialist occupational skin care products along with well-known SC Johnson brands and innovative professional cleaning & hygiene products.

Our purpose is to bring innovative, quality products and services to professional markets that rethink how people and organisations experience skin care, cleaning and hygiene, all under a single brand.

Industry

Food Processing & Food Service

Commercial

Healthcare

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OxyBAC FOAM® Wash & OxyBAC FRESH FOAM® Wash

Broad spectrum antimicrobial rich-cream foam hand wash with Accelerated Hydrogen Peroxide® (AHP)

OxyBAC® is a rich-cream FOAM antimicrobial hand wash that combines Deb Foam Technology® with AHP® biocidal agent to provide unique benefits compared with all other antimicrobial hand wash products used in environments where a higher level of hand hygiene is preferred.

Kills 99.999% of many common germs

BROAD SPECTRUM ANTIMICROBIAL ACTIVITY	Extremely effective at killing a broad spectrum of bacteria, yeast and many viruses that can be spread by hands.
HIGH PERFORMANCE PHYSICAL CLEANING	Excellent physical cleaning properties to remove both visible food contamination and invisible micro-organisms.
SAFER FOR THE USER	Non-toxic and non-irritating to skin; does not induce microbial resistance.
SAFER FOR THE ENVIRONMENT	Unlike all other antimicrobial agents, H_2O_2 simply breaks down into oxygen and water, ensuring it does not leave any toxic environmental contamination after use.

In vitro bactericidal **EN 1276**

Objective:

This European Standard is a quantitative suspension test and is used for the evaluation of the bactericidal activity of a product.

General Study Information	
Protocol:	DIN EN1276:2009 (Phase 2 Step 1)
Test House:	HygCen GmbH
Test Product:	OxyBAC® OX2-52
Report Ref:	SN 21209 EN1276
Date of Report:	21/06/16
Test Product:	OxyBAC® Fresh OX2-59P
Report Ref:	SN 21208.1 EN1276
Date of Report:	22/02/17

Study Conclusion:

OxyBAC® and OxyBAC® Fresh have been shown to possess bactericidal activity.

Summary of Test Conditions	
Test Product:	OxyBAC® OX2-52
Product Test Concentrations:	50%, 80% and 97%
Test Temperature:	20ºC ± 1ºC
Organic Load:	Dirty conditions (3g/L bovine albumin)
Test Strains:	*Staphylococcus aureus* ATCC 6538 *Enterococcus hirae* ATCC 10541 *Escherichia coli* ATCC 10536 *Pseudomonas aeruginosa* ATCC 15442
Contact Time:	30 and 60 seconds

Test Results:

The test bacteria were sufficiently (RF >5 (99.999%)) inactivated by OxyBAC® and OxyBAC® Fresh under dirty conditions with the following concentration-time relationships:

Strain	Concentration	Contact time
Staphylococcus aureus	50%	30 sec
Enterococcus hirae	50%	30 sec
Escherichia coli	50%	30 sec
Pseudomonas aeruginosa	50%	30 sec

In vitro bactericidal **EN 1276**

Objective:

This European Standard is a quantitative suspension test and is used for the evaluation of the bactericidal activity of a product.

General Study Information	
Protocol:	DIN EN1276:2009 (Phase 2 Step 1)
Test House:	HygCen GmbH
Test Product:	OxyBAC® OX2-52
Report Ref:	SN 22391 EN1276
Date of Report:	15/02/17
Test Product:	OxyBAC® Fresh OX2-59P
Report Ref:	SN 22392.1 EN 1276
Date of Report:	31/03/17

Study Conclusion:

OxyBAC® and OxyBAC® Fresh have been shown to possess bactericidal activity.

Summary of Test Conditions	
Test Product:	OxyBAC® OX2-52
Product Test Concentrations:	50%, 80% and 97%
Test Temperature:	20ºC ± 1ºC
Organic Load:	Dirty conditions (3g/L bovine albumin)
Test Strains:	*Staphylococcus aureus* (MRSA) ATCC 33592 *Listeria monocytogenes* ATCC 15313 *Salmonella typhimurium* ATCC 13311
Contact Time:	30 and 60 seconds

Test Results:

The test bacteria were sufficiently (RF >5 (99.999%)) inactivated by OxyBAC® and OxyBAC® Fresh under dirty conditions with the following concentration-time relationships:

Strain	Concentration	Contact time
Staphylococcus aureus (MRSA)	50%	30 sec
Listeria monocytogenes	50%	30 sec
Salmonella typhimurium	50%	30 sec

In vivo bactericidal **EN 1499**

Objective:

This European Standard is an in vivo test for assessing a hygienic handwash. The standard specifies a test method simulating practical conditions for establishing whether a product for hygienic handwash reduces the release of transient microbial flora on hands when used to wash the artificially contaminated hands of volunteers.

Test Method:

Hands of volunteers are artificially contaminated with test organisms. The number of test organisms released from their fingertips into sampling fluids is assessed before and after the hygienic handwash. The ratio of the two resulting values represents a measure for the antimicrobial activity of the product tested. To compensate for extraneous influences, it is compared with the reduction obtained by a reference handwash.

Requirement:

The mean reduction of the release of the test organism achieved by the hygienic handwash with the product under test shall be larger than that achieved by the reference handwash (unmedicated liquid soap).

General Study Information	
Protocol:	DIN EN1499:2013 (Phase 2 Step 2)
Test House:	Dr Brill +Partner GmbH
Test Strain:	*Escherichia coli* NCTC 10538
Application:	With water
Number of Test Persons:	15
Reference Product:	Potassium soap (Sapo kalinus Caclo DAC 2004)
Reference Product Volume:	5.0ml
Reference Product Contact:	60 seconds

Test Product:	OxyBAC OX2-52	OxyBAC OX2-59P
Test Product Volume:	1.5ml	1.5ml
Test Product Contact Time:	*30 seconds*	*30 seconds*
Test Product Concentration:	100%	100%
Report Ref:	L16/0584.1.U	L16/0584.1.U
Date of Report:	13/12/2016	07/02/17

Test Results:

1.5ml of test product achieved a significantly higher log reduction in 30 seconds than was achieved for 5ml of reference product (potassium soap) in 60 seconds. The statistical comparison was based on the lower limit of rank sums in the Wilcoxon test (one-sided test p = 0.01).

Study Conclusion:

OxyBAC® and OxyBAC® Fresh showed a sufficient effect in the practice-like test according to EN 1499:2013 with Escherichia coli with 1.5 ml and a contact time of 30 seconds if applied with water.

OxyBAC® and OxyBAC® Fresh have been shown to possess bactericidal activity.

In vitro Yeasticidal **EN 1650**

Objective:

This European Standard is a quantitive suspension test and is used for the evaluation of the yeasticidal activity of a product.

Summary of Test Conditions	
Product Test Concentrations:	50%, 80%, 97%
Test Temperature:	20ºC ± 1ºC
Organic Load:	Dirty conditions (3.0g/L bovine albumin)
Test Strains:	*Candida albicans* ATCC 10231
Contact Time:	30 and 60 seconds

General Study Information	
Protocol:	DIN EN1650:2015 (Phase 2, Step 1)
Test House:	HygCen GmbH
Test Product:	OxyBAC® OX2-52
Report Ref:	SN 21209 EN1650
Date of Report:	31/06/2016
Test Product:	OxyBAC® Fresh OX2-59P
Report Ref:	SN21208.1 EN1650
Date of Report:	22/02/2017

Study Conclusion:

OxyBAC® and OxyBAC® Fresh have been shown to possess yeasticidal activity.

Test Results:

The test yeast were sufficiently (RF >4 (99.99%)) inactivated by OxyBAC and OxyBAC Fresh under dirty conditions with the following concentration-time relationships:

Strain	Concentration	Contact time
Candida albicans	97%	30 sec

In vitro virucidal **EN 14476**

Objective:

To evaluate the virus inactivating properties of the product against a range of common viruses using a quantitive suspension assay following the EN 14476:2013 test method.

General Study Information	
Protocol:	Following EN14476:2013+A1 2015 (Phase 2 Step 1)
Test House:	Dr Brill +Partner GmbH
Date of Report:	21/06/16
Test Product:	OxyBAC® OX2-52 and OxyBAC® Fresh OX2-59P

Study Conclusion:

OxyBAC® and OxyBAC® Fresh have been shown to possess virucidal activity against all of the above viruses.

After evaluation with modified vaccina virus Ankara OxyBAC® can be declared as having "virucidal activity against all enveloped viruses" according to EN14476:2013+A1:2015.

Summary of Test Conditions			
Product Test Concentrations:	2%, 10% and 20%		
Test Temperature:	20ºC ± 1ºC		
Organic Load:	Dirty conditions: 3.0g/L bovine albumin + 3.0g/L sheep erythrocytes		
Test Strains:	**Virus**	**OxyBAC OX2-52 report ref / date:**	**OxyBAC Fresh OX2-59P report ref / date:**
	Modified vaccina virus Ankara (MVA) (ATCC VR15008)	L16/0642bMV.U1 / 16/11/16	L16/0642bMV.U / 16/11/16
	Human influenza A Virus H3N2 strain Panama / 2007 / 99 (H3N2)	L16/0857bHI,U / 18/01/17	L16/0857bHI,U / 18/01/17
	Influenza A virus H1N1 (swine) strain sw/Greven/IDT2889/2004 H1N1	L16/0857bSI,U / 11/01/17	L16/0857bSI,U / 11/01/17
	Influenza A virus H3N8 (avian) strain duck/Ukraine/1/63 (H3N8)	L16/0857bAI,U / 18/01/17	L16/0857bAI,U / 18/01/17
	BVDV strain NADL (surrogate of HCV)	L16/0857bB,U / 04/01/17	L16/0857bB,U / 04/01/17
Contact Time:	30 seconds and 60 seconds		

Test Results:

The test viruses were sufficiently (RF >4 (99.99%)) inactivated by OxyBAC and OxyBAC Fresh under dirty conditions with the following concentration-time relationships:

Virus	Concentration	Contact time
Modified vaccina virus Ankara (MVA) (ATCC VR15008)	20%	30 sec
Human influenza A Virus H3N2 strain Panama / 2007 / 99 (H3N2)	2%	30 sec
Influenza A virus H1N1 (swine) strain sw/Greven/IDT2889/2004 H1N1	2%	30 sec
Influenza A virus H3N8 (avian) strain duck/Ukraine/1/63 (H3N8)	2%	30 sec
BVDV strain NADL (surrogate of HCV)	20%	30 sec

Acute Skin Compatibility

Objective:

To determine the irritancy potential of OxyBAC® and OxyBAC® Fresh on the skin.

General Study Information	
Protocol:	48 hour semi-occlusive patch test
Test House:	IDEA
Test Product:	OxyBAC® OX2-52
Report Ref:	168579
Date of Report:	05/12/16

General Study Information	
Protocol:	48 hour semi-occlusive patch test
Test House:	IDEA
Test Product:	OxyBAC® Fresh OX2-59P
Report Ref:	168578
Date of Report:	05/12/16

Summary of Test Method:

10 subjects, with a normal skin and no dermatological lesions, were included in the study.

A single application of 160 µl of test product, diluted at 5%, was applied to the outer arm of each subject, using a semi-occlusive patch.

After 48 hours, the patch was removed, and 30 minutes after removal the test site was assessed for irritation.

The presence of any erythema, oedema, papulae, vesicles and blisters was evaluated, then the average irritation score was calculated.

The average irritation index is from 0 to 3 (non irritant to severely irritant according the below):

≤ 0.20	Non Irritant
0.20< to ≤ 0.50	Slightly Irritant
0.50< to ≤ 2	Moderately irritant
0.2< to ≤ 3	Very Irritant

Summary of Test Results:

The mean irritation score for OxyBAC® and OxyBAC® Fresh was found to be 0. Therefore both products can be considered to be non irritant.

Hypoallergenic Risk Assessment

Objective:

A risk assessment conducted by a toxicologist in order to determine the allergic potential of OxyBAC® and OxyBAC® Fresh.

General Study Information	
Protocol:	Hypoallergenic Risk Assessment
Test House:	Delphic HSE solutions Ltd
Test Product:	OxyBAC® OX2-52
Report Ref:	29605
Date of Report:	21/11/16

General Study Information	
Protocol:	Hypoallergenic Risk Assessment
Test House:	Delphic HSE solutions Ltd
Test Product:	OxyBAC® Fresh OX2-59P
Report Ref:	28352
Date of Report:	05/08/16

Hypoallergenic Criteria:

In general a product will be considered hypoallergenic if it is formulated in such a way as to provide either minimal or no risk of provoking an allergic response in consumers. A number of factors may contribute to this assessment:

1 General Ingredients:

i. An absence of substances with allergenic potential.

a. Substances that pose some allergenic potential based on the presence of trace materials should, where technically possible, be refined in such a way as to ensure the absence of such impurities.

2 Fragrance / Essential Oil Components:

i. These must not be present at a level that would require the listing of any of the 26 fragrance allergens identified by the EU Cosmetics Directive.

ii. Irrespective of the above, all Fragrances must be present at a level at least 100-times lower than that shown not to induce allergy in man.

3 Preservatives:

i.The recommended level of allergenic preservatives is at most 50% of the concentration that is legally acceptable in a general cosmetic product.

ii.In all cases this level must be below that shown to cause an adverse effect in 1% of a tested population if such data are available.

Assessment summary OxyBAC®:

An unfragranced antibacterial handwash product intended for use by adults. All of the base constituents have low allergenic capacity and under normal conditions of use this product would be considered most unlikely to provoke an adverse allergenic reaction in users.

Overall this product has been formulated in such a way as to minimise the likelihood of an adverse allergenic reaction occurring and as such can be considered to meet the requirements for being described as 'Hypoallergenic'.

Assessment summary OxyBAC® Fresh:

An antibacterial handwash product intended for use by adults. All of the base constituents have low allergenic capacity and under normal conditions of use this product would be considered most unlikely to provoke an adverse allergenic reaction in users.

The Fragrance does not contain any of the 26 fragrance allergens identified by the EU Cosmetics Directive.

Overall this product has been formulated in such a way as to minimise the likelihood of an adverse allergenic reaction occurring and as such can be considered to meet the requirements for being described as 'Hypoallergenic'.

Taint Test **- Triangle Test, BS EN ISO 4120:2007**

Objective:

To determine whether OxyBAC® would have the potential to taint after direct contact with food.

General Study Information	
Protocol:	Triangle Test No. TES-S-004 (British Standard, Sensory Analysis – Methodology – Triangle Test, BS EN ISO 4120:2007).
Test House:	Campden BRI (Chipping Campden) Ltd
Test Product:	OxyBAC® OX2-52
Report Ref:	S/REP/140988/1
Date of Report:	6/01/17

Description:

2 doses (2 x 1.5 ml) of OxyBAC® were dispensed onto glass tiles and spread over the surface of each. The product was then rinsed off the tiles with distilled water. When dry, the tiles were stored in direct contact with chocolate buttons for 24 hours inside a sealed glass container. Untreated (control) chocolate buttons were set up using the same method as above, but using distilled water in place of the test product.

The chocolate was evaluated by forty-two trained sensory assessors using the Triangle Test Method for similarity. This test requires that assessors are presented with sets of three coded chocolate samples, two of which are the same and one of which is different.

After tasting, each assessor is asked to select the different sample. The test states that if no more than 16 of the 42 assessors identify the chocolate sample that is different, then the product has met the requirements. Therefore, if 16 or less of the assessors identify the different sample, then the product would not be considered to have the potential to taint.

Summary of Test Results:

Less than 16 assessors correctly identified the different sample. Therefore, OxyBAC was found not to have the potential to taint.

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At SC Johnson Professional® we provide expert skin care, cleaning & hygiene solutions for industrial, institutional and healthcare users.

Our product range incorporates the Deb range of specialist occupational skin care products along with the well-known SC Johnson brands enhanced for professional use and innovative specialist professional cleaning & hygiene products.

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RETHINKING THE PROFESSIONAL EXPERIENCE