



# BioClean™ Nerva Non-sterile Nitrile Gloves - BNAL

# CHEMICAL PERMEATION REPORT

### Method

Data is presented according to the method described in the table below.

STANDARD	DOCUMENT TITLE	USED TO EVALUATE:	
ASTM F739-12	Standard Test Method for Permeation of Liquid and Gases through Protective Clothing Materials under Conditions of Continuous Contact	Resistance to permeation by chemicals	
EN 374-3 / EN 16523-1:2015	Standard Test Method for Permeation of Liquid and Gases through Protective Clothing Materials under Conditions of Continuous Contact	Resistance to permeation by chemicals	

# Permeation breakthrough times according to ASTM F379-12

CHEMICAL AGENT	CAS NUMBER	MEAN BREAKTHROUGH TIME (MINUTES)	PROTECTIVE INDEX	PART
Ammonium Hydroxide 28%	1336-21-6	1336-21-6 26		Palm
Citric Acid 10%	77-92-9	>480	6	Palm
Glutaraldehyde 50%	111-30-8	>480	6	Palm
Hexane	110-54-3	33	2	Palm
Hydrochloric Acid 32%	7647-01-0	397	5	Palm
Hydrochloric Acid 37%	7647-01-0	135	4	Palm
Hydrogen Peroxide 30%	7722-84-1	>480	6	Palm
lodine 10%	10034-85-2	>480	6	Palm
Isopropanol 70%	67-63-0	31	2	Palm
n-Heptane 142-82-5		51	2	Palm
Phosphoric Acid 85%	7664-38-2	>480	6	Palm
Sodium Hydroxide 40%	1310-73-2	>480	6	Palm
Sodium Hypochlorite 12%	7681-52-9	>480	6	Palm
Sulfuric Acid 96% 7664-93-9		11	1	Palm

Breakthrough time of the chemical is considered at a permeation rate of 0.1  $\mu g/cm^2$  /min per ASTM F739-12

# Permeation breakthrough times according to EN 16523-1:2015

CHEMICAL AGENT	CAS NUMBER	MEAN BREAKTHROUGH TIME (MINUTES)	PROTECTIVE INDEX	PART	
Sodium Hydroxide (NaOH) 40%	1310-73-2	>480	6	Palm	
Ammonia 25%	7664-41-7	11	1	Palm	
Formaldehyde 37%	50-00-0	>480	6	Palm	
Isopropyl alcohol (IPA) 70%	67-63-0	51	2	Palm	
Ethanol 70%	64-17-5	37	2	Palm	
Ammonium Hydroxide 28%	1336-21-6	26	2	Palm	
Citric Acid 10% 77-92-9		>480	6	Palm	
Glutaraldehyde 50%	111-30-8	>480	6	Palm	
Hexane	110-54-3	27	2	Palm	
Hydrochloric Acid 32%	7647-01-0	414	5	Palm	
Hydrochloric Acid 37% 7647-01-0		136	4	Palm	
Hydrogen Peroxide 30% 7722-84-1		>480	6	Palm	
lodine 10% 10034-85-2		>480	6	Palm	
Isopropanol 70%	67-63-0	47	2	Palm	
n-Heptane	142-82-5	111	3	Palm	
Phosphoric Acid 85%	7664-38-2	>480	6	Palm	
Sodium Hypochlorite 12%	7681-52-9	>480	6	Palm	

Breakthrough time of the chemical is considered at a permeation rate of 1.0 µg/cm²/min per EN ISO 16523-1:2015

### Historical permeation data according to EN 374-3:2003

CHEMICAL AGENT	CAS NUMBER	MEAN BREAKTHROUGH TIME (MINUTES)	PROTECTIVE INDEX	PART
Formaldehyde 30%	50-00-0	>480	6	Palm
Hydrochloric Acid 32%	7647-01-0	>480	6	Palm
Sodium Hypochlorite 12%	7681-52-9	>480	6	Palm

Breakthrough time is deemed to have occurred when the permeation rate of the challenge chemical reaches 1.0µg/cm²/min

RATING SYSTEM						
0	1	2	3	4	5	6
<10	10-30	30-60	60-120	120-240	240-480	>480
NOT RECOMMENDED	SPLASH PROTECTION		MEDIUM PROTECTION		HIGH PROTECTION	

Data given in the table above are based on results of laboratory tests performed on the palm area of the glove or on the cuff area if relevant. These tests were run using standard test methods that may not adequately replicate any specific conditions of end use. We wish to highlight that permeation times do not equate to safe wear time. Because Ansell has no detailed knowledge or control over the conditions of end use, any of these data must be advisory only, and Ansell must decline any liability.

# Contact your Ansell representative for ordering or more information.

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