PUREZERO*

HG3 Nitrile Cleanroom Gloves

HALYARD*

MANAGE YOUR CLEANROOM RISKS WITH HALYARD* **PURE**ZERO* HG3 NITRILE GLOVES

PUREZERO*

HG3 Nitrile Cleanroom Gloves

Because you're responsible for managing risks in your cleanroom operation, choosing the right cleanroom glove is critical.

Your gloves have a big job to do, protecting your workers as well as your product and your process. Plus you need a reliable supply to avoid operations disruption. That's why we created HALYARD* **PURE**ZERO* Cleanroom Gloves.

PUREZERO* Cleanroom Gloves are ideal for applications that involve handling delicate equipment in microelectronics, semiconductors, optics, pharmaceutical and medical device manufacturing applications. In fact, they are specifically designed to meet the stringent requirements of cleanroom environments.

PUREZERO* Gloves are designed to exact standards, to help you:

- manage the risks associated with user comfort and protection
- manage product contamination
- manage supply chain resiliency

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HG3 Nitrile Cleanroom Gloves

THE RISK: USER COMFORT AND PROTECTION

The accelerator-free[1] formulation of PUREZERO* **Cleanroom Nitrile Gloves is the solution.** It reduces the risk of allergies and skin irritation associated with accelerator chemicals in other nitrile gloves. As a result, **PURE**ZERO* Gloves are comfortable to wear, allowing workers to focus on their delicate tasks rather than their gloves.

PUREZERO* Cleanroom Nitrile Gloves are designed to protect workers with effective barrier protection against chemical splash, micro-organisms and viruses.

HALYARD* **PURE**ZERO* HG3 Sterile Gloves are compliant with European Union Good Manufacturing Practices (EU GMP) Annex 1, Part 7.16 and Part 7.13.

Our gloves are PPE Category III certified according to the following standards:

EN 16523-1:2015+A1:2018
EN ISO 374-2:2019
EN ISO 374-4:2019
EN ISO 374-5:2016 Virus Protection
EN ISO 374-1:2016+A1:2018/ Type B
EN ISO 21420:2020 Dexterity Classification: Level 5

THE RISK: PRODUCT CONTAMINATION

The solution is the consistent quality of PUREZERO* **Cleanroom Gloves, ensuring low particle and endotoxin levels. PURE**ZERO* Gloves are manufactured and packaged at our ISO 9001 facility in state-of-the-art cleanrooms and are **recommended for ISO Class 3 or higher and Grade A/B/C/D cleanrooms**. Our gloves are clean processed (washed repeatedly in deionized water) to ensure consistent control of low particles, extractables and endotoxin levels.

- Low Particle Levels: <950 particles (>0.5 µm) /cm^2 for white gloves, <1200 particles (>0.5 µm) /cm^2 for blue gloves
- Sterility Assurance Levels (SAL) of 10^{-6} and an endotoxin level of 20 units/pair maximum
- AQL of 1.0 for pinholes
- Static dissipative in use[2]
- Double bagged plus case liner

You can rely on consistent quality, with Certificates of Analysis (CoA), and Certificates of Irradiation (CoI) / Certificates of Processing (COP) easily accessible online for every production lot. You can also find the Declaration of Conformity (DoC) documents showing compliance to applicable regulations and standards, all at **www.halyardhealth.com/information**.

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HG3 Nitrile Cleanroom Gloves

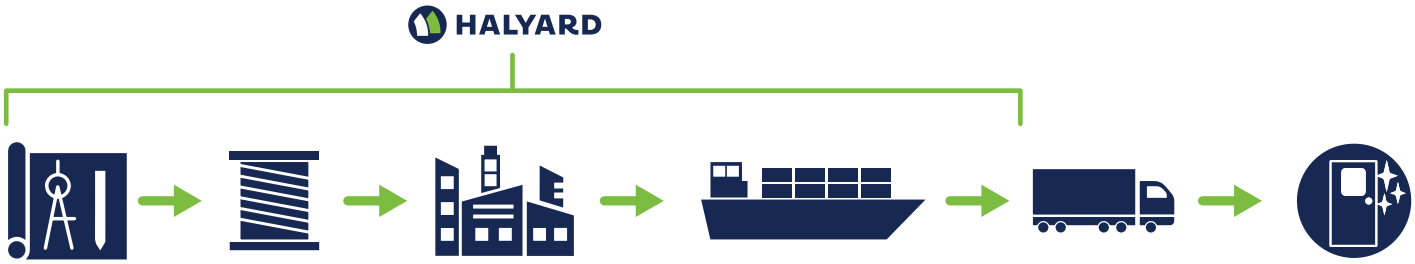
Manufactured at OUR OWN Safeskin Facility in Thailand.

THE RISK: SUPPLY CHAIN RESILIENCY

PUREZERO*** Cleanroom Gloves are the solution, ensuring reliable supply, regulatory compliance and consistent quality.**

HALYARD* has manufactured private label cleanroom gloves for more than 20 years at our Safeskin Medical & Scientific (Thailand) Ltd. manufacturing facility, which holds ISO 9001, ISO 13485, and ISO 14001: 2015 - Environmental Management System.

We control the materials and design while adhering to strict quality standards and product specifications in our own facilities, with our own teammates. Quality and sterility assurance levels are guaranteed, with all raw materials and components traceable to their original supplier. And with our global product codes, you can use **one code/SKU from HALYARD* globally at all of your production facilities.**



From raw materials to distribution, we have full control over our global supply chain.

RISK-FREE CONVERSION

With our years of cleanroom glove experience, HALYARD* can provide all the support you need to easily convert from your current glove to **PURE**ZERO* Cleanroom Gloves, including:

- **Technical documentation**
- **Validation data**
- **Product knowledge and expertise**

We also have the manufacturing capacity to assure you a reliable glove supply going forward.

To trial HALYARD* **PURE**ZERO* Cleanroom Gloves, contact your Cleanroom Distributor today, or email us at info@hyh.com.

PUREZERO*

HG3 Nitrile Cleanroom Gloves

PUREZERO* HG3 CLEANROOM GLOVE PORTFOLIO

HALYARD* offers an accelerator-free[1] portfolio of three non-sterile and two sterile cleanroom gloves to address the needs of pharmaceutical, medical device, microelectronics and semi-conductor manufacturing industries.

NON-STERILE

HALYARD* **PURE**ZERO* HG3 WHITE NITRILE GLOVES

PUREZERO* HG3 White Nitrile Cleanroom Gloves are non-sterile, ambidextrous, 6.3 mil (0.16mm) fingertip thickness, and 12 inches (305mm) long with a high tack/grip surface and feature a beaded cuff to aid in donning and help prevent roll down.

Physical Properties

AQL	1.0
Non-Sterile	✓
Ambidextrous	✓
Tacky Grip	✓
Textured Fingertips	✓
Accelerator-Free[1]	✓
Static Dissipative in Use[2]	✓
Latex-Free	✓
Powder-Free	✓
Silicone-Free	✓
Tensile Strength[3]	35 MPa (Target)
Ultimate Elongation[3]	600%
Shelf Life	3 Years

Cleanliness Properties

Max Particle Count (>0.5 µm)	<950 particles/cm^2	IEST RP-CC005
Ionic Content (Extractable ions)	Max Level (µg/g)	IEST RP-CC005
Calcium	50	
Chloride	35	
Magnesium	5	
Nitrate	20	
Potassium	5	
Sodium	10	
Sulfate	10	
Zinc	7	
Ammonium	5	

For use in ISO Class 3 or higher, Grade B/C/D

TACKY GRIP TEXTURED FINGERTIPS

Ordering Information

Size	Code
XS	CLN3031XS
SM	CLN3031SM
MD	CLN3031MD
LG	CLN3031LG
XL	CLN3031XL

HALYARD* **PURE**ZERO* HG3 LIGHT BLUE NITRILE GLOVES

PUREZERO* HG3 Light Blue Nitrile Cleanroom Gloves are non-sterile, ambidextrous, 3.9 mil (0.10mm) fingertip thickness, and 12 inches (305mm) long with a high tack/grip surface and feature a beaded cuff to aid in donning and help prevent roll down.

Physical Properties

AQL	1.0
Non-Sterile	✓
Ambidextrous	✓
Tacky Grip	✓
Textured Fingertips	✓
Accelerator-Free[1]	✓
Static Dissipative in Use[2]	✓
Latex-Free	✓
Powder-Free	✓
Silicone-Free	✓
Tensile Strength[3]	35 MPa (Target)
Ultimate Elongation[3]	600%
Shelf Life	3 Years

Cleanliness Properties

Max Particle Count (>0.5 µm)	<1200 particles/cm^2	IEST RP-CC005
Ionic Content (Extractable ions)	Max Level (µg/g)	IEST RP-CC005
Calcium	50	
Chloride	35	
Magnesium	5	
Nitrate	20	
Potassium	5	
Sodium	10	
Sulfate	10	
Zinc	7	
Ammonium	5	

For use in ISO Class 3 or higher, Grade B/C/D

TACKY GRIP TEXTURED FINGERTIPS

Ordering Information

Size	Code
XS	CLN9031XS
SM	CLN9031SM
MD	CLN9031MD
LG	CLN9031LG
XL	CLN9031XL

PUREZERO*

HG3 Nitrile Cleanroom Gloves

NON-STERILE (Continued)

HALYARD* **PURE**ZERO* HG3 WHITE SGX* NITRILE GLOVES

PUREZERO* HG3 WHITE SGX* Nitrile Cleanroom Gloves with SMOOTH GRIP TECHNOLOGY* are non-sterile, ambidextrous, 6.3 mil (0.16mm) fingertip thickness, and 12 inches (305mm) long and feature a beaded cuff to aid in donning and help prevent roll down.

Physical Properties

AQL	1.0
Non-Sterile	✓
Ambidextrous	✓
Smooth Grip	✓
Textured Fingertips	✓
Accelerator-Free[1]	✓
Static Dissipative in Use[2]	✓
Latex-Free	✓
Powder-Free	✓
Silicone-Free	✓
Tensile Strength[3]	35 MPa (Target)
Ultimate Elongation[3]	600%
Shelf Life	3 Years

Cleanliness Properties

Max Particle Count (>0.5 µm)	<950 particles/cm^2	IEST RP-CC005
Ionic Content (Extractable ions)	Max Level (µg/g)	IEST RP-CC005
Calcium	50	
Chloride	35	
Magnesium	5	
Nitrate	20	
Potassium	5	
Sodium	10	
Sulfate	10	
Zinc	7	
Ammonium	5	

For use in ISO Class 3 or higher, Grade B/C/D

SMOOTH GRIP TEXTURED FINGERTIPS

Ordering Information

Size	Code
XS	CLN3231XS
SM	CLN3231SM
MD	CLN3231MD
LG	CLN3231LG
XL	CLN3231XL

PUREZERO*

HG3 Nitrile Cleanroom Gloves

STERILE

HALYARD* **PURE**ZERO* HG3 LIGHT BLUE STERILE NITRILE GLOVES

PUREZERO* HG3 Light Blue Sterile Nitrile Cleanroom Gloves have a hand specific shape, 3.9 mil (0.10mm) fingertip thickness, 12 inch (305mm) length with a smooth grip and a beaded cuff to aid in donning and help prevent roll down.

Physical Properties

AQL	1.0
Sterile	✓
Hand Specific Pairs	✓
Smooth Grip	✓
Textured Fingertips and Palms	✓
Accelerator-Free[1]	✓
Static Dissipative in Use[2]	✓
Latex-Free	✓
Powder-Free	✓
Silicone-Free	✓
Tensile Strength[3]	35 MPa (Target)
Ultimate Elongation[3]	600%
Sterility Assurance Level (SAL)	10^{-6}
Shelf Life	3 Years

Cleanliness Properties

Max Particle Count (>0.5 µm)	<1200 particles/cm^2	IEST RP-CC005
Max Endotoxin Level	<20 EU / pair	
Ionic Content (Extractable ions)	Max Level (µg/g)	IEST RP-CC005
Calcium	50	
Chloride	35	
Magnesium	5	
Nitrate	20	
Potassium	5	
Sodium	10	
Sulfate	10	
Zinc	7	
Ammonium	5	

For use in ISO Class 3 or higher, Grade A/B

SMOOTH GRIP TEXTURED FINGERTIPS AND PALMS SAL 10^{-6}

Ordering Information

Size	Code
6.0	CLN923260
6.5	CLN923265
7.0	CLN923270
7.5	CLN923275
8.0	CLN923280
8.5	CLN923285
9.0	CLN923290
10.0	CLN923210

HALYARD* **PURE**ZERO* HG3 WHITE STERILE NITRILE GLOVES

PUREZERO* HG3 White Sterile Nitrile Cleanroom Gloves have a hand specific shape, 6.3 mil (0.16mm) fingertip thickness, 12 inch (305mm) length with a smooth grip, and beaded cuff to aid in donning and help prevent roll down.

Physical Properties

AQL	1.0
Sterile	✓
Hand Specific Pairs	✓
Smooth Grip	✓
Textured Fingertips and Palms	✓
Accelerator-Free[1]	✓
Static Dissipative in Use[2]	✓
Latex-Free	✓
Powder-Free	✓
Silicone-Free	✓
Tensile Strength[3]	35 MPa (Target)
Ultimate Elongation[3]	600%
Sterility Assurance Level (SAL)	10^{-6}
Shelf Life	3 Years

Cleanliness Properties

Max Particle Count (>0.5 µm)	<950 particles/cm^2	IEST RP-CC005
Max Endotoxin Level	<20 EU / pair	
Ionic Content (Extractable ions)	Max Level (µg/g)	IEST RP-CC005
Calcium	50	
Chloride	35	
Magnesium	5	
Nitrate	20	
Potassium	5	
Sodium	10	
Sulfate	10	
Zinc	7	
Ammonium	5	

For use in ISO Class 3 or higher, Grade A/B

SMOOTH GRIP TEXTURED FINGERTIPS AND PALMS SAL 10^{-6}

Ordering Information

Size	Code
6.0	CLN323260
6.5	CLN323265
7.0	CLN323270
7.5	CLN323275
8.0	CLN323280
8.5	CLN323285
9.0	CLN323290
10.0	CLN323210

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HG3 Nitrile Cleanroom Gloves

ADDED PROTECTION FROM THE RISK OF CHEMICAL EXPOSURE

It's critical to protect staff from exposure to potentially hazardous chemicals and chemotherapy drugs. In addition to providing a barrier to chemical splash, microorganisms and viruses, **PURE**ZERO* HG3 Cleanroom Gloves are **now tested against 29 chemicals, 14 chemotherapy drugs and Fentanyl.**

Meets USP <800> Guidelines.

Tested against Fentanyl.

CHEMOTHERAPY DRUG RESISTANCE GUIDE[4]

Chemotherapy Agent (Concentration in mg/ml)	HALYARD* **PURE**ZERO* HG3 White SGX* Nitrile Gloves		HALYARD* **PURE**ZERO* HG3 White Nitrile Gloves		HALYARD* **PURE**ZERO* HG3 Light Blue Nitrile Gloves	
	Minimum Break-through Detection Time (minutes)	Average Steady State Perm. Rate (µg/cm²/min)	Minimum Break-through Detection Time (minutes)	Average Steady State Perm. Rate (µg/cm²/min)	Minimum Break-through Detection Time (minutes)	Average Steady State Perm. Rate (µg/cm²/min)
Carmustine (BCNU) (3.3)	108.5	0.10	55.4	0.50	24.7	0.66
Cisplatin (1.0)	>240	N/A	>240	N/A	>240	N/A
Cyclophasphamide (20.0)	>240	N/A	>240	N/A	>240	N/A
Dacarbazine (10.0)	>240	N/A	>240	N/A	>240	N/A
Doxorubicin HCL (2.0)	>240	N/A	>240	N/A	>240	N/A
Etoposide (20.0)	>240	N/A	>240	N/A	>240	N/A
Fluorouracil (50.0)	>240	N/A	>240	N/A	>240	N/A
Ifosfamide (50.0)	>240	N/A	>240	N/A	>240	N/A
Methotrexate (25.0)	>240	N/A	>240	N/A	>240	N/A
Mitomycin C (0.5)	>240	N/A	>240	N/A	>240	N/A
Mitoxantrone (2.0)	>240	N/A	>240	N/A	>240	N/A
Paclitaxel (6.0)	>240	N/A	>240	N/A	>240	N/A
Thiotepa (10.0)	>240	N/A	48.8	0.23	27.4	0.60
Vincristine (1.0)	>240	N/A	>240	N/A	>240	N/A
Additional Tests						
Fentanyl Citrate Injection, 100 mcg/2mL	>240	N/A	>240	N/A	>240	N/A

Use the rating system below to determine the chemotherapy compatibility for exposure:

<10	Not recommended for use - breakthrough can occur in less than 10 minutes.
11 - 239	Use with caution - breakthrough can occur between 11 and 239 minutes.
>240	Recommended for protection - no breakthrough up to 240 minutes.
N/A	The chemotherapy drug did not reach the minimum permeation rate (0.01 µg/cm²/min) as defined within ASTM D6978.

CAUTION: It's the user's responsibility to determine the applicability of these gloves for their intended use with chemotherapy drugs.

Contact your Sales Representative for additional chemical and chemotherapy drug testing information.

DEFINITION OF TERMS

Breakthrough time: The time required for the test chemical to be detected on the inside of the glove. Essentially, this is the amount of time that the glove can resist a chemical when the glove is fully immersed in the chemical.

Permeation: The process where chemicals, such as liquids, gases and vapors can pass through a glove film (or other PPE interfaces) without penetrating directly through a pinhole, tear or other visible opening.

Permeation rate: The flowrate of the chemical after the chemical breaks through the inside of the glove. It is measured in amount per surface area of the glove per time (µg/cm²/min).

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HG3 Nitrile Cleanroom Gloves

CHEMICAL RESISTANCE GUIDE[5]

Chemical (Concentration %)	HALYARD* **PURE**ZERO* HG3 White SGX* Nitrile Gloves		HALYARD* **PURE**ZERO HG3 White Nitrile Gloves		HALYARD* **PURE**ZERO HG3 Light Blue Nitrile Gloves	
	Minimum Breakthrough Detection Time (minutes)	Average Steady State Perm. Rate (µg/cm²/min)	Minimum Breakthrough Detection Time (minutes)	Average Steady State Perm. Rate (µg/cm²/min)	Minimum Breakthrough Detection Time (minutes)	Average Steady State Perm. Rate (µg/cm²/min)
1-Butanol (99)	32.8	1.5E+01	173.0	1.5	23.9	1.6E+01
Acetic Acid (30)	360.6	1.5E+02	388.9	4.5	269.2	0.3
Acrylamide (40)	>480	<1.0	>480	<1.0	>480	<1.0
Benzalkonium Chloride (1)	>480	<1.0	>480	<1.0	>480	<1.0
Chloroform (70)	0	–	0	–	0	–
Citric Acid (30)	>480	N/A	>480	N/A	>480	N/A
Citric Acid (70)	>480	<1.0	>480	<1.0	>480	<1.0
Cyclohexane (99)	33.6	6.6E+01	261.6	1.7	44.9	7.0E+01
Didecyldimethylammonium Chloride (0.04)	>480	<1.0	>480	<1.0	>480	<1.0
Dimethylformamide (99)	0.2	N/A	0	N/A	0.2	–
Dimethyl Sulfoxide (99)	10.0	N/A	10.1	3.6E+01	5.1	9.0
Ethanol (70)	37.6	7.6	42.2	12.5	30.6	7.6
Ethanol (99)	9.8	1.1E+02	14.5	9.4E+01	7.1	N/A
Ethidium Bromide (1)	>480	<1.0	>480	<1.0	>480	<1.0
Glycolic Acid (10)	>480	<1.0	>480	<1.0	>480	<1.0
Glutaraldehyde (50)	>480	<1.0	>480	<1.0	>480	<1.0
Hydrazine Monohydrate (55)	>480	N/A	>480	0.1	>480	<1.0
Hydrochloric Acid (30)	>480	<1.0	>480	<1.0	>480	<1.0
Isopropyl Alcohol (70)	50.3	1.0E+01	125.7	1.7	33.0	1.1E+01
Isopropyl Alcohol (99)	42.1	1.5E+01	102.2	4.3	16.6	1.6E+01
Methanol (99)	0	N/A	4.2	4.5E+01	0	N/A
Nitric Acid (65)	10.0	1.8E+03	16.0	2.0E+02	6.5	1.3E+04
Peracetic Acid (5)	>480	<1.0	>480	<1.0	>480	<1.0
Phosphoric Acid (70)	>480	<1.0	>480	<1.0	>480	<1.0
Sodium Hydroxide (50)	>480	<1.0	>480	<1.0	>480	<1.0
Sodium Hypochlorite (10-13)	>480	<1.0	>480	<1.0	>480	<1.0
Spor-Klenz (N/A)	>480	<1.0	>480	<1.0	>480	<1.0
Sulfuric Acid (50)	>480	<1.0	>480	<1.0	>480	<1.0
Sulfuric Acid (99)	15.0	N/A	12.0	N/A	10.0	N/A

Use the rating system below to determine the chemical compatibility for exposure:

<10	Not recommended for use - breakthrough can occur in less than 10 minutes.
11 - 479	Use with caution - breakthrough can occur between 11 and 479 minutes.
>480	Permeation breakthrough is excellent. Permeation does not occur during the test (8 hours).
N/A	The chemical did not reach the minimum permeation rate (1 µg/cm²/min) as defined within EN 16523-1. There is a possibility for trace amounts of the chemical to permeate through the glove.
–	The permeation rate was beyond the range of the detection instruments. The permeation of the chemical through the glove film may be too high for the detector to reach a steady-state reading.

CAUTION: It's the user's responsibility to determine the applicability of these gloves for their intended use.

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ADDED PROTECTION FROM THE RISK OF CHEMICAL EXPOSURE

It's critical to protect staff from exposure to potentially hazardous chemicals and chemotherapy drugs. In addition to providing a barrier to chemical splash, microorganisms and viruses, **PURE**ZERO* HG3 Cleanroom Gloves are **now tested against 29 chemicals, 14 chemotherapy drugs and Fentanyl.**

Meets USP <800> Guidelines.

Tested against Fentanyl.

CHEMOTHERAPY DRUG RESISTANCE GUIDE[4]

Chemotherapy Agent (Concentration in mg/ml)	HALYARD* **PURE**ZERO* HG3 Light Blue Sterile Nitrile Gloves		HALYARD* **PURE**ZERO* HG3 White Sterile Nitrile Gloves	
	Minimum Breakthrough Detection Time (minutes)	Average Steady State Perm. Rate (µg/cm²/min)	Minimum Breakthrough Detection Time (minutes)	Average Steady State Perm. Rate (µg/cm²/min)
Carmustine (BCNU) (3.3)	44.6	0.21	158.5	0.06
Cisplatin (1.0)	>240	N/A	>240	N/A
Cyclophosphamide (20.0)	>240	N/A	>240	N/A
Dacarbazine (10.0)	>240	N/A	>240	N/A
Doxorubicin HCL (2.0)	>240	N/A	>240	N/A
Etoposide (20.0)	>240	N/A	>240	N/A
Fluorouracil (50.0)	>240	N/A	>240	N/A
Ifosfamide (50.0)	>240	N/A	>240	N/A
Methotrexate (25.0)	>240	N/A	>240	N/A
Mitomycin C (0.5)	>240	N/A	>240	N/A
Mitoxantrone (2.0)	>240	N/A	>240	N/A
Paclitaxel (6.0)	>240	N/A	>240	N/A
Thiotepa (10.0)	129.2	0.03	>240	N/A
Vincristine (1.0)	>240	N/A	>240	N/A
Additional Tests				
Fentanyl Citrate Injection, 100 mcg/2mL	>240	N/A	>240	N/A

Use the rating system below to determine the chemotherapy compatibility for exposure:

<10	Not recommended for use - breakthrough can occur in less than 10 minutes.
11 to 239	Use with caution - breakthrough can occur between 11 and 239 minutes.
>240	Recommended for protection - no breakthrough up to 240 minutes.
N/A	The chemotherapy drug did not reach the minimum permeation rate (0.01 µg/cm²/min) as defined within ASTM D6978.

CAUTION: It's the user's responsibility to determine the applicability of these gloves for their intended use with chemotherapy drugs.

DEFINITION OF TERMS

Breakthrough time: The time required for the test chemical to be detected on the inside of the glove. Essentially, this is the amount of time that the glove can resist a chemical when the glove is fully immersed in the chemical.

Permeation: The process where chemicals, such as liquids, gases and vapors can pass through a glove film (or other PPE interfaces) without penetrating directly through a pinhole, tear or other visible opening.

Permeation rate: The flowrate of the chemical after the chemical breaks through the inside of the glove. It is measured in amount per surface area of the glove per time (µg/cm²/min).

Contact your Sales Representative for additional chemical and chemotherapy drug testing information.

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HG3 Nitrile Cleanroom Gloves

CHEMICAL RESISTANCE GUIDE[5]

	HALYARD* **PURE**ZERO* HG3 Light Blue Sterile Nitrile Gloves		HALYARD* **PURE**ZERO* HG3 White Sterile Nitrile Gloves	
Chemical (Concentration %)	Minimum Breakthrough Time (minutes)	Permeation Rate (µg/cm²/min)	Minimum Breakthrough Time (minutes)	Permeation Rate (µg/cm²/min)
1-Butanol (99)	80.7	1.8	85.6	4.0
Acetic Acid (30)	>480	<1.0	>480	<1.0
Acrylamide (40)	>480	<1.0	>480	<1.0
Benzalkonium Chloride (1)	>480	<1.0	>480	<1.0
Chloroform (70)	0	N/A	0	N/A
Citric Acid (30)	>480	<1.0	>480	<1.0
Citric Acid (70)	>480	<1.0	>480	<1.0
Cyclohexane (99)	>480	<1.0	147.8	2.7
Didecyldimethylammonium Chloride (0.04)	>480	<1.0	>480	<1.0
Dimethylformamide (99)	0	N/A	0	N/A
Dimethyl Sulfoxide (99)	5.0	3.2	10.7	N/A
Ethanol (70)	18.6	1.4E+01	19.1	1.2E+01
Ethanol (99)	8.8	8.8E+01	16.4	2.5E+01
Ethidium Bromide (1)	>480	>1.0	>480	<1.0
Glycolic Acid (10)	>480	<1.0	>480	<1.0
Glutaraldehyde (50)	>480	<1.0	>480	<1.0
Hydrazine Monohydrate (55)	>480	<1.0	>480	<1.0
Hydrochloric Acid (30)	>480	<1.0	7.7	1.9E+01
Isopropyl Alcohol (70)	155.3	2.1	189.5	1.0
Isopropyl Alcohol (99)	87.0	5.4	105.3	3.5
Methanol (99)	0	N/A	7.7	1.9E+01
Nitric Acid (65)	11.7	1.6E+03	12.0	1.7E+02
Peracetic Acid (5)	>480	<1.0	>480	<1.0
Phosphoric Acid (70)	>480	<1.0	>480	<1.0
Sodium Hydroxide (50)	>480	<1.0	>480	<1.0
Sodium Hypochlorite (10-13%)	>480	<1.0	>480	<1.0
Spor-Klenz (N/A)	>480	<1.0	>480	<1.0
Sulfuric Acid (50)	>480	<1.0	>480	<1.0
Sulfuric Acid (99)	10.8	N/A	11.0	N/A

Use the rating system below to determine the chemical compatibility for exposure:

<10	Not recommended for use - breakthrough can occur in less than 10 minutes.
11 - 479	Use with caution - breakthrough can occur between 11 and 479 minutes.
>480	Permeation breakthrough is excellent. Permeation does not occur during the test (8 hours).
N/A	The chemical did not reach the minimum permeation rate (1 µg/cm²/min) as defined within EN 16523-1. There is a possibility for trace amounts of the chemical to permeate through the glove.
–	The permeation rate was beyond the range of the detection instruments. The permeation of the chemical through the glove film may be too high for the detector to reach a steady-state reading.
CAUTION:	It's the user's responsibility to determine the applicability of these gloves for their intended use. Always factor in the physical performance requirements of the job or application when selecting a glove that is used with chemicals.

HG3 GLOVE SELECTION GUIDE

	Description	Designed for	Max Particle Count	ISO Class	Finish	Fingertips	Double Donning	Size Range	Fingertip Thickness	Case Count
NON-STERILE	HALYARD* **PURE**ZERO* HG3 White Nitrile Gloves, 12", 305 mm	Semiconductor, Pharmaceutical, Medical Device Manufacturing	<950	ISO Class 3 or higher and Grade B/C/D cleanrooms	Tacky Grip	Textured Fingertips	Recommended for Outer Glove	XS-XL	0.16mm (6.3 mil)	1000/cs Ambidextrous
NON-STERILE	HALYARD* **PURE**ZERO* HG3 Light Blue Nitrile Gloves, 12", 305 mm	Semiconductor, Pharmaceutical, Medical Device Manufacturing	<1200	ISO Class 3 or higher and Grade B/C/D cleanrooms	Tacky Grip	Textured Fingertips	Recommended for Outer Glove	XS-XL	0.10mm (3.9 mil)	1500/cs Ambidextrous
NON-STERILE	HALYARD* **PURE**ZERO* HG3 White SGX* Nitrile Gloves, 12", 305 mm	Semiconductor, Pharmaceutical, Medical Device Manufacturing	<950	ISO Class 3 or higher and Grade B/C/D cleanrooms	Smooth Grip	Textured Fingertips	Outer or Under	XS-XL	0.16mm (6.3 mil)	1000/cs Ambidextrous
STERILE	HALYARD* **PURE**ZERO* HG3 Light Blue Sterile Nitrile Gloves, 12", 305 mm	Pharmaceutical, Biotechnology, Sterile Compounding, Aseptic Processing	<1200	ISO Class 3 or higher and Grade A/B cleanrooms	Smooth Grip	Textured Fingertips and Palms	Outer or Under	6.0 6.5 7.0 7.5 8.0 8.5 9.0 10.0	0.10mm (3.9 mil)	300 pairs/cs Hand Specific
STERILE	HALYARD* **PURE**ZERO* HG3 White Sterile Nitrile Gloves, 12", 305 mm	Pharmaceutical, Biotechnology, Sterile Compounding, Aseptic Processing	<950	ISO Class 3 or higher and Grade A/B cleanrooms	Smooth Grip	Textured Fingertips and Palms	Outer or Under	6.0 6.5 7.0 7.5 8.0 8.5 9.0 10.0	0.16mm (6.3 mil)	200 pairs/cs Hand Specific

Applies to all PUREZERO* Gloves: Accelerator-Free[1] Static Dissipative in Use[2] Compliant with the REACH regulation AQL 1.0 CE 2797 (PPE Cat. III) ISO 374-5:2016 VIRUS

ISO 374-1/Type B KTPJ — **White Non-Sterile and White Sterile**

ISO 374-1/Type B KTP — **Light Blue Non-Sterile**

ISO 374-1 / Type B KTJ — **White SGX* and Light Blue Sterile**

For more information or samples, contact your distributor or visit: www.purezerogloves.com

1 Not formulated with these commonly used vulcanizing chemicals: Sulfur, Thiurams, Thiaxoles, Guanidines, Carbamates, Amines, Thiophosphates, and Sulfenamides.
2 Tested against ANSI/ESD STM15.1-2019.
3 Tested per ASTM D6319, EN 455-2
4 Tested per ASTM D6978, Standard Practice Assessment of Resistance of Medical Gloves to Permeation by Chemotherapy Drugs. The testing conditions used are intended to approximate the worst case conditions for use. Testing was conducted on a single layer glove material.
5 Gloves tested for chemical resistance per EN 16523-1. This European Standard specifies a test method for the determination of the resistance of protective clothing, gloves and footwear materials to permeation by potential hazardous liquid chemicals under the condition of continuous contact. The testing conditions used are intended to approximate the worst case conditions for use. Testing was conducted on a single layer glove material.

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