

**CHEMOTHERAPY QUALIFIED**  
PERSONAL PROTECTIVE EQUIPMENT



# CAREfully TESTED FOR YOUR PROTECTION





## CHEMOTHERAPY QUALIFIED

When it comes to chemotherapy drugs, there's no such thing as a 'safe level of exposure'.

Unintended exposure may result in organ damage, impaired fertility, fetal malformation, and cancer<sup>2, 11</sup>.

That's why having the proper Personal Protective Equipment (PPE) and protection is essential when preparing and handling chemotherapy drugs, enabling you to feel safe enough to focus on caring for your patients.



### Protection while Preparing

From weighing and mixing compounds to contacting dangerous residues on equipment, the process of compounding and packaging chemotherapy drugs increases your risk for exposure. That's why the European regulatory requirements are so rigorous<sup>1, 3, 4, 5</sup>:

- Prepare chemotherapy drugs within the confines of a biological safety cabinet
- If no biological safety cabinet is available, gloves, safety glasses, and an impervious gown must be worn
- To minimise exposure from spills and splashes, gowns must completely cover the torso, arms and legs
- In some cases, preparation respiratory and eye protection may be required

### Protection Against Spillage

Chemotherapy drug spills must be quickly contained and immediately cleaned. This needs to be done by a healthcare professional wearing appropriate protection or coverage<sup>1, 4, 5</sup>, including:

- Gloves
- Impervious gown intended for use with chemotherapy drugs
- Hair cover (e.g., bouffant cap)
- Shoe covers
- Eye protection
- Respiratory protection

### Protection during Surgical Procedures

Chemotherapy drugs can represent a significant health risk to operating theatre staff. When a patient has received chemotherapy and requires surgery, the surgical team involved requires protection against exposure to potentially carcinogenic fluids that may cause chromosomal damage. A critical consideration for surgery is that the devices used in operating theaters are compliant with the regulatory requirements for medical devices per the Medical Device Regulation (EU) 2017/745.

### Protection Recommendations<sup>1</sup>

Activity	Gloves	Gowns	Eye Protection <sup>i</sup>	Respiratory Protection <sup>i</sup>	Head & Shoe Covering
Preparation	✓	✓	✓ <sup>ii</sup>	✓ <sup>ii</sup>	✓
Spillage	✓	✓	✓	✓	✓
Surgery	✓ <sup>iii</sup>	✓ (surgical gowns)	✓ (face shields)	✓	✓

<sup>i</sup> Risk of splashing, spraying and aerosols

<sup>ii</sup> If preparation is not in closed containment: Laminar flow safety cabinet

<sup>iii</sup> Chemotherapy qualified sterile surgical gloves

HALYARD\* offers a comprehensive portfolio of chemotherapy qualified gloves, gowns, and masks. The following information will help you select the right PPE for your chemotherapy needs.



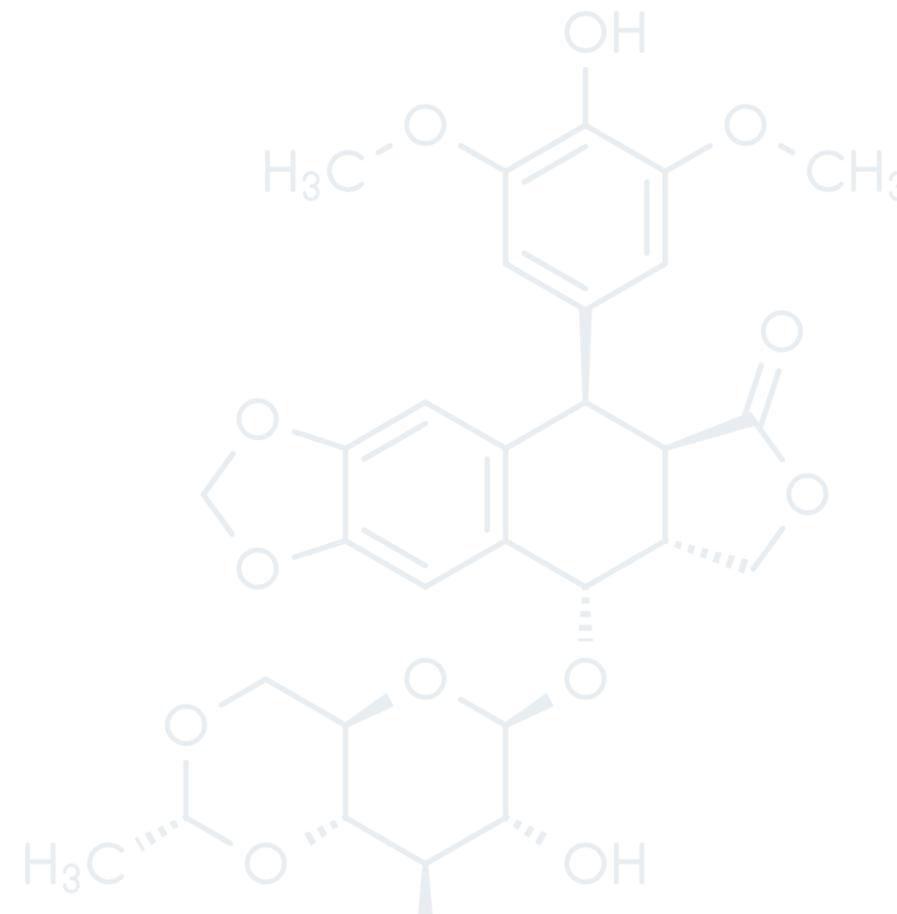
**CHEMOTHERAPY QUALIFIED GLOVES**



**CHEMOTHERAPY QUALIFIED GOWNS**



**FACIAL PROTECTION AND APPAREL**







## CHEMOTHERAPY QUALIFIED SURGICAL GOWNS

HALYARD\* quality offers a balance between comfort and clinically superior protection.



Tested against more than **52** chemo drugs

### AERO CHROME\* Breathable Performance Surgical Gown GET TOTALLY COMFORTABLE WITH HIGH LEVEL PROTECTION.

AERO CHROME\* Breathable Performance Surgical Gowns combine comfort, softness and breathability with high level of protection against fluids and pathogens†

#### LIGHT, COOL COMFORT. HIGHEST LEVEL PROTECTION.

- Meets the European standard EN 13795-1 :2019
- Meets AAMI Level 4 standard for surgical gowns, providing the highest level of fluid and microbial protection in the critical zones.
- Soft, light and breathable fabric keeps staff protected yet cool and comfortable.
- Excellent ignition resistance, with the highest rating for protection against ignition with surgical lasers.
- Low linting to help reduce the risk of wound contamination and infection.

### AERO CHROME\* Surgical Gown Performance During Chemotherapy Drug Tests<sup>iii</sup>

Chemotherapy Drugs Breakthrough time (min)	AERO CHROME*
Arsenic Trioxide(1 mg/ml)	>240
Azacitidine (25 mg/ml)	>240
Bendamustine (5 mg/ml)	>240
Bleomycin (15 mg/ml)	>240
Bortezomib (1 mg/ml)	>240
Busulfan (6 mg/ml)	>240
Carboplatin (10 mg/ml)	>240
Carfilzomib (2 mg/ml)	>240
Cisplatin (1 mg/ml)	>240
Cytarabine (100 mg/ml)	>240

<sup>iii</sup> Complete list of chemotherapy drug testing available upon request.



## CHEMOTHERAPY QUALIFIED PROTECTIVE GOWNS

The HALYARD\* range of impervious gowns offers protection against the risk of chemotherapy drug exposure.



Tested against more than **52** chemo drugs

### Impervious Gown Performance During Chemotherapy Drug Tests<sup>iii</sup>

Chemotherapy Drugs Breakthrough time (min)	IMPERVIOUS COMFORT GOWN
Azacitidine (25 mg/ml)	>480
Bendamustine (5 mg/ml)	>480
Bleomycin (15 mg/ml)	>480
Bortezomib (1 mg/ml)	>480
Carboplatin (10 mg/ml)	>480
Carmustine (3.3 mg/ml)	20
Cisplatin (1 mg/ml)	>480
Etoposide (20 mg/ml)	>480
Thiotepa (10mg/ml)	>480

<sup>iii</sup> Complete list of chemotherapy drug testing available upon request.

### The HALYARD\* Gown Advantage

- Proven performance with chemotherapy drugs
  - Tested against over 50 different agents in accordance with the ASTM-D6978 or ASTM F739-12 standard<sup>ii</sup>
- CE marked per Regulation (EU) 2017/745 on Medical Devices. Class I device
- Completely covers body and arms for total protection during chemotherapy drug preparation, administration, spillage, and waste disposal
- Impervious comfort gown with a breathable, or open-back design for increased comfort
- Knitted cuff or thumb hook wrist closure options fit securely under gloves during donning and removal



## FACIAL PROTECTION AND APPAREL

Tested against **7** chemotherapy drugs



### The Many Advantages of Using HALYARD\* Medical Masks or Respirators

- HALYARD\* FFP2 NR Filtering half mask are approved and tested to protect against 7 Chemotherapy drugs, ideal for use in the operating room for surgical procedures requiring protection against chemotherapy drugs.
- Full range of EN 149:2001 + A1:2009 compliant FFP respirators offering unparalleled protection against aerosolized particles.
- Respirators are CE marked per EU Regulation 2016/425 on Personal Protective Equipment.
- HALYARD\* FFP2 NR Filtering Half Mask are compliant with EN 14683:2019 standard as a Type IIR surgical mask. The mask exceeds the EN 14683 requirements for splash resistance pressure providing up to 160 mmHg / 21,3 kPa splash protection.
- Innovative pouch-style design means a larger breathing chamber, keeping the respirator off the face for increased comfort and ease-of-speech
- Two strong, ultrasonically bonded headbands ensure a tight facial seal and prevents leakage around the mask edges.
- Nose piece easily conforms to facial contours, securing the mask across the bridge of the nose for maximum protection and a universal fit.
- Composed of Latex- and DEHP-Free materials reducing the likelihood of skin irritation and allergies.

#### SAFEVIEW\* EYEWEAR

Our popular eye shields come in a full range of bright coloured frames for users to choose from. Fog-resistant, lightweight and disposable, SAFEVIEW\* eyewear can be worn over regular eyeglasses.

Available as pre-assembled eyeglasses, or as frames and lenses which may be purchased separately. All parts are natural rubber latex and DEHP-free.



#### FACE SHIELDS

HALYARD\* Face Shields feature a wide elastic headband to keep the shield comfortably in place on the wearer's head. The foam front band and fog-resistant clear shield provides protection with maximum visibility.



#### HEADWEAR & FOOTWEAR

HALYARD\* offers a variety of protective headwear and footwear, featuring innovative fabrics and styling to deliver the right amount of coverage for the task.



## ITEM INDEX

### Gloves



Description	Code	Size	Items/box	Boxes/case	Case count	CE marked per PPE Regulation (EU) 2016/425	CE marked per Medical Device Regulation (EU) 2017/745
<b>PURPLE NITRILE* MAX EXAM GLOVES</b> Length > 400 mm	47195	Small	50	8	400	PPE CAT III	Class I
	47196	Medium	50	8	400	PPE CAT III	Class I
	47197	Large	50	8	400	PPE CAT III	Class I
	47198	X-Large	50	8	400	PPE CAT III	Class I
<b>PURPLE NITRILE-XTRA* EXAM GLOVES</b> Length > 310 mm	50600M	X-Small	50	10	500	PPE CAT III	Class I
	50601M	Small	50	10	500	PPE CAT III	Class I
	50602M	Medium	50	10	500	PPE CAT III	Class I
	50603M	Large	50	10	500	PPE CAT III	Class I
<b>PURPLE NITRILE* EXAM GLOVES</b> Length > 240 mm	50604M	X-Large	50	10	500	PPE CAT III	Class I
	52000M	X-Small	100	10	1000	PPE CAT III	Class I
	52001M	Small	100	10	1000	PPE CAT III	Class I
	52002M	Medium	100	10	1000	PPE CAT III	Class I
<b>STERLING* NITRILE-XTRA* EXAM GLOVES</b> Length > 310 mm	52003M	Large	100	10	1000	PPE CAT III	Class I
	52004M	X-Large	90	10	900	PPE CAT III	Class I
	44286	X-Small	100	10	1000	PPE CAT III	Class I
	44287	Small	100	10	1000	PPE CAT III	Class I
<b>STERLING* NITRILE EXAM GLOVES</b> Length > 240 mm	44288	Medium	100	10	1000	PPE CAT III	Class I
	44289	Large	100	10	1000	PPE CAT III	Class I
	44290	X-Large	100	10	900	PPE CAT III	Class I
	13938	X-Small	200	10	2000	PPE CAT III	Class I
	13940	Small	200	10	2000	PPE CAT III	Class I
	13941	Medium	200	10	2000	PPE CAT III	Class I
	13942	Large	200	10	2000	PPE CAT III	Class I
	13943	X-Large	170	10	1700	PPE CAT III	Class I

### Gowns



Description	Code	Colour/Size	Case count	CE marked per Medical Device Regulation (EU) 2017/745
<b>AERO CHROME* Breathable Performance Surgical Gown Sterile</b>	48395	Blue / Large	30	Class Is - High performance per EN 13795-1:2019
	48397	Blue / Large, X-Long	30	
	48396	Blue / X-Large	28	
	48398	Blue / X-Large, X-Long	30	
	48403	Blue / XX-Large	28	
	48402	Blue / XX-Large, X-Long	28	
<b>AERO CHROME* Breathable Performance Surgical Gown Non-sterile</b>	48392NS	Blue / Large	40	Class I - High performance per EN 13795-1:2019
	48399NS	Blue / Large, X-Long	36	
	48393NS	Blue / X-Large	32	
	48400NS	Blue / X-Large, X-Long	32	
	48394NS	Blue / X-Large	32	
<b>Impervious Comfort Gown Non-sterile</b>	48401NS	Blue / XX-Large, X-Long	30	Class I
	69600	Knit Cuffs/Blue/Large	100	
	69601	Knit Cuffs/Blue/XX-Large	100	
	69602	Thumbhooks/Blue/Large	100	
	69603	Thumbhooks/Blue/XX-Large	100	



## FFP Respirators

Description	Code	Colour/Size	Items/box	Boxes/case	Case count	CE marked per Medical Device Regulation (EU) 2017/745	CE marked per PPE Regulation (EU) 2016/425
<b>FFP1 NR FILTERING HALF MASK</b>	62354	White	50	6	300		PPE CAT III
<b>FFP2 NR FILTERING HALF MASK</b>	62408	Yellow	50	6	300	Class I - EN 14683 Type IIR	PPE CAT III
<b>FFP3 NR FILTERING HALF MASK WITH VALVE</b>	62360	White	20	12	240		PPE CAT III

## Eye Protection



Description	Code	Colour/Size	Items/box	Boxes/case	Case count	CE marked per Medical Device Regulation (EU) 2017/745	CE marked per PPE Regulation (EU) 2016/425
<b>Face Shield</b>	41204	Full Length	--	--	40	Class I	
	41205	Three-Quarter Length	--	--	40	Class I	
<b>SAFEVIEW* Eyewear</b>	SV50A	SAFEVIEW* Assembled Glasses	10	5	50		PPE CAT II
	SV100F	SAFEVIEW* Frames	10	10	100		PPE CAT II
	SV250L	SAFEVIEW* Replacement Lenses	25	10	250		PPE CAT II



## Headwear and footwear



Description	Code	Colour/Size	Items/box	Boxes/case	Case count	CE marked per Medical Device Regulation (EU) 2017/745
<b>Bouffant cap</b>	69801	Blue/Large	100	5	500	Class I
<b>Surgical Cap</b>	69240	Knit Cuffs/Blue/XX-Large	100	3	300	Class I
<b>Surgical Hood</b>	69110	Thumbhooks/Blue/Large	100	3	300	Class I
<b>Heavy Duty Shoe Cover</b>	69551	Blue/Universal	100	3	300	Class I
<b>X-TRA TRACTION* Shoe Cover</b>	69252	Blue/Universal	100	3	300	Class I
<b>ANKLE GUARD* Shoe Cover</b>	69253	Blue/Universal	90	3	270	Class I
	69353	Blue/X-Large	90	3	270	Class I
<b>HI-GUARD* Regular Full-Coverage Boot</b>	69571	Blue/Universal	50	3	150	Class I
	69671	Blue/X-Large	50	3	150	Class I



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- † ASTM International, 2018. ASTM D6978 - 05(2013) Standard Practice for Assessment of Resistance of Medical Gloves to Permeation by Chemotherapy Drugs. West Conshohocken, PA.
- †† ASTM International, 2018. ASTM F739-12e1, Standard Test Method for Permeation of Liquids and Gases through Protective Clothing Materials under Conditions of Continuous Contact. West Conshohocken, PA.
- ††† When wearing protective apparel during contact with other chemicals and reagents, users should always review the corresponding material safety data sheets to determine the required level of protection the apparel should provide.
- ‡ Meets ASTM1671 in the critical zones (ties, fabric, sleeve seams), per AAMI PB70 PB70: 2012 AAMI Level 4 Hydrohead testing, ASTM 1671, basis weight of fabric and MOCON Moisture Breathability, AAMI PB70 PB70 Level 4 Meets AAMI Level 4, AAMI PB70, EN13795 High Performance Per ISO 11810 Per Particle Release Association of Perioperative Registered Nurses (AORN), Standards, Recommended Practices and Guidelines, 2006

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