



**Certified
safety and
protection**

Help minimise your risk to chemical exposure

From stock-keepers to waste disposal personnel, chemotherapy drugs are handled by a wide range of healthcare staff throughout the product life cycle.

Handling chemotherapy drugs brings risk, including possible cancer inducement through normal tissue damage. This may occur as a result of frequent exposure to the cytotoxic products and drugs that target cancer cells in order to kill them.

This exposure can occur in many places in a healthcare facility (e.g. radio-imaging, operating theatres, sterilisation areas, chemotherapy preparation and patient rooms). Training and special products developed to help staff best manage these risks make up the standardised approach for managing these spaces and substances. Therefore, it is essential that your facility is prepared to protect staff by providing the correct protective gear to help keep them safe from harmful agents they may encounter on the job.



12.7 million
healthcare workers in
Europe are potentially
exposed to hazardous drugs
annually.¹

Exposure to hazardous drugs
produces more than
2,220
new leukaemia cases in
Europe alone each year.²



Medline is dedicated to helping you ensure a high quality of life for both patients and healthcare staff. This is why we have developed specific product lines that are designed to protect those who come in contact with these harmful agents.

For a product to be considered protective against chemotherapy, that item must be:

- Certified as personal protective equipment (PPE) Category III
- Tested in critical zones, for resistance to chemotherapy, under European Union directive, EN 14605: 2005+A1:2009 Type [PB] - 4.

Beyond this, we also strive to help you provide your staff a level of protection that exceeds the basic requirements. We achieve this by testing chemotherapy drugs on our entire product range, in both critical and non- critical areas. We understand that full, certified coverage, with impervious materials, such as polyethylene film or trilaminate fabrics, is essential in providing the level of protection necessary in contexts of exposure to these types of chemicals.



What does chemotherapy protection look like?



All of our surgical gloves are tested for use with at least 18 chemotherapy drugs, and the vast majority of our portfolio is tested for use with at least 24 chemotherapy drugs.

Our PPE Cat III-certified Prevention Plus Surgical Gown is designed to protect against cytotoxic drugs.

Prevention Plus Boot Covers, designed to completely cover and protect staff's feet from chemical splashes.

The solution that anticipates your needs

Medline offers the following sterile and non-sterile products that can be used in multiple combinations to help you meet your facility's unique chemotherapy protection-based needs.

EN14605:2005+
A1: 2009 Type PB [4]



Gowns

Surgical gowns

Prevention Plus surgical gowns offer dual-certified (Medical Devices Directive [MDD] and PPE) improved technology with a three-layered material. This material is designed to provide a high level of fluid protection and protection against chemotherapy drugs. The use of a fully trilaminate material, along with knitted cuffs and a hook-and-loop closure, not only guarantees fit and comfort for the wearer, but also offers complete protection in both the critical and non-critical areas on the gown. The sterile gown can be used for hyperthermic intraperitoneal chemotherapy (HIPEC) surgeries and in the clean room for drug compounding and containment.

Item number	Description	Packaging
DYNJPE2301P	Surgical gown, chemotherapy, blue, L, 114 cm, sterile	24/cs, with wrap and hand towels (2)
DYNJPE2302P	Surgical gown, chemotherapy, blue, XL, 142 cm, sterile	24/cs, with wrap and hand towels (2)
598CE	Sleeves, chemotherapy, blue, 14 x 62 cm, sterile	80/cs

Isolation gowns

Prevention Plus isolation gowns are certified as PPE Category III Type PB [4], for partial body protection, according to PPE Regulation 2016:425. They are tested against various common chemotherapy drugs.*The Prevention Plus material is designed to be very comfortable, thanks to its breathable properties. The gowns are equipped with a hook-and-loop neck closure, knitted cuffs and waist ties to remain securely in place during use.

Item number	Description	Packaging
NONE27457	Isolation gown, chemotherapy, blue, knit cuffs, L	10/bag, 30/cs
NONE27457XL	Isolation gown, chemotherapy, blue, knit cuffs, XL	10/bag, 30/cs

Chemotherapy gowns are tested against the following chemotherapy drugs, per ASTM F739-12:

- Dacarbazine
- Carmustine (BiCNU)
- Cyclophosphamide (Cytoxan)
- Doxorubicin hydrochloride
- 5-Fluorouracil
- Cisplatin
- Etoposide (Toposar)
- Paclitaxel (Taxol)
- Thiotepa
- Mitomycin C
- Vincristine sulfate

Medline's chemotherapy gowns are tested further, in accordance with EN 14126:2003 Type PB[4]-B, for certified protection against infective agents, including viruses.

Gloves

Medline Exam and Surgical Gloves are tested against various chemotherapy drugs.

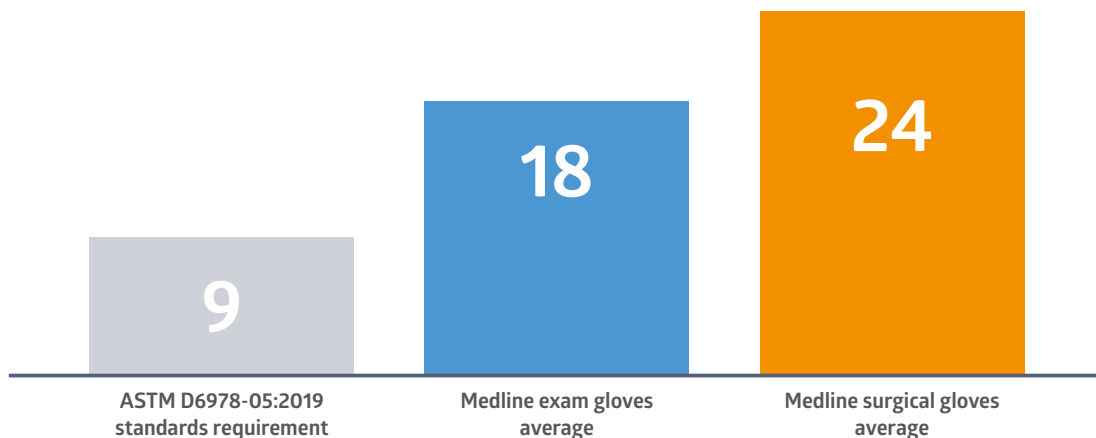
Chemotherapy drugs belong to a category of chemical compounds created and formulated specifically to impede the proliferation or eliminate swiftly multiplying cancer cells within the body. Chemotherapy handling involves the preparation, administration, and disposal of chemotherapy drugs, which play a crucial role in the treatment of various cancers. Due to the intrinsic harm they pose to human cells, it is advisable to steer clear of these compounds.

Chemo-rated gloves: How many chemotherapy drugs?

As required by the American Society for Testing and Materials (ASTM) Standard D6978-05:2019, 9 is the number of required chemotherapy drugs to test for chemo-rated gloves.

What about Medline exam and surgical gloves?

Medline gloves testing goes beyond the standard, covering a minimum of 18 tested drugs, with an average of 24 for the vast majority with the portfolio.



Standards ASTM D6978-05:2019 and EN16523-1:2015 (EN 373-3:2003)

Of the two standards, ASTM D6978-05:2019 is the more stringent, as it:

- Makes users aware of glove performance when challenged by chemotherapy drugs
- Features a permeation limit that is more sensitive, since it is set at 100th of EN16523-1:2015
- Ensures the evaluation of the thinnest part of the glove, which is most susceptible to chemotherapy drug-based risk
- Includes a testing temperature that is closer to that of the human hand.



EN16523-1:2015



ASTM D6978-05:2019

	EN16523-1:2015	ASTM D6978-05:2019
Test chemicals	A minimum of 1 chemical	A minimum of 9 chemotherapy drugs
Permeation limit	Breakthrough when the permeation rate has reached 1.00 ug/cm ² /min.	Breakthrough when the permeation rate has reached 0.01 ug/cm ² /min.
Thickness required	Sample taken from the palm of the glove (> 400-mm length; additional samples taken from cuff)	Sample taken either from the palm or the cuff, whichever is thinner
Test temperature	Test conducted at 23° ± 1° C	Test conducted at 35° ± 2° C

Surgical gloves

Medline's surgical gloves are class IIa sterile medical devices and category III PPE. They are designed to help ensure the protection patients and healthcare providers. We offer a diverse portfolio with gloves for every need, including latex- and accelerator-free options. Additionally, all our gloves are tested for use with chemotherapy drugs.

Item number	Colour	Description	Intended use	Size*	Material
MSG55xx	Dark green	Sterile surgical glove, latex, powder-free	Cardiac, trauma, orthopaedics, high-risk procedures; underglove or standalone glove	5.5 – 9	Latex
MSG58xx	Light brown	Sterile surgical glove, latex, powder-free	General surgery, neurosurgery, vascular surgery, plastic surgery, ophthalmology	5.5 – 9	Latex
MSG59xx	Cream	Sterile surgical glove, latex, powder-free	General surgery; top layer when double gloving	5.5 – 9	Latex
MSG72xx	Cream	Sterile surgical glove, latex, powder-free	General surgery	5.5 – 9	Latex
MSG63xx	Light brown	Sterile surgical glove, synthetic, neoprene, powder-free	General surgery	5.5 – 9	Neoprene
MSG65xx	Dark green	Sterile surgical glove, synthetic, neoprene, powder-free	General surgery, accelerator-free; ideal for skin sensitivities and use as underglove or standalone glove	5.5 – 9	Neoprene
MSG90xx	Cream	Sterile surgical glove, polyisoprene, powder-free	General surgery	5.5 – 9	Polyisoprene
MSG92xx	Dark green	Sterile surgical glove, polyisoprene, powder-free	Cardiac, trauma, orthopaedics, high-risk procedures; underglove or standalone glove	5.5 – 9	Polyisoprene
MSG95xx	Cream	Sterile surgical glove, polyisoprene blend, powder-free	General surgery	5.5 – 9	PI Blend
MSG96xx	Cream	Sterile surgical glove, polyisoprene, powder-free	General surgery, neurosurgery, vascular surgery, plastic surgery, ophthalmology	5.5 – 9	Polyisoprene

*half sizes available

Medline offers a product for every need: Latex-based, latex-free and a latex-free option without chemical accelerators (MSG65xx)

Chemotherapy Permeation Results of Medline surgical gloves: Breakthrough in minutes

	Latex				Polyisoprene Blend + Neoprene			Polyisoprene		
	Signature Latex Green (MSG55xx)	Signature Latex Essential (MSG59xx)	Signature Latex Micro (MSG58xx)	Signature Latex OR (MSG72xx)	SensiCare® PI Evolution (MSG95xx)	SensiCare® Neoprene (MSG63xx)	DermAssure™ Green (MSG65xx)	SensiCare® PI (MSG90xx)	SensiCare® PI Green (MSG92xx)	SensiCare® PI Micro (MSG96xx)
Bleomycin (15 mg/ml)	>240	>240	>240	-	>240	>240	>240	>240	>240	>240
Busulfan (6 mg/ml)	>240	>240	>240	-	>240	>240	>240	>240	>240	>240
Carboplatin / Paraplatin (10 mg/ml)	>240	>240	>240	>240	>240	>240	>240	>240	>240	>240
Carmustine (3.3 mg/ml)	11.5	12	11.4	11.5	24.3	36.3	38.5	12.4	13.7	12.4
Cisplatin (1 mg/ml)	>240	>240	>240	>240	>240	>240	>240	>240	>240	>240
Cyclophosphamide (20 mg/ml)	>240	>240	>240	>240	>240	>240	>240	>240	>240	>240
Cytarabine (100 mg/ml)	>240	>240	>240	>240	>240	>240	>240	>240	>240	>240
Cytovene (Ganciclovir, 10 mg/ml)	-	-	-	-	-	>240	-	-	-	-
Dacarbazine (10 mg/ml)	>240	>240	>240	>240	>240	>240	>240	>240	>240	>240
Daunorubicin HCl (5 mg/ml)	-	-	-	-	-	>240	-	-	-	-
Docetaxel (10mg/ml)	-	-	-	>240	-	>240	-	-	-	-
Doxorubicin Hydrochloride (2 mg/ml)	>240	>240	>240	>240	>240	>240	>240	>240	>240	>240
Epirubicin (Ellence) (2 mg/ml)	>240	>240	>240	-	>240	>240	>240	>240	>240	>240
Etoposide (20 mg/ml)	>240	>240	>240	>240	>240	>240	>240	>240	>240	>240
Fludarabine (25mg/ml)	>240	>240	>240	-	>240	>240	>240	>240	>240	>240
Fluorouracil (50 mg/ml)	>240	>240	>240	>240	>240	>240	>240	>240	>240	>240
Gemcitabine HCl (38 mg/ml)	-	-	-	-	-	>240	-	-	-	-
Idarubicin (1 mg/ml)	>240	>240	>240	-	>240	>240	>240	>240	>240	>240
Ifosfamide (50 mg/ml)	>240	>240	>240	>240	>240	>240	>240	>240	>240	>240
Irinotecan HCl (20 mg/ml)	-	-	-	-	-	>240	-	-	-	-
Mechlorethamine HCl (1 mg/ml)	>240	>240	>240	>240	>240	>240	>240	>240	>240	>240
Melphalan (5 mg/ml)	>240	>240	>240	-	>240	>240	>240	>240	>240	>240
Methotrexate (25 mg/ml)	>240	>240	>240	>240	>240	>240	>240	>240	>240	>240
Mitomycin C (0.5 mg/ml)	>240	>240	>240	>240	>240	>240	>240	>240	>240	>240
Mitoxantrone (2 mg/ml)	>240	>240	>240	>240	>240	>240	>240	>240	>240	>240
Oxaliplatin (5 mg/ml)	-	-	-	-	-	>240	-	-	-	-
Paclitaxel (6 mg/ml)	>240	>240	>240	>240	>240	>240	>240	>240	>240	>240
Rituximab (10mg/ml)	>240	>240	>240	-	>240	>240	>240	>240	>240	>240
ThioTEPA (10 mg/ml)	13.5	22.4	12.7	13.3	32.6	49.2	38.6	12.4	13.8	22.3
Topotecan HCl (1 mg/ml)	-	-	-	-	-	>240	-	-	-	-
Trisenox (Arsenic Trioxide, 1 mg/ml)	-	-	-	-	-	>240	-	-	-	-
Vinblastine Sulfate (1 mg/ml)	-	-	-	-	-	>240	-	-	-	-
Vincristine Sulfate (1 mg/ml)	>240	>240	>240	>240	>240	>240	>240	>240	>240	>240
Vinorelbine Tartrate (10 mg/ml)	-	-	-	-	-	>240	-	-	-	-



MSG55xx



MSG59xx



MSG58xx



MSG72xx



MSG95xx



MSG63xx



MSG65xx



MSG90xx



MSG92xx



MSG96xx

Exam gloves

Medline exam gloves are class I non-sterile medical devices, per Regulation (EU) 2-17/745 and Personal Protective Regulation (EU) 2016/45 Category III. They are designed to help provide protection and ensure safety for healthcare workers and patients.

Medline offers a range of exam gloves to meet your every need. Our nitrile gloves, for example, are high-quality and tested against various chemotherapy drugs. Below are Medline's recommended solutions in terms of nitrile materials for use with chemotherapy drugs.

Item number	Brand name	Description	Length	Size	Material
MGSNxx	MediGuard Special Nitrile	Non-sterile exam glove, Nitrile, powder-free	240 mm	XS-XL	Nitrile
MDSFREE-xx	SensiCare® Free	Non-sterile exam glove, Nitrile, powder-free, accelerator-free	243 mm	XS-XL	Nitrile
MDSEXTxx	SensiCare® Extended Cuff	Non-sterile exam glove, Nitrile, powder-free, extended cuff	280 mm	XS-XL	Nitrile

Chemotherapy Permeation Results: Nitrile Exam Gloves

Nitrile - Breakthrough in minutes

	Nitrile		
	MediGuard Special Nitrile (MGSNxx)	SensiCare® Free (MDSFREE-xx)	SensiCare® Extended Cuff (MDSEXTxx)
Carboplatin (10 mg/ml)	-	>240	>240
Carmustine (BCNU) (3.3 mg/ml)	<25	20	23.3
Cyclophosphamide (Cytoxan) (20 mg/ml)	>240	98	>240
Cisplatin (1 mg/ml)	>240	>240	>240
Dacarbazine (10 mg/ml)	>240	>240	>240
Docetaxel (10 mg/ml)	>240	>198	>240
Doxorubicin Hydrochloride (2 mg/ml)	>240	>240	>240
Epirubicin (Ellence) (2 mg/ml)	-	>240	>240
Etoposide (Toposar) (20 mg/ml)	64	>240	>240
Fluorouracil (50 mg/ml)	>214	>240	>240
Irinotecan (20 mg/ml)	-	>240	>240
Leucovorin (1 mg/ml)	>240	>240	-
Methotrexate (25 mg/ml)	-	>240	>240
Mitomycin C (0.5 mg/ml)	>240	>240	>240
Oxaliplatin (5 mg/ml)	>240	>240	>240
Paclitaxel (Taxol) (6 mg/ml)	128	>240	>240
ThioTEPA (10 mg/ml)	22	46	58.2
Vincristine Sulfate (1 mg/ml)	>240	>240	>240



MGSNxx



MDSFREE-xx



MDSEXTxx



- Test reports are available upon request.
- In addition to chemotherapy drugs-based testing, our exam gloves are tested with an average of 30 additional chemicals.



Boot covers

Manufactured from Prevention Plus material, Medline's single-use impervious boot covers are designed to offer increased durability and performance. They help protect against chemotherapy drugs by covering shoes and legs, all the way up to the knees. These covers also feature a solid bottom that is made to be resistant to tears. Additionally, users can easily adjust the boot covers for the best possible fit, thanks to the convenient hook-and-loop closures. These seamless boot covers can help reduce the risk of falling, by way of the foam strips on their bottom, which are designed provide excellent traction.

Item number	Description	Packaging
NONE27348PXL	Boot covers, blue, XL	50/box, 150/cs

Chemotherapy boot covers are tested against the following chemotherapy drugs, per ASTM F739-12:

- Carmustine (BiCNU)
- Dacarbazine
- 5-Fluorouracil
- Thio- Tapa
- Cisplatin
- Mitomycin C
- Cyclophosphamide (Cytosan)
- Etoposide (Toposar)
- Vincristine Sulfate
- Doxorubicin hydrochloride
- Paclitaxel (Taxol)
- Leucovorin
- Docetaxel
- Oxaliplatin



Additional coverage

Select your ideal product combination from the listing below. Include a cap, shield, pair of glasses and respirator, in order to provide optimal coverage for your staff in high-risk chemotherapy environments.

Headwear and eye protection*

Medline's Comfort line of single-use, non-sterile bouffant caps are manufactured from a soft and breathable cluster keyback material, which features a latex-free elastic band. They are designed to be the ideal headwear with a high level of comfort. These light and roomy caps, with their round shape, fully cover all hair while the included latex-free elastic band helps ensure that the cap sits comfortably on the forehead.

Item number	Description	Packaging
FS61300	Bouffant cap, cluster keyback, green	100/box, 600/cs
FS61350	Bouffant cap, cluster keyback, blue	100/box, 600/cs

Medline's single-use face shields and reusable EN166-certified safety glasses are designed to provide optimal protection for the wearer's eyes and face against splashes. Each user is afforded maximum visibility due to the anti-fog properties of these products.

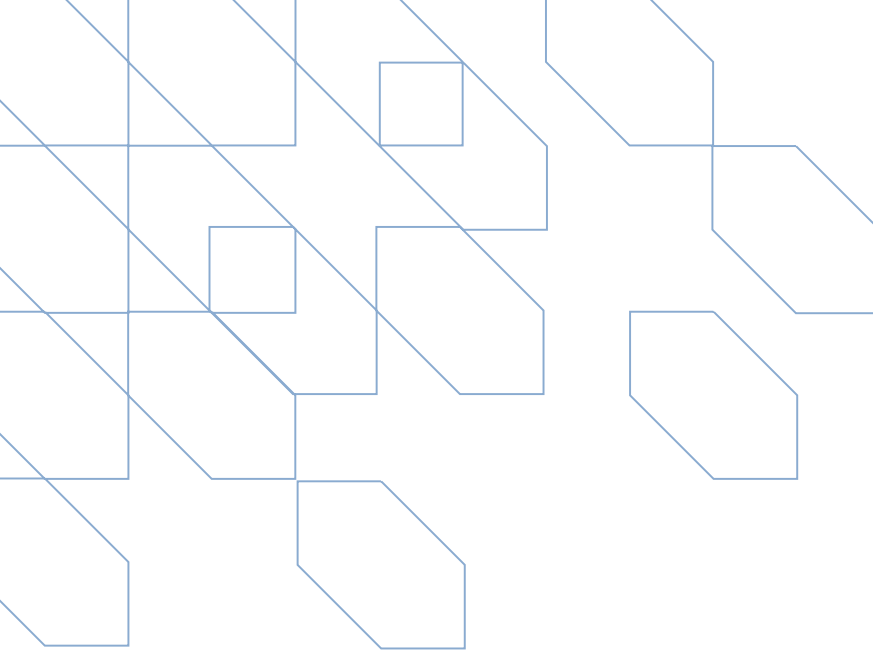
Item number	Description	Packaging
250-99-0920-EN	Safety glasses with anti-fog treatment; single lens with wide view and moulded nose for comfort, can be worn over prescription glasses, to be used in combination with NONEFS500 face shield for optimal protection	12/box, 144/cs
250-13-0020-EN	Safety glasses with anti-fog treatment; single lens with wide view and moulded nose for comfort, to be used in combination with NONEFS500 face shield for optimal protection	12/box, 144/cs
NONEFS500	Disposable face shield with anti-glare coating; full-length, elastic anti-fog foam strap, to be used in combination with 250-99-0920-EN or 250-13-0020-EN for full coverage	96/cs

Respirators*

Providing ultimate protection for wearers, Medline's respirators are designed to offer optimal breathability for comfort and EN149-certified protection against airborne particles and pathogens. Valve masks are available to help enhance comfort and breathability when worn for longer periods.

Item number	Description	Packaging
NONE24508	FFP2 respirator mask; flat-folded, polypropylene and polyester interior and exterior, dual-elastic headbands, white	20/box, 240/cs
AJ-02	FFP3 respirator mask; vertical flat fold, polypropylene interior and exterior, dual-elastic headbands, white, single-packed	25/box, 500/cs
NONE24510VF	FFP3 respirator mask with valve; flat-folded, polypropylene and polyester interior and exterior, expiration valve, dual-elastic headbands, white	10/box, 120/cs

*Please consult the manufacturer recommendations in the instructions for use (IFU)—as well as local recommendations—before considering the use of the above-listed products in chemotherapy environments. These may vary by country.



For more information, please contact your Medline account manager or visit our website: www.medline.eu/uk



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¹⁾ https://www.theparliamentmagazine.eu/articles/partner_article/efn/preventing-exposure-nurses-and-health-professionals-hazardous-drugs

²⁾ <https://www.epsu.org/article/working-towards-better-prevention-and-protection-those-working-hazardous-drugs>

Medline surgical gowns and sleeves are class I sterile medical devices.  Medline International France SAS
5 Rue Charles Lindbergh
44110 Châteaubriant, France  2797 (BSI NL)

Surgical gloves are class IIa medical devices.   Medline International France SAS
5 Rue Charles Lindbergh
44110 Châteaubriant, France  2797 (BSI NL)

Exam gloves, boot covers and headwear are class I non-sterile medical devices.  Medline International France SAS
5 Rue Charles Lindbergh
44110 Châteaubriant, France 

Surgical gowns, sleeves, surgical gloves, exam gloves, boot covers and headwear are intended to be used by healthcare professionals. Before use, consult instructions and precautions on the corresponding labelling.

We reserve the right to correct errors that may occur in this brochure.

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