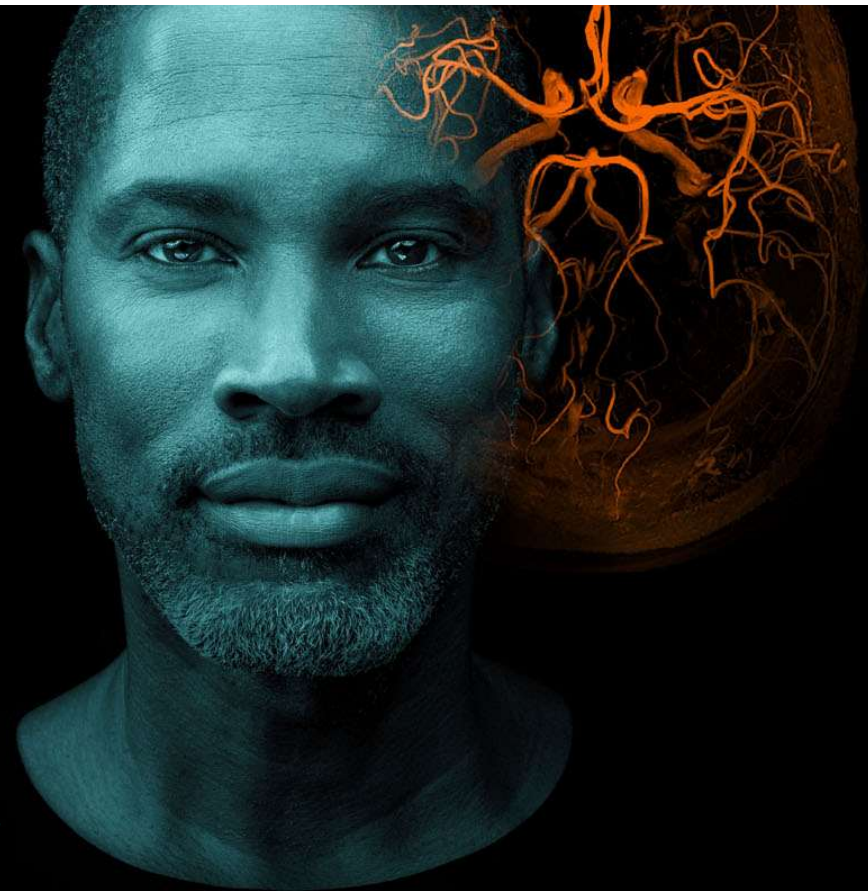
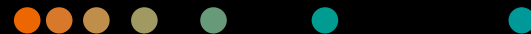


# Preventing contaminated medical devices in the context of COVID-19

Recommendations

X-ray Products



# X-ray Products Overview

According to the WHO COVID-19 information center:

“People can catch COVID-19 from others who have the virus. The disease can spread from person to person through small droplets from the nose or mouth which are spread when a person with COVID-19 coughs or exhales. These droplets land on objects and surfaces around the person. Other people then catch COVID-19 by touching these objects or surfaces, then touching their eyes, nose or mouth. People can also catch COVID-19 if they breathe in droplets from a person with COVID-19 who coughs out or exhales droplets.”<sup>1</sup>

In this context, patients infected with COVID-19 which undergo exams in medical devices might transmit the disease via contamination of the systems surfaces and therefore **disinfecting the systems after each patient is recommended.**

<sup>1</sup> See Q&A on coronaviruses (COVID-19), <https://www.who.int/news-room/q-a-detail/q-a-coronaviruses>, 26<sup>th</sup> March 2020

# X-ray Products Overview

## Recommendations

- To date, the recommendations of the existing risk assessment apply. Generally used disinfectants have to be effective against the COVID-19 virus. Check list of disinfectants that meet EPA's criteria for use against SARS-CoV-2 and its label for specific instructions for inactivation and follow label instructions for product use (for countries that do not follow EPA recommendation, local environmental protection agencies recommendation apply).<sup>1,2</sup>
- All parts of objects that could potentially come into contact with patients and medical staff have to be disinfected.
- All local hygiene instructions (hospital) must be followed. These should meet at least our recommendations.
- Please follow the proper cleaning instructions provided in the operator's manual.

## Caution

Please note that some cleaning agents can cause damage to system components and accessories, a specific list of recommendation for different modalities can be found in the instruction for use of the medical device.

Do not pour cleaning fluid onto surfaces and do not spray fluids - always use a damp cloth for cleaning.

Please contact your local Siemens Healthineers organization for further details.

<sup>1</sup> See EPA / US, <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>, 26<sup>th</sup> March 2020

<sup>2</sup> See RKI / Germany, [https://www.rki.de/DE/Content/InfAZ/N/Neuartiges\\_Coronavirus/Hygiene.html](https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Hygiene.html), 26<sup>th</sup> March 2020

# Safety Instructions for Radiography & Mobile Generator Products

## CAUTION

Use of harsh cleaning agents, liquids, or sprays.

### Risk of electrical hazard or damage to the system

- **Use only substances for cleaning and disinfection, which are recommended.**
- Do not let cleaning liquids seep into the openings of the system (for example air openings, gaps between covers).
- Observe the cleaning and disinfection instructions.

## CAUTION

Inadequate cleaning and disinfection

### Risk of infection

- Clean and disinfect all contaminated surfaces and all parts which may come (or have come) in contact with patient after each examination.
- For cleaning, use water or a lukewarm diluted household cleaning agent solution.
- **For disinfection, use common surface disinfectants (such as quaternary compounds and/or guanidine derivatives)**
- For disinfection of the wireless detector, use hospital grade, EPA (Environmental Protection) registered low to intermediate-level product for hard, non-porous surface and equipment, such as Sani-Cloth® PLUS
- Protect the portable detector with a single-use plastic bag (for the system which contains the detector)

# X-ray Products

## Radiography & Mobile Generators

	antistatic cleaner	household cleaning agent, pH-neutral	rubbing alcohol	alcohol	aldehyde	quaternary compound	guanidine derivative	pyridine derivative	benzene	alkylamine	phenol derivative	organic acid	peroxid	AHP (accelerated hydrogen peroxid)	chlorine derivative
<b>Radiography</b>															
Multitom Rax		X			X		X	X		X		X	X		
Ysio Max		X			X		X					X	X		
Multix Fusion Max		X				X	X								
MULTIX Impact		X			X		X					X	X		
<b>Mobile Generators</b>															
<b>MOBILETT Elara Max</b>															
Main System		X				X	X	X		X		X	X		X
Detector						X	X						X		X
<b>Mobilett Mira Max</b>															
Main System		X					X			X		X	X		
Detector						X	X						X		

.....  
**Disinfecting**  
 .....

1. Disinfect all the parts that can, directly or indirectly, come or have come into direct contact with the patient.
2. In addition, observe the hygiene plan of your hospital.
3. Disinfect the system by wiping only.

# Radiography Multitom Rax

Read carefully the according chapter in the operator manual of the Multitom Rax  
Operator manual - **chapter 2.3.8 Cleaning and disinfection**<sup>1</sup>

## The following active ingredient classes can be used:

- Guanidine derivatives
- Peroxide compounds
- Organic acids

## The following products should not be used:

- Virex TB
- Terralin
- All alcohol-based products
- All phenol-based products
- All chlorine-releasing products

.....  
The safety data sheets of the manufacturer provide detailed  
information on the composition of the disinfectants.  
.....



### Example products (permitted)

#### US: Listed on EPA<sup>2</sup>:

Peridox RTU / Contec  
Peroxide

#### Germany: Listed on RKI<sup>3</sup>:

Dismozon / Bode Chemie  
Peroxide

Incidin Plus / Ecolab  
Glucoprotamin

<sup>1</sup> Multitom Rax Operator Manual – VF10 or higher // XPB8-010G.620.05.01.02

<sup>2</sup> See EPA / US, <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>, 26<sup>th</sup> March 2020

<sup>3</sup> See RKI / Germany, [https://www.rki.de/DE/Content/InfAZ/N/Neuartiges\\_Coronavirus/Hygiene.html](https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Hygiene.html), 26<sup>th</sup> March 2020

# Radiography

## Ysio Max

Read carefully the according chapter in the operator manual of the Ysio Max  
Operator manual - **chapter 2.3.7 Cleaning and disinfection**<sup>1</sup>

### The following active ingredient classes can be used:

- Guanidine derivatives
- Peroxide compounds
- Organic acids

### The following products should not be used:

- Virex TB
- Terralin
- All alcohol-based products
- All phenol-based products
- All chlorine-releasing products

.....  
The safety data sheets of the manufacturer provide detailed  
information on the composition of the disinfectants.  
.....

<sup>1</sup> Ysio Max Operator Manual – VF10 and higher // XPB7-030G.620.04.02.02

<sup>2</sup> See EPA / US, <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>, 26<sup>th</sup> March 2020

<sup>3</sup> See RKI / Germany, [https://www.rki.de/DE/Content/InfAZ/N/Neuartiges\\_Coronavirus/Hygiene.html](https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Hygiene.html), 26<sup>th</sup> March 2020



#### Example products (permitted)

##### US: Listed on EPA<sup>2</sup>:

Peridox RTU / Contec  
Peroxide

##### Germany: Listed on RKI<sup>3</sup>:

Dismozon / Bode Chemie  
Peroxide

Incidin Plus / Ecolab  
Glucoprotamin

# Radiography

## Multix Fusion Max

Read carefully the according chapter in the operator manual of the Multix Fusion Max  
Operator manual - **chapter 6.2.1 Cleaning and disinfection**<sup>1</sup>

**The following active ingredient classes can be used:**

- Guanidine derivatives
- Quaternary compounds

.....  
The safety data sheets of the manufacturer provide detailed  
information on the composition of the disinfectants.  
.....



### Example products (permitted)

#### US: Listed on EPA<sup>2</sup>:

Sani-Cloth AF3 / PDI  
Quaternary compound

#### Germany: Listed on RKI<sup>3</sup>:

**No quaternary based products  
listed at RKI**

Alternative:  
Cleanisept / Dr. Schuhmacher  
Quaternary compound

<sup>1</sup> Multix Fusion Max Operator Manual // XPB2-160G.620.02.01.02

<sup>2</sup> See EPA / US, <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>, 26<sup>th</sup> March 2020

<sup>3</sup> See RKI / Germany, [https://www.rki.de/DE/Content/InfAZ/N/Neuartiges\\_Coronavirus/Hygiene.html](https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Hygiene.html), 26<sup>th</sup> March 2020



# Radiography MULTIX Impact

Read carefully the according chapter in the operator manual of the MULTIX Impact  
Operator manual - **chapter 2.3.8 Cleaning and disinfection**<sup>1</sup>

## The following active ingredient classes can be used:

- Guanidine derivatives
- Peroxide compounds
- Organic acids

## The following products should not be used:

- Virex TB
- Terralin
- All alcohol-based products
- All phenol-based products
- All chlorine-releasing products

.....  
The safety data sheets of the manufacturer provide detailed  
information on the composition of the disinfectants.  
.....



### Example products (permitted)

#### US: Listed on EPA<sup>2</sup>:

Peridox RTU / Contec  
Peroxide

#### Germany: Listed on RKI<sup>3</sup>:

Dismozon / Bode Chemie  
Peroxide

Incidin Plus / Ecolab  
Glucoprotamin

<sup>1</sup> Multix Impact Operator Manual VA10 // XPB1-200G.620.01.02.02

<sup>2</sup> See EPA / US, <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>, 26<sup>th</sup> March 2020

<sup>3</sup> See RKI / Germany, [https://www.rki.de/DE/Content/InfAZ/N/Neuartiges\\_Coronavirus/Hygiene.html](https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Hygiene.html), 26<sup>th</sup> March 2020

# Mobile Generators

## MOBILETT Elara Max

Read carefully the according chapter in the operator manual of the MOBILETT Elara Max Operator manual - **chapter 6.2 Cleaning and disinfection**<sup>1</sup>

### Disinfecting the detector

For surface disinfecting of the detector, we recommend using liquid solutions of a commercially available surfactant disinfectant based on the following ingredient classes:

- Guanidine derivatives
- Peroxide compounds
- Quaternary compounds
- Chlorine derivatives

Disinfectants based on alcohol, petroleum ether or phenolic derivatives can lead to material damage and are not recommended.

### Disinfecting the base unit and monitor screen

For surface disinfecting of the detector, we recommend using liquid solutions of a commercially available surfactant disinfectant based on the following ingredient classes:

- Alkylamine
- Guanidine derivatives
- Peroxide compounds
- Pyridine derivatives
- Quaternary compounds
- Chlorine derivatives
- Organic acids (not suited for bumper in front of the foot cover)

Disinfectants based on alcohol, petroleum ether or phenolic derivatives can lead to material damage and are not recommended.



#### Example products (permitted)

##### US: Listed on EPA<sup>2</sup>:

Peridox RTU / Contec  
Peroxide

##### Germany: Listed on RKI<sup>3</sup>:

Dismozon / Bode Chemie  
Peroxide

Incidin Plus / Ecolab  
Glucoprotamin

<sup>1</sup> MOBILETT Elara Max Operator Manual VA10 // XPR8-280G.620.01.01.02'

<sup>2</sup> See EPA / US, <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>, 26<sup>th</sup> March 2020

<sup>3</sup> See RKI / Germany, [https://www.rki.de/DE/Content/InfAZ/N/Neuartiges\\_Coronavirus/Hygiene.html](https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Hygiene.html), 26<sup>th</sup> March 2020

# Mobile Generators

## Mobilett Mira Max

Read carefully the according chapter in the operator manual of the Mobilett Mira Max  
Operator manual - **chapter 6.2 Cleaning and disinfection**<sup>1</sup>

### Disinfecting the detector

For surface disinfecting of the detector, we recommend using liquid solutions of a commercially available surfactant disinfectant based on the following ingredient classes:

- Guanidine derivatives (such as Fluorescein N)
- Quaternary compounds (e.g. biguanide surface)
- Peroxide compounds (e.g. Apesin AP 100, Dismozon plus, Sanosil)

The use of agents based on chlorine derivatives and alcohol can lead to material damage and are not recommended.

### Disinfecting the base unit and monitor screen

For surface disinfecting of the detector, we recommend using liquid solutions of a commercially available surfactant disinfectant based on the following ingredient classes:

- Alkylamine (such as Apesin Combi DR, Incidin Plus, Desonal)
- Guanidine derivatives (such as Floracin N)
- Peroxide compounds (such as Apesin AP 100, Dismozon plus, Sanosil)
- Organic acids (such as Apesin SDR san, Bio-Antibact med, Oxidice S-Des)

Disinfectants based on alcohol, petroleum ether or phenolic derivatives can lead to material damage and are not recommended.



#### Example products (permitted)

##### US: Listed on EPA<sup>2</sup>:

Peridox RTU / Contec Peroxide

##### Germany: Listed on RKI<sup>3</sup>:

Dismozon / Bode Chemie Peroxide

Incidin Plus / Ecolab Glucoprotamin

<sup>1</sup> Mobilett Mira Max Operator Manual // XPR8-270G.620.03.01.02

<sup>2</sup> See EPA / US, <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>, 26<sup>th</sup> March 2020

<sup>3</sup> See RKI / Germany, [https://www.rki.de/DE/Content/InfAZ/N/Neuartiges\\_Coronavirus/Hygiene.html](https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Hygiene.html), 26<sup>th</sup> March 2020

# Contact

---

## **Siemens Healthineers**

SHS DI X-ray products

Siemens Healthcare GmbH

Siemensstrasse 3

91131 Forchheim, Germany

Phone: +49 9191 18 - 0

[siemens-healthineers.com](http://siemens-healthineers.com)

---