

Activity	Bactericidal		Yeasticidal * Fungicidal		Tuberculocidal* Mycobactericidal		Virucidal		Sporicidal	
	Medical	Industry	Medical	Industry	Medical	Industry	Medical	Industry	Medical	Industry
Phase I <i>basic standard</i>	EN 1040 <i>april 2006</i> 2 strains* 5 log 5 min.		EN 1275 <i>april 2006</i> 2 strains** 4 log 15 min.						EN 14347 <i>august 2005</i> 2 strains 4 log 30, 60 or 120 min.	
Phase II step 1 <i>application standards</i> Tests in suspension + Interfering Substances (CC or DC)	EN 13727+A2 <i>december 2015</i> instruments 3 strains** 5 log ≤ 60 min. if t° ≥ 40°C, Enterococcus faecium only surfaces 3 strains** 5 log ≤ 5 or ≤ 60 min. hands 4 strains 3 log (hyg W) 5 log (Rub & surg W) from 30 to 60s (hyg.) from 1 to 5min (surg)	EN 1276 <i>march 2010</i> surfaces, hands, CIP 4 strains 5 log 5 min.	EN 13624 <i>november 2013</i> Instruments 2 strains*** 4 log ≤ 60 min. surfaces 2 strains*** 4 log ≤ 5 or ≤ 60 min. hands 1 strain* 2 log (hyg W) 4 log (Rub & surg W) from 30 to 60s (hyg.) from 1 to 5min (surg)	EN 1650+A1 <i>july 2013</i> surfaces, hands, CIP 2 strains*** 4 log ≤ 15 min.	EN 14348 <i>june 2005</i> Instruments, surfaces, hands 2 strains 4 log 60 min.	EN 14476 +A1 <i>october 2015</i> instruments 3 strains** 4 log ≤ 60 min. if t° ≥ 40°C, Parvovirus only surfaces 3 strains** 4 log ≤ 5 or ≤ 60 min. hands 3 strains** 2 strains* (limited virucidal activity) Vacciniavirus (activity on enveloped viruses) 4 log from 30 to 120s fabrics Parvovirus 4 log ≤ 20 min.	EN 13610 <i>july 2003</i> surfaces, CIP 2 strains 4 log 15 min.		EN 13704 <i>april 2002</i> surfaces, CIP 1 strain* 3 log 60 min.	
Phase II step 2 <i>application standards</i> Tests on surfaces + Interfering Substances (CC or DC)	EN 14561 <i>march 2007</i> instruments 3 strains** 5 log 60 min.	EN 13697 <i>june 2015</i> surfaces 4 strains 4 log 5 min.	EN 14562 <i>september 2006</i> instruments 2 strains** 4 log 60 min.	EN 13697 <i>june 2015</i> surfaces 2 strains** 3 log 15 min.	EN 14563 <i>february 2009</i> instruments 2 strains 4 log 60 min.					
	EN 16615 <i>may 2015</i> wipes 3 strains** 5 log 1 to 5 min. or 60 min.		EN 16615 <i>may 2015</i> wipes 1 strain* 4 log 1 to 5 min. or 60 min.							
Strains	* ** Pseudomonas aeruginosa * **Staphylococcus aureus **Enterococcus hirae Escherichia coli		* ** ***Candida albicans **Aspergillus niger ***Aspergillus brasiliensis		*Mycobacterium terrae Mycobacterium avium		**Poliovirus **Adenovirus ***Norovirus murin	Lactococcus lactis bacteriophages	*Bacillus subtilis Bacillus cereus	

Interfering Substances - Medical:
Interfering Substances - Industry:

Clean Conditions: *bovine albumin 0.3g/L*
Clean Conditions: *bovine albumin 0.3g/L*

Dirty Conditions: *bovine albumin 3g/L + erythrocytes 3ml/L*
Dirty Conditions: *bovine albumin 3g/L*

European standards relative to Hygienic treatment and Surgical disinfection of hands

Activity	Bactericidal		Yeasticidal* Fungicidal		Tuberculocidal* Mycobactericidal	Virucidal	
	Medical	Industry	Medical	Industry	Medical	Medical	
Phase I <i>basic standards</i>	EN 1040 <i>april 2006</i> 2 strains* 5 log 5 min.		EN 1275 <i>april 2006</i> 2 strains** 4 log 15 min.				
Phase II step 1 <i>application standards</i> Tests in suspension + Interfering Substances (CC or DC)	HYGIENIC	EN 13727+A2 <i>december 2015</i> 4 strains 3 log (washing) 5 log (rubbing) from 30 to 60s	EN 1276 <i>march 2010</i> 4 strains 5 log 5 min.	EN 13624 <i>november 2013</i> 1 strain* 2 log (washing) 4 log (rubbing) from 30 to 60s	EN 1650+A1 <i>july 2013</i> 2 strains*** 4 log ≤ 15 min.	EN 14348 <i>june 2005</i> 2 strains 4 log 60 min.	EN 14476 +A1 <i>october 2015</i> 3 strains** 2 strains* (limited virucidal activity) Vacciniavirus (activity on env. viruses) 4 log from 30 to 120s
	SURGICAL	EN 13727+A2 <i>december 2015</i> 4 strains 5 log (washing & rubbing) from 1 to 5min		EN 13624 <i>september 2013</i> 1 strain* 4 log (washing & rubbing) from 1 to 5min			
Phase II step 2 <i>application standards</i> Tests on surfaces + + Interfering Substances (CC or DC)	HYGIENIC WASHING	EN 1499 <i>june 2013</i> Escherichia coli K12 comparison with CODEX soap from 30 to 60s					
	HYGIENIC RUBBING	EN 1500 <i>june 2013</i> Escherichia coli K12 comparison with isopropanol 60% from 30 to 60s					
	SURGICAL DISINFECTION	EN 12791 <i>march 2016</i> comparison with propanol 60% from 60s to 5 min.					
Strains	* ** Pseudomonas aeruginosa * ** Staphylococcus aureus ** Enterococcus hirae Escherichia coli		* * * * Candida albicans ** Aspergillus niger *** Aspergillus brasiliensis		* Mycobacterium terrae Mycobacterium avium	** Poliovirus * ** Adenovirus * ** Norovirus murin	

Interfering Substances - Medical:
Interfering Substances - Industry:

Clean Conditions: *bovine albumin 0.3g/L*
Clean Conditions: *bovine albumin 0.3g/L*

Dirty Conditions: *bovine albumin 3g/L + erythrocytes 3ml/L*
Dirty Conditions: *bovine albumin 3g/L*

European standards relative to airborne disinfection of surfaces

Activity	Bactericidal		Yeasticidal* Fungicidal		Tuberculocidal* Mycobactericidal		Virucidal		Sporicidal	
	Medical	Industry	Medical	Industry	Medical	Industry	Medical	Industry	Medical	Industry
Phase I <i>basic standards</i>	EN 1040 <i>april 2006</i> 2 strains* 5 log 5 min.		EN 1275 <i>april 2006</i> 2 strains** 4 log 15 min.						EN 14347 <i>august 2005</i> 2 strains 4 log 30, 60 or 120 min.	
Phase II step 1 <i>application standards</i> Tests in suspension + Interfering Substances (CC or DC)	EN 13727+A2 <i>december 2015</i> surfaces 3 strains** 5 log ≤ 5 or ≤ 60 min.	EN 1276 <i>march 2010</i> surfaces, hands, CIP 4 strains 5 log 5 min.	EN 13624 <i>november 2013</i> surfaces 2 strains*** 4 log ≤ 5 or ≤ 60 min.	EN 1650+A1 <i>july 2013</i> surfaces, hands, CIP 2 strains*** 4 log ≤ 15 min.			EN 14476 +A1 <i>october 2015</i> surfaces 3 strains** 4 log ≤ 5 or ≤ 60 min.	EN 13610 <i>july 2003</i> surfaces, CIP 2 strains 4 log 15 min.		EN 13704 <i>april 2002</i> surfaces, CIP 1 strain* 3 log 60 min.
Phase II step 2 <i>application standards</i> Tests on surfaces + Interfering Substances (CC or DC)		EN 13697 <i>june 2015</i> surfaces 4 strains 4 log 5 min.		EN 13697 <i>june 2015</i> surfaces 2 strains** 3 log 15 min.		EN 13697 <i>june 2015</i> surfaces 2 strains 3 log 15 min.				
	Airborne disinfection of surfaces									
		NF T 72-281 <i>november 2014</i> 4 strains 5 log time for process recommended by manufacturer		NF T 72-281 <i>november 2014</i> 2 strains*** 4 log time for process recommended by manufacturer		NF T 72-281 <i>november 2014</i> 2 strains 4 log time for process recommended by manufacturer		NF T 72-281 <i>november 2014</i> human viruses bacteriophages 4 log time for process recommended by manufacturer		
Strains	* ** Pseudomonas aeruginosa * ** Staphylococcus aureus ** Enterococcus hirae Escherichia coli		* ** *** Candida albicans ** Aspergillus niger *** Aspergillus brasiliensis		* Mycobacterium terrae Mycobacterium avium		** Poliovirus * ** Adenovirus * ** Norovirus murin	Lactococcus lactis bacteriophages	* Bacillus subtilis Bacillus cereus	

Interfering Substances - Medical:
Interfering Substances - Industry:

Clean Conditions: *bovine albumin* 0.3g/L
Clean Conditions: *bovine albumin* 0.3g/L