

EXPERTISE IN DISINFECTION

Why choosing between Safety and Efficacy ?



AIM OF DISINFECTION IS ?

EFFICACY

TOO MANY DISINFECTANTS GOT

SIDE EFFECTS



Toxicity

Skin burning and
transcutaneous
intoxication



Corrosion of equipments



Pollution of Environment



TOXICITY



provokes light to severe diseases

CORROSION



Induces direct enormous expenses

POLLUTION



Represents heavy penalties

COMMONLY USED DISINFECTANTS

PATHOGEN SPECTRUM						EF	SIDE EFFECTS													
							Contact time	Concentration	Coagulation	Toxicity	Inhalation	Spills	Environment	Skin	Corrosive	Flammability	Explosive	Deterive	pH of use	Rinsing residues
Peracetic Acid	+	+	+	+	+	10 min	0.5% to 15%	NO								OXYDANT			1 to 5	NO
Hydrogen peroxyd	+	+	+	+	+	20 min	3% to 10%	YES				NO				OXYDANT			1 to 4	NO
Alcohol	+	+	+/-	+	+/-	Volatile	65%	YES						YES plastic rubber				1 to 11	NO	
Aldehydes Formol Glutaraldehyde	+	+	+	+	+	10 min to 10 h	2% to 8%	YES							NO	NO		7,5 to 8,5	Abundant rinsing	
Biguanide Chlorhexidone	+	+/-	+/-	+	+/-	15 min to 1 h	0.5% to 3%	YES	NO	NO			NO	NO	NO	NO		5,5 to 7	Sticky	
Chloride	+	+	+	+	+	30 min to 1 h	1000 ppm Cl ₂	YES							NO	NO		7 to 12	NO	
Phenois	+	+/-	+	+	-	20 min to 2 h	1% to 2%	YES							NO	NO		3 to 12	Abundant rinsing	
Quaternary Ammonium	+	+/-	+	+	-	5 min to 4 h	0.8% to 5%	NO	NO	NO				NO	NO	NO		3 to 12	NO	

Peracetic Acid



- $LD_{50} = 200 \text{ mg/kg bw (body weight) (rat)}$
- pH: 1-2.8
- Threshold Limit Value/ Personal Expose Limit:
TLV/PEL: 10 ppm (25 mg/m³)

Hydrogen Peroxyde



- LD₅₀ 317 mg/kg [Rat]. 270 mg/kg [mouse]
- pH: 3 (solution 3%)
- TLV/PEL 1 ppm (1.4 mg/m³)

Glutaraldehyde



- $LD_{50} = 316 \text{ mg/kg (m), } 285 \text{ mg/kg (f) bw}$
- pH: 3 (solution 3%)
- TLV/PEL 0.2 ppm, 0.7 mg/m^3

Chlorhydrate of poly(hexamethylene biguanide)



- LD₅₀ from 1049 mg/kg to 549 mg/kg bw
- pH: 4.36 at 21.7° C
- TLV/PEL not associated low volatil

Chlorine



- $LD_{50} = 292 \text{ mg/kg bw (rat)}$
- pH: 4-10
- TLV/PEL 0,1 ppm, 0.7 mg/m³

Phenol(s)



- LD₅₀ 317 mg/kg [Rat]. 270 mg/kg [mouse]
- pH: 4.3 (solution 3%)
- TLV/PEL 5 ppm (19 mg/m³)

C.M.R. SUBSTANCES

CARCINOGENIC = directly involved in causing cancer

MUTAGENIC = directly involved in causing DNA mutations

REPROTOXIC = altering sexual functions and fertility



Formaldehyde, glutaraldehyde, ethylene oxide, phenols, biguanides, alcohols

CONTINUING WITHOUT SAFETY ?



A MATTER OF GOOD SENS

« NEVER REPLACE A BIOLOGICAL THREAT BY A CHEMICAL RISK »

Ask for a new generation
of fine chemical !

NEVER FORGET DISINFECTION RULES

SPECTRUM CAPABILITY

Bactericidal ? Fungicidal? Mycobact.?
Virucidal ? Sporicidal ?

CONCENTRATION

25%? 10%? 3%? 0,5%?

CONTACT TIME

4 hours ? 1 hour ? 15 min.? 1 min ?

STABILITY

INTERFERRING SUBSTANCES sensitive?

EXPIRE DATE

6 months, 12 months, 36 months?

CLEAN BEFORE DISINFECT

A DEEP HOPE

Authorized molecules for disinfection:

	PATHOGEN SPECTRUM					EFFICIENCY						SIDE EFFECTS										
	Bacteria	Mycobacteria	Fungi	Enveloped virus	Naked virus	Contact time	Concentration	Coagulation	Interferences	Storage	Stability	Toxicity	Inhalation	Spills	Environment	Skin	Corrosive	Flammability	Explosive	Detergent	pH of use	Rinsing residues
Peracetic Acid	+	+	+	+	+	10 min	0.5% to 15%	NO	Loss of efficiency	Max 20°C	Unstable										1 to 5	NO
Hydrogen peroxyd	+	+	+	+	+	20 min	3% to 10%	YES	Loss of efficiency	Max 20°C	7 days				NO						1 to 4	NO
Alcohols	+	+	+/-	+	+/-	Volatile	65%	YES	Loss of efficiency	Max 20°C	30 days						YES plastic rubber				1 to 11	NO
Aldehydes Formol, Glutaraldehyde	+	+	+	+	+	10 min to 10 h	2% to 8%	YES	Loss of efficiency	Max 20°C	14 to 28 days							NO	NO		7,5 to 8,5	Abundant rinsing
Biguanide Chlorhexidine	+	+/-	+/-	+	+/-	15 min to 1 h	0.5% to 3%	YES	Loss of efficiency	Max 20°C	7 days	NO	NO			NO	NO	NO	NO		5,5 to 7	Sticky
Chloride	+	+	+	+	+	30 min to 1 h	1000 ppm Cl ₂	YES	Loss of efficiency	Max 20°C	< 1 day							NO	NO		7 to 12	NO
Phenois	+	+/-	+	+	-	20 min to 2 h	1% to 2%	YES	Loss of efficiency	Max 20°C	7 days							NO	NO		3 to 12	Abundant rinsing
Quaternary Ammonium	+	+/-	+	+	-	5 min to 4 h	0.8% to 5%	NO	Loss of efficiency	Max 60°C	long shelf-life	NO	NO				NO	NO	NO		3 to 12	NO

NO COMPROMISE ON EFFICACY

THE EUROPEAN LAW IMPOSE

the exclusive usage of certified
Medical Device disinfectant
following EN14885 norms and
specifically EN14561 norm
for surgical instruments

NO COMPROMISE ON EFFICACY

Confirmed as High Level Disinfectant:

Bactericidal, fungicidal, mycobactericidal, virucidal, sporicidal

Following; Iso Standard 13485 and European Norms EN 13727, EN 13624, EN 14476, EN 14348, EN 14561, EN 14562, EN 14563

following practical condition of application (germ carrier methode)

In interferring soiled conditions (worth cases)

On dry and highly contaminated surfaces

Within realistic working time (1 to 10 – 60 minutes)

WHAT IS A PERFECT DISINFECTANT

pH : 7 = neutral

Not material corrosive

No additional cost for replacing

No Toxic vapour

No lunges damage

No skin burning

No occupational risk

Not polluting

No waste collect sewer elimination

Biodegradable

Eco-Friendly

LOOK FOR ADVANCED WORKABILITY

THREE IN ONE

Better usability

More handy

Safer

Better stability

Compatible

DISSOLVENT, CLEANER, DISINFECTANT

Also dirt remover and germs killer

Integrated dosage system

Inactivated germs from 1 to 10 min.

36 months

Bio-compatible and material compatible

ASK FOR CERTIFIED QUALIFICATION

REQUIRE MANUFACTURER QUALIFICATION :

ISO 13485 CERTIFIED

PRODUCTION CHAIN UNDER ISO SYSTEM

CHECK PRODUCT STABILITY

VERIFY MEDICAL SAFETY DATA SHEET

MAKE A RISK ANALYSIS OF YOUR SITUATION

CHECK ANALYSIS REPORT (no judge an party)

VERIFY EFFICACY OF YOUR APPLICATION



BE RESPONSIBLE

- **DO NOT AFFECT**

YOUR HEALTH

PATIENT's HEALTH,

YOUR PEOPLE's HEALTH,

NATURE's HEALTH

- **CHOISE EFFICIENCY & SAFETY**

THANK YOU