

A. D. R. E. M. I. - TOURS

LABORATOIRE DE MICROBIOLOGIE - IMMUNOLOGIE
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HYPEROX[®] vs TH 4+[®], VIROCID[®] & TEGODOR[®]

Comparative study

VIRUCIDAL ACTIVITY EVALUATION

ON VIRUSES OF VERTEBRATES

in the presence of albumin & yeast extract mixture

Viruses (2) : Talfan & Canine Contagious Hepatitis

Times (2) & Temperature (1) Contact : 5 and 30 minutes at + 4 °C

Pr. Jean Paul CHIRON

Nicole GUILLET

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Requirements AFSSA
Standard AFNOR NF T 72-180 (1989)

REQUEST FROM :

ANTEC - DUPONT Chilton Industrial Estate Sudbury Suffolk C010 BXD England
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REPORT MIC. 05/03-313 / EV ATC
TOURS, 3rd June 2005

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1. IDENTIFICATION OF THE TEST LABORATORY

A.D.R.E.M.I. - Tours / Laboratoire de Microbiologie - Immunologie
 Faculté des Sciences Pharmaceutiques " Philippe MAUPAS "
 31 avenue G. Monge
 F-37200 TOURS (France)

2. IDENTIFICATION OF THE SAMPLES

<i>Name of the products</i>	: ① HYPEROX [®] ② TH 4+ [®] ③ VIROCID [®] ④ TEGODOR [®]
<i>Batch n° / pH on receipt (pure product)</i>	: ① 323 / pH = 2,26 (diluted at 1 % / distilled water) ② 407556 / pH = 4,43 ③ 403510 / pH = 4,04 ④ ES62B08325 / pH = 3,08
<i>Appearance / Packaging</i>	: ① colourless liquid / plastic flask (1 litre) ② green liquid / plastic flask (1 litre) ③ dark orange liquid / plastic flask (10 litres) ④ colourless liquid / plastic flask (1 litre)
<i>Date of manufacture / expiry date</i>	: ① march 14 th 2005 / 18 months ② not specified / exp : 12.2008 ③ not specified / exp : 10.2007 ④ not specified / 12 months
<i>Manufacturers</i>	: ① ANTEC-DUPONT ② SOGEVAL ③ CID LINES ④ GOLDSCHMIDT AG (Essen - D)

Date of delivery at the laboratory : march 25th 2005
left in the laboratory by Mr Allan LAW

Codes A.D.R.E.M.I. - Tours / LMI : ① 05/034 ATC ⇔ HYPEROX®
② 05/035 ATC ⇔ TH 4+®
③ 05/037 ATC ⇔ VIROCID®
④ 05/033 ATC ⇔ TEGODOR®

Storage conditions in the laboratory : at room temperature and darkness

Period of analysis : 2005 march 31st to june 1st

Active substance(s) and concentration(s) : cf. appendix 1

3. EXPERIMENTAL CONDITIONS

- 3.1. TEST TEMPERATURE** : + 4 ° ± 0,5 °C ⇔ ANTEC-DUPONT's request
- 3.2. CONTACT TIMES** : 5 & 30 minutes ⇔ ANTEC-DUPONT's request
- 3.3. DILUENT FOR THE PRODUCT**
- recommended by the manufacturer : not specified
 - used in the tests : sterile distilled water
- 3.4. REFERENCE STRAINS AND CELLS**
- *Picornaviridae* : virus of Talfan disease - strain D15E - cultivated on PK15 cells
 - *Adenoviridae* : virus of contagious canine hepatitis (CCH), cultivated on MDCK cells
- 3.5. CELL CULTURE MEDIA**
- PBS Buffer of DULBECCO
 - PBS Buffer (pH = 7,2)
 - Eagle MEM medium with fetal calf serum (at 2 and/or 10 % V/V)
- 3.6. INTERFERING SUBSTANCES**
- **Albumin & yeast extract mixture (Proteins)** : final concentration in test procedure 1 % (w/V)
- 3.7. TITRES OF VIRAL SUSPENSIONS (TV)**
- * virus of Talfan disease : 1,73.10⁷ ⇔ TV₁ = 7,24 ⇔ test n° 1
1,84.10¹⁰ ⇔ TV₂ = 10,27 ⇔ test n° 2
 - * virus of contagious canine hepatitis : 7,05.10⁵ ⇔ TV₃ = 5,85 ⇔ test n° 3^(a)
- ^(a) : low titre of the CCH virus suspension

4. PRELIMINARY TESTS

4.1. STUDY OF THE MISCIBILITY OF THE PRODUCT

<i>proteins</i>	(% V/V)								
	8,00	6,00	5,00	4,00	3,00	1,50	1,00	0,75	≤ 0,50
HYPEROX[®]	NE	NE	NE	NE	O	O	C	C	C
TH 4+[®]	↓	↓	NE	↓	↓	NE	NE	NE	NE
VIROCID[®]	NE	NE	↓	↓	↓	↓	O	O	NE
TEGODOR[®]	↓	NE	↓	NE	O	O	C	C	NE

NE : not evaluated

C : miscible in the water

O : opalescence

↓ : not miscible in the water (precipitation)

⇒ standard applicable

⇒ standard applicable

⇒ standard not applicable (used tests on the supernatant liquid)

4.2. SUBCYTOTOXIC DILUTION OF THE PRODUCT (Tables 1a, 1b & 1c)

Table 1a : CYTOTOXICITY ON PK15 CELLS ⇔ test n° 1

4 products to evaluate / albumin & yeast extract mixture

PRODUCT (% V/V) / METHODS		SUBCYTOTOXIC CONCENTRATIONS	
		PK15 CELLS	MDCK CELLS
<i>Proteins / 5 min at 4 °C</i>			
HYPEROX[®] 3,0 %	ICE-COLD DILUTION	10 ⁻³	NE
	MOLECULAR SIEVING	10 ⁻¹	
TH 4+[®] 6,0 %	ICE-COLD DILUTION	10 ⁻²	
	MOLECULAR SIEVING	10 ⁻²	
VIROCID[®] 3,0 %	ICE-COLD DILUTION	10 ⁻²	
	MOLECULAR SIEVING	PUR	
TEGODOR[®] 3,0 %	ICE-COLD DILUTION	10 ⁻²	
	MOLECULAR SIEVING	10 ⁻¹	

NE : not evaluated

Table 1b : CYTOTOXICITY ON PK15 CELLS ⇔ test n° 1
4 products to evaluate / albumin & yeast extract mixture

PRODUCTS (% V/V) / METHODS		SUBCYTOTOXIC CONCENTRATIONS	
		PK15 CELLS	MDCK CELLS
<i>Proteins / 30 min at 4 °C</i>			
HYPEROX® 1,5 %	ICE-COLD DILUTION	10 ⁻³	NE
	MOLECULAR SIEVING	10 ⁻²	
TH 4+® 4,0 %	ICE-COLD DILUTION	10 ⁻²	
	MOLECULAR SIEVING	10 ⁻¹	
VIROCID® 1,5 %	ICE-COLD DILUTION	10 ⁻²	
	MOLECULAR SIEVING	PURE	
TEGODOR® 1,5 %	ICE-COLD DILUTION	10 ⁻²	
	MOLECULAR SIEVING	10 ⁻¹	

NE : not evaluated

Table 1c : CYTOTOXICITY ON PK15 CELLS ⇔ test n° 2 & 3
4 products to evaluate / albumin & yeast extract mixture

PRODUCTS (% V/V) / METHODS		SUBCYTOTOXIC CONCENTRATIONS	
		PK15 CELLS	MDCK CELLS
<i>Proteins / 30 min at 4 °C</i>			
HYPEROX® 0,5 %	ICE-COLD DILUTION	NE	10 ⁻²
	MOLECULAR SIEVING		10 ⁻¹
TH 4+® 8,0 %	ICE-COLD DILUTION	10 ⁻²	10 ^{-2(a)}
	MOLECULAR SIEVING	10 ⁻¹	10 ^{-1(a)}
VIROCID® 5,0 %	ICE-COLD DILUTION	10 ⁻²	10 ^{-2(b)}
	MOLECULAR SIEVING	10 ⁻²	10 ^{-1(b)}
TEGODOR® 8,0 %	ICE-COLD DILUTION	10 ⁻²	10 ⁻²
	MOLECULAR SIEVING	10 ⁻²	10 ⁻²

NE : not evaluated ^(a) : evaluated concentration = 6,0% V/V ^(b) : evaluated concentration = 4,0% V/V

4.3. METHODS USED

In the presence of albumin & yeast extract mixture (proteins) , the molecular sieving is chosen for the system Talfan virus / PK15 cells.

A dilution at ½ is used for determination of virucidal activity of CCH virus.

4.4. TREATED CELLS CAPACITY TO DEVELOP VIRAL INFECTION

In the presence of albumin & yeast extract mixture, 0,9 ml of each of 4 filtered and diluted products at final concentration in the test procedure, is added to 0,1 ml of the viral suspension and incubated for 30 minutes at + 4 °C (F1).

A reference tube (F2) is used in the same conditions (the product is substituted by the PBS buffer).

Validation : $F_1 = F_2 \pm 0,5$

Table 2 : TREATED CELLS CAPACITY TO DEVELOP VIRAL INFECTION
4 products to evaluate ↔ tests n° 2 & 3

VIRUS / PRODUCTS	VIRAL TITRE * (lg)	
	TREATED VIRUS (F ₁)	REFERENCE VIRUS (F ₂)
HYPEROX®		
Talfan virus / 0,75 %	10,12	10,26
CCH virus / 0,50 %	5,91	5,42
TH 4+®		
Talfan virus / 8,0 %	10,24	10,26
CCH virus / 6,0 %	5,57	5,42
VIROCID®		
Talfan virus / 5,0 %	10,06	10,26
CCH virus / 4,0 %	5,26	5,42
TEGODOR®		
Talfan virus / 8,0 %	10,00	10,26
CCH virus / 8,0 %	5,72	5,42

5. FINAL TESTS**5.1. PROTEIN CONCENTRATIONS OF THE VIRAL SUSPENSIONS**

* Talfan virus : 1,12 mg/ml

* CCH virus : 1,35 mg/ml

5.2. RESULTS

Table 3a : FINAL TEST / Talfan Virus ($1,73.10^7$ IU / ml \Leftrightarrow 7,24 lg)
4 products to evaluate / 5 & 30 min at + 4 °C \Leftrightarrow test n° 1

PRODUCTS	CONCENTRATIONS (% V/V)	VIRAL TITRE ^(a) (lg)		CELLS USED	DELAY BEFORE READING (d)
		T	C		

Talfan Virus / Proteins / 5 min at + 4 °C

HYPEROX [®]	3,0	≤ 3,30	7,60	PK15	3
	1,0	≤ 3,30			
TH 4+ [®]	6,0	5,52	7,60	PK15	3
	4,0	6,82			
VIROCID [®]	3,0	5,22	7,60	PK15	3
	1,0	8,32			
TEGODOR [®]	3,0	7,58	7,60	PK15	3
	1,0	7,21			

Talfan Virus / Proteins / 30 min at + 4 °C

HYPEROX [®]	1,50	≤ 3,30	7,60	PK15	3
	0,75	≤ 3,30			
TH 4+ [®]	4,0	6,72	7,60	PK15	3
	3,0	6,51			
VIROCID [®]	1,50	6,97	7,60	PK15	3
	0,75	6,97			
TEGODOR [®]	1,50	6,91	7,60	PK15	3
	0,75	7,81			

^(a) : Titre in infectious units / ml (IU/ml)

d : days

T : Test

C : Control

Table 3b : *FINAL TEST / Talfan Virus* (1,84.10¹⁰ IU / ml ⇔ 10,27 lg)
4 products to evaluate / 5 & 30 min at + 4 °C ⇔ test n° 2

PRODUCTS	CONCENTRATIONS (% V/V)	VIRAL TITRE ^(a) (lg)		CELLS USED	DELAY BEFORE READING (d)
		T	C		

Talfan Virus / Proteins / 5 min at + 4 °C

HYPEROX [®]	0,75	3,34	10,10	PK15	3
	0,50	3,34			
	0,25	6,72			
TH 4+ [®]	8,0	5,24	10,10	PK15	3
	6,0	5,92			
	4,0	6,22			
VIROCID [®]	5,0	5,70	10,10	PK15	3
	4,0	5,33			
	3,0	5,70			
TEGODOR [®]	8,0	5,82	10,10	PK15	3
	5,0	6,96			

Talfan Virus / Proteins / 30 min at + 4 °C

HYPEROX [®]	0,75	3,34	10,10	PK15	3
	0,50	3,34			
	0,25	5,92			
TH 4+ [®]	8,0	5,24	10,10	PK15	3
	6,0	5,42			
	4,0	6,53			
VIROCID [®]	5,0	6,72	10,10	PK15	3
	4,0	6,52			
	3,0	6,07			
TEGODOR [®]	8,0	5,76	10,10	PK15	3
	5,0	7,44			

^(a) : Titre in infectious units / ml (IU/ml)

d : days

T : Test

C : Control

Table 4 : FINAL TEST / CCH Virus ($7,05.10^5$ IU / ml \Leftrightarrow 5,85 lg)
4 products to evaluate / 5 & 30 min at + 4 °C \Leftrightarrow test n° 3

PRODUCTS	CONCENTRATIONS (% V/V)	VIRAL TITRE ^(a) (lg)		CELLS USED	DELAY BEFORE READING (d)
		R	T		

CCH Virus / Proteins / 5 min at + 4 °C

HYPEROX [®]	0,50	1,64	5,26	MDCK	5
	0,25	3,70			
	0,10	3,70			
TH 4+ [®]	6,0	1,64	5,26	MDCK	5
	4,0	2,25			
	3,0	1,64			
VIROCID [®]	4,0	1,64	5,26	MDCK	5
	3,0	1,64			
	1,5	2,68			
TEGODOR [®]	8,0	1,64	5,26	MDCK	5
	5,0	1,64			

CCH Virus / Proteins / 30 min at + 4 °C

HYPEROX [®]	0,50	1,64	5,26	MDCK	5
	0,25	3,70			
	0,10	3,70			
TH 4+ [®]	6,0	1,64	5,26	MDCK	5
	4,0	2,25			
	3,0	2,13			
VIROCID [®]	4,0	1,64	5,26	MDCK	5
	3,0	2,13			
	1,5	2,13			
TEGODOR [®]	8,0	2,25	5,26	MDCK	5
	5,0	2,25			

^(a) : Titre in infectious units / ml (IU/ml)

d : days

T : Test

C : Control

5.3. EXPRESSION OF RESULTS

* PK 15 Cells / Talfan Virus: $TV_1 = 7,24 \Leftrightarrow \text{test n}^\circ 1$ / $TV_2 = 10,27 \Leftrightarrow \text{test n}^\circ 2$

* MDCK Cellules / CCH Virus: $TV_3 = 5,85 \Leftrightarrow \text{test n}^\circ 3$

Table 5a : VIRAL TITRE REDUCTION

4 products to evaluate / Talfan Virus / 5 & 30 min at + 4 °C / Proteins

PRODUCTS	(% V/V)	VIRAL TITRE REDUCTION ^(a) (lg)	
		5 min	30 min
Talfan Virus			
HYPEROX[®]	3,00	$\geq 4,30$ ⁽¹⁾	NE
	1,50	NE	$\geq 4,30$ ⁽¹⁾
	1,00	$\geq 4,30$ ⁽¹⁾	NE
	0,75	6,76 ⁽²⁾	$\geq 4,30$ ⁽¹⁾ / 6,76 ⁽²⁾
	0,50	6,76 ⁽²⁾	6,76 ⁽²⁾
	0,25	3,38 ⁽²⁾	4,18 ⁽²⁾
TH 4+[®]	8,0	4,86 ⁽²⁾	4,86 ⁽²⁾
	6,0	2,08 ⁽¹⁾ / 4,18 ⁽²⁾	4,68 ⁽²⁾
	4,0	0,78 ⁽¹⁾ / 3,88 ⁽²⁾	0,88 ⁽¹⁾ / 3,57 ⁽²⁾
	3,0	NE	1,09 ⁽¹⁾
VIROCID[®]	5,00	4,40 ⁽²⁾	3,38 ⁽²⁾
	4,00	4,77 ⁽²⁾	3,58 ⁽²⁾
	3,00	2,38 ⁽¹⁾ / 4,40 ⁽²⁾	4,03 ⁽²⁾
	1,50	NE	0,63 ⁽¹⁾
	1,00	0,00 ⁽¹⁾	NE
	0,75	NE	0,63 ⁽²⁾
TEGODOR[®]	8,00	4,28 ⁽²⁾	4,34 ⁽²⁾
	5,00	3,14 ⁽²⁾	2,66 ⁽²⁾
	3,00	0,02 ⁽¹⁾	NE
	1,50	NE	0,69 ⁽¹⁾
	1,00	0,39 ⁽¹⁾	NE
	0,75	NE	0,00 ⁽²⁾

^(a) : titre in infectious units / ml (IU/ml)

NE : not evaluated

⁽¹⁾ : test n° 1

⁽²⁾ : test n° 2

Table 5b : VIRAL TITRE REDUCTION
4 products to evaluate / CCH Virus / 5 & 30 min at + 4 °C / Proteins

PRODUCTS	(% V/V)	VIRAL TITRE REDUCTION ^(a) (lg)	
		5 min	30 min
CCH Virus^(b)			
HYPEROX[®]	0,50	3,62 ⁽³⁾	3,62 ⁽³⁾
	0,25	1,56 ⁽³⁾	1,56 ⁽³⁾
	0,10	1,56 ⁽³⁾	1,56 ⁽³⁾
TH 4+[®]	6,0	3,62 ⁽³⁾	3,62 ⁽³⁾
	4,0	3,01 ⁽³⁾	3,01 ⁽³⁾
	3,0	3,62 ⁽³⁾	3,13 ⁽³⁾
VIROCID[®]	4,00	3,62 ⁽³⁾	3,62 ⁽³⁾
	3,00	3,62 ⁽³⁾	3,13 ⁽³⁾
	1,50	2,58 ⁽³⁾	3,13 ⁽³⁾
TEGODOR[®]	8,00	3,62 ⁽³⁾	3,01 ⁽³⁾
	5,00	3,62 ⁽³⁾	3,01 ⁽³⁾

^(a) : titre in infectious units / ml (IU/ml)

NE : not evaluated

^(b) : low titre

⁽³⁾ : test n° 3

6. CONCLUSION

The comparative evaluation of the virucidal activity of four products was carried out for two times of contact (5 and 30 minutes) at low temperature (+ 4 °C) in the presence of bovine albumin and yeast extract mixture (final concentration in the test: 1 % w/V) according to the standard method AFNOR NF T 72-180 with two reference viruses, virus of the disease of Talfan and virus of contagious canine hepatitis (*reduction by at least 3 lg of the infectious titre*).

Under the experimental conditions defined in this report of the study, it should be stressed that the possibility of obtaining a high viral titre for the virus of the disease of Talfan makes it possible to better appreciate the effectiveness of each of the four products and in particular to evaluate if the product is concentration and/or time dependent. On the other hand, the difficulty in obtaining a high titre for the virus of contagious canine Hepatitis limits the evaluation of the logarithmic reduction and, consequently, the evaluation of the concentration effect and the time effect for each product.

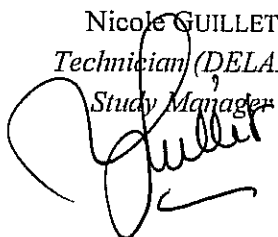
The analysis of the results, obtained under the experimental conditions described in these comparative studies where the four products were evaluated in the same tests, makes it possible to conclude on the one hand, the active virucidal concentration with the two viruses, and on the other hand, the concentration and/or time effect of each product with the virus of the disease of Talfan:

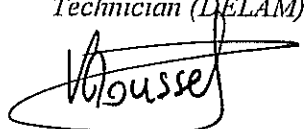
- ✓ **HYPEROX[®]** : virucidal concentration \Leftrightarrow 0,50 % (V/V) / 5 min at + 4 °C
product dependent time
product dependent concentration
- ✓ **TH 4+[®]** : virucidal concentration \Leftrightarrow 4,0 % (V/V) / 5 min at + 4 °C
product non dependent time
product dependent concentration
- ✓ **VIROCID[®]** : virucidal concentration \Leftrightarrow 3,0 % (V/V) / 5 min at + 4 °C
product non dependant time
product non dependent concentration
- ✓ **TEGODOR[®]** : virucidal concentration \Leftrightarrow \geq 5,0 % (V/V) / 5 min at + 4 °C
product non dependent time
product dependent concentration

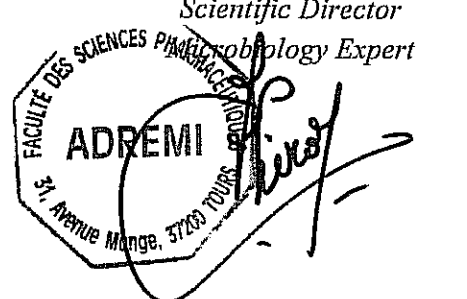
For the three products containing glutaraldehyde, the virucidal activity evaluation, in the presence of bovine albumin and yeast extract mixture, shows a precipitation with the active concentrations (*reduction logarithmic higher than 3 lg*) involving a sequestration of active(s) substance(s) in particular the glutaraldehyde. Under these experimental conditions, it is difficult to appreciate the concentration effect and/or time. The analysis of the results of the concentration effect shows a response "all or nothing".

A comparative study, in the absence of interfering substance or in the presence of hard water, would make it possible to appreciate the specific and real activity at low temperature (+ 4 °C) of each of the four products in order to validate the results of the time and/or concentration effect(s) obtained in the presence of albumin and yeast extract mixture.

TOURS, 3rd June 2005

Nicole GUILLET
Technician (DELAM)
Study Manager


Virginie MOUSSET
Technician (DELAM)


Professeur Jean Paul CHIRON
Scientific Director
Microbiology Expert


APPENDIXES

APPENDIX 1 : PRODUCTS EVALUATED

APPENDIX 2 : COMPLEMENTARY RESULTS (PH)

APPENDIX 1

PRODUCTS EVALUATED

- ① **HYPEROX[®]** batch n° 323 ⇔ BN 23022005 / packed 14.03.2005 (1 litre)
composition (V/V) : 5 % Peracetic acid
25 % Hydrogen peroxide
6 % acetic acid
- ② **TH 4+[®]** batch n° 407556 ⇔ exp: 12.2008 (1 litre)
composition (for 1 litre) : 18,75 g Chlorure de didecyldiméthylammonium
18,75 g Chlorure de dioctyldiméthylammonium
37,50 g Chlorure d'octyldécylméthylammonium
50,00 g Chlorure d'alkyldiméthylbenzylammonium
62,50 g Glutaraldéhyde
qsp 1 litre Excipients (tensio-actifs, parfums terpéniques, eau)
- ③ **VIROCID[®]** batch n° 403510 ⇔ exp: 10.2007 (10 litres)
composition (for 1 litre) : Alkyldiméthylbenzylammoniumchloride
Didecyldiméthylammoniumchloride
Glutaraldehyde
Alkohol
Pine oil
Detergenter
- ④ **TEGODOR[®]** batch n° ES 62B08325 ⇔ exp: 12 months (1 litre)
composition (for 100 g) : 3,0 g laurildimetilbenzilammonio cloruro
3,0 g didecildimetilammonio cloruro
6,0 g glutaraldeide
5,0 g poliossietilen-alchilariletere
0,5 g lauriletersalfato sidico
1,3 g acido citrico
81,2 g acqua

APPENDIX 2

COMPLEMENTARY RESULTS (pH)

Table A.3a : FINAL TEST / Talfan Virus ($1,73 \cdot 10^7$ IU / ml \Leftrightarrow 7,24 lg)
4 products to evaluate / 5 min at + 4 °C \Leftrightarrow test n° 1

PRODUCTS	CONCENTRATIONS (% V/V)	pH
<i>Talfan Virus / Proteins / 5 min at + 4 °C</i>		
HYPEROX®	3,0	7,81
	1,0	7,50
TH 4+®	6,0	8,87
	4,0	8,69
VIROCID®	3,0	8,71
	1,0	8,66
TEGODOR®	3,0	8,04
	1,0	8,40

Table A.3b : FINAL TEST / Virus Talfan ($1,73 \cdot 10^7$ UI / ml \Leftrightarrow 7,24 lg)
4 products to evaluate / 30 min at + 4 °C \Leftrightarrow test n° 1

PRODUCTS	CONCENTRATIONS (% V/V)	pH
<i>Talfan Virus / Proteins / 30 min at + 4 °C</i>		
HYPEROX®	1,50	7,65
	0,75	7,40
TH 4+®	4,0	8,56
	3,0	8,65
VIROCID®	1,50	8,61
	0,75	7,98
TEGODOR®	1,50	8,34
	0,75	8,18

Table A.3c : FINAL TEST / Talfan Virus ($1,84 \cdot 10^{10}$ UI / ml \Leftrightarrow 10,27 lg)
4 products to evaluate / 5 min at + 4 °C \Leftrightarrow test n° 2

PRODUCTS	CONCENTRATIONS (% V/V)	PH
<i>Talfan Virus / Proteins / 5 min at + 4 °C</i>		
HYPEROX®	0,75	7,65
	0,50	7,70
	0,25	7,91
TH 4+®	8,0	8,53
	6,0	8,58
	4,0	8,62
VIROCID®	5,0	8,03
	4,0	8,12
	3,0	8,21
TEGODOR®	8,0	8,31
	5,0	8,02

Table A.3d : FINAL TEST / Talfan Virus ($1,84 \cdot 10^{10}$ UI / ml \Leftrightarrow 10,27 lg)
4 products to evaluate / 30 min at + 4 °C \Leftrightarrow test n° 2

PRODUCTS	CONCENTRATIONS (% V/V)	PH
<i>Talfan Virus / Proteins / 30 min at + 4 °C</i>		
HYPEROX®	0,75	7,36
	0,50	7,47
	0,25	7,72
TH 4+®	8,0	8,50
	6,0	8,51
	4,0	8,53
VIROCID®	5,0	8,45
	4,0	8,26
	3,0	8,32
TEGODOR®	8,0	8,35
	5,0	7,98

Table A.3e : FINAL TEST / CCH Virus ($7,05 \cdot 10^5$ UI / ml \Leftrightarrow 5,85 lg)
4 products to evaluate / 5 min at + 4 °C \Leftrightarrow test n° 3

PRODUCTS	CONCENTRATIONS (% V/V)	PH
<i>Virus H.C.C. / Proteins / 5 min at + 4 °C</i>		
HYPEROX®	0,50	8,23
	0,25	8,05
	0,10	8,35
TH 4+®	6,0	8,57
	4,0	8,49
	3,0	8,54
VIROCID®	4,0	8,71
	3,0	8,63
	1,5	8,59
TEGODOR®	8,0	8,56
	5,0	8,55

Table A.3f : FINAL TEST / CCH Virus ($7,05 \cdot 10^5$ UI / ml \Leftrightarrow 5,85 lg)
4 products to evaluate / 30 min à at 4 °C \Leftrightarrow test n° 3

PRODUCTS	CONCENTRATIONS (% V/V)	PH
<i>CCH Virus / Proteins / 30 min at + 4 °C</i>		
HYPEROX®	0,50	8,24
	0,25	8,35
	0,10	8,38
TH 4+®	6,0	8,66
	4,0	8,64
	3,0	8,55
VIROCID®	4,0	8,56
	3,0	8,48
	1,5	8,46
TEGODOR®	8,0	8,13
	5,0	8,24