






taux de dilution






Programme de biosécurité

nettoyage, désinfection et assainissement des lignes d'eau

produit	taux de dilution	diamètre ligne d'eau (pouces)	quantité de solution désinfectante (L/10 pi)
Biofoam 	Sans animaux	1-5 % (10-50 mL/L)	1/2 : 0,4
		3/4 : 0,9	
		1 : 1,6	
Virkon® (en désinfection) 	Sans animaux	1 : 100 (10 g/L)	1/2 : 0,4
		3/4 : 0,9	
		1 : 1,6	
Hyperox 	Sans animaux	1 : 256 (4 mL/L)	1/2 : 0,4
		3/4 : 0,9	
		1 : 1,6	

S'assurer que les produits atteignent l'extrémité de la ligne. Laisser la solution reposer au moins 20 minutes (**Biofoam**) et 10 minutes (**Virkon®**, **Hyperox**) puis drainer et rincer à l'eau claire.



nettoyage et désinfection d'un bâtiment absence d'animaux

produit	taux de dilution (TD)	taux d'application (TA)	quantité de solution (QS)	quantité de produit (QP)
 Biosolve	Vaporisation	0,5 % (5 mL/L)	0,5 L/m ² (ou 10 pi ²)	ST x TA
	Vaporisation	1 % (10 mL/L)	0,5 L/m ² (ou 10 pi ²)	ST x TA
	Mousse	2 % (20 mL/L)	0,25 L/m ² (ou 10 pi ²)	ST x TA
 Biofoam	Vaporisation	1 % (10 mL/L)	0,5 L/m ² (ou 10 pi ²)	ST x TA
	Mousse	2 % (20 mL/L)	0,25 L/m ² (ou 10 pi ²)	ST x TA
 Virkon®	Vaporisation	10 g/L	0,25 L/m ² (ou 10 pi ²)	ST x TA
	Brumisation	10-50 g/L	1-4 L/100 m ³ (ou 3500 pi ³)	V x TA
 Hyperox	Vaporisation	4 mL/L (1/256)	0,3 L/m ² (ou 10 pi ²)	ST x TA
	Vaporisation	8 mL/L (1/128)	0,3 L/m ² (ou 10 pi ²)	ST x TA
	Brumisation	100 mL/L (1/10)	0,015 L/m ³ (ou 35 pi ³)	V x TA
 OO-Cide	Vaporisation	1 sachet/30 L (de N°1 et N°2)	0,3 L/m ² (ou 10 pi ²)	SP x TA

A = longueur; B = largeur; C = hauteur • ST = Surface totale = 2 (A x B) + 2 (A x C) + 2 (B x C) • SP = Surface plancher = A x B • V = Volume = A x B x C

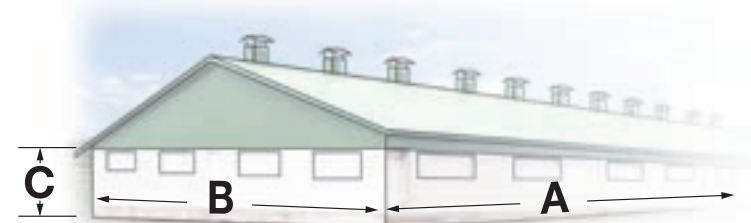
Facteur de correction • pour tenir compte des équipements fixes et des cloisons, un facteur de correction sur la surface totale devrait être appliqué: x 1,25 volailles sur parquet et x 1,5 volailles en cage et porcs.

bains de pieds et de roues

produit	taux de dilution	produit	taux de dilution
 Virkon®	1 : 100 (10 g/L)	 Hyperox	1 : 128 (8 mL/L)

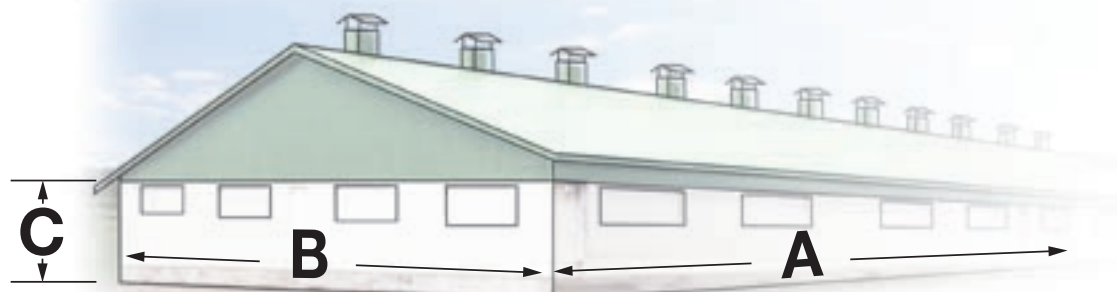
Changer le bain de pieds au moins une fois par semaine pour **Virkon®**, deux fois par semaine pour **Hyperox**, ou lorsque la solution est souillée.

A = longueur; B = largeur; C = hauteur



si **A** = 50 m (longueur), **B** = 15 m (largeur) et **C** = 3 m (hauteur)
V (volume) = 50 m x 15 m x 3 m = **2250 m³**

- A = longueur**
- B = largeur**
- C = hauteur**
- V = volume**
- ST = surface totale**
- SP = surface du plancher**
- TA = taux d'application**
- TD = taux de dilution**
- QS = quantité de solution**
- QP = quantité de produit**



exemples d'application

Programme de biosécurité

Poulailler Poulet à griller

Longueur (A) = 100 pi • Largeur (B) = 40 pi • Hauteur (C) = 10 pi



Biosolve
Détergent alcalin
4-20-200 L
vaporisation 0,5 %

$$\begin{aligned} \text{ST} &= 2 (A \times B) + 2 (A \times C) + 2 (B \times C) \\ &= 2 (100 \times 40) + 2 (100 \times 10) + 2 (40 \times 10) \\ &= 2 (4000) + 2 (1000) + 2 (400) \\ &= 8000 + 2000 + 800 \\ &= 10\,800 \text{ pi}^2 \end{aligned}$$

$$\begin{aligned} \text{QS} &= \text{ST} \times \text{TA} \\ &= 13\,500 \text{ pi}^2 \times 0,5 \text{ L}/10 \text{ pi}^2 \\ &= (13\,500 \times 0,5)/10 \\ &= 675 \text{ L de solution} \end{aligned}$$

$$\begin{aligned} \text{Facteur de correction} &= 1,25 \\ &= 10\,800 \text{ pi}^2 \times 1,25 \\ &= 13\,500 \text{ pi}^2 \end{aligned}$$

$$\begin{aligned} \text{QP} &= \text{QS} \times \text{TD} \\ &= 675 \text{ L} \times 0,5 \% \\ &= (675 \times 0,5)/100 \\ &= 3,4 \text{ L de Biosolve} \end{aligned}$$



Virkon®
Désinfectant en poudre
mélange de peroxygènes
50-500 g (sachets)
5-20 kg
vaporisation

$$\begin{aligned} \text{QS} &= \text{ST} \times \text{TA} \\ &= 13\,500 \text{ pi}^2 \times 0,25 \text{ L}/10 \text{ pi}^2 \\ &= (13\,500 \times 0,25)/10 \\ &= 340 \text{ L de solution} \end{aligned}$$

$$\begin{aligned} \text{QP} &= \text{QS} \times \text{TD} \\ &= 340 \text{ L} \times 10 \text{ g/L} \\ &= 340 \times 10 \\ &= 3400 \text{ g} \\ &= 3,4 \text{ kg de Virkon®} \end{aligned}$$



OO-Cide
Désinfectant
coccidiocide
3,1 kg

$$\begin{aligned} \text{SP} &= A \times B \\ &= 100 \times 40 \\ &= 4000 \text{ pi}^2 \end{aligned}$$

$$\begin{aligned} \text{QS} &= \text{SP} \times \text{TA} \\ &= 4000 \text{ pi}^2 \times 0,3 \text{ L}/10 \text{ pi}^2 \\ &= (4000 \times 0,3)/10 \\ &= 120 \text{ L de solution} \end{aligned}$$

$$\begin{aligned} \text{QP} &= \text{QS}/30 \\ &= 120 \text{ L}/30 \\ &= 4 \text{ sachets de N°1 et} \\ &= 4 \text{ sachets de N°2} \end{aligned}$$

Poulailler Pondeuses

Longueur (A) = 100 pi • Largeur (B) = 40 pi • Hauteur (C) = 10 pi



Biofoam
Détergent acide
20 L
mousse

$$\begin{aligned} \text{ST} &= 2 (A \times B) + 2 (A \times C) + 2 (B \times C) \\ &= 2 (100 \times 40) + 2 (100 \times 10) + 2 (40 \times 10) \\ &= 2 (4000) + 2 (1000) + 2 (400) \\ &= 8000 + 2000 + 800 \\ &= 10\,800 \text{ pi}^2 \end{aligned}$$

$$\begin{aligned} \text{QS} &= \text{ST} \times \text{TA} \\ &= 16\,200 \text{ pi}^2 \times 0,25 \text{ L}/10 \text{ pi}^2 \\ &= (16\,200 \times 0,25)/10 \\ &= 405 \text{ L de solution} \end{aligned}$$

$$\begin{aligned} \text{Facteur de correction} &= 1,5 \\ &= 10\,800 \text{ pi}^2 \times 1,5 \\ &= 16\,200 \text{ pi}^2 \end{aligned}$$

$$\begin{aligned} \text{QP} &= \text{QS} \times \text{TD} \\ &= 405 \text{ L} \times 2 \% \\ &= (405 \times 2)/100 \\ &= 8,1 \text{ L de Biofoam} \end{aligned}$$



Virkon®
Désinfectant en poudre
mélange de peroxygènes
50-500 g (sachets)
5-20 kg
vaporisation

$$\begin{aligned} \text{QS} &= \text{ST} \times \text{TA} \\ &= 16\,200 \text{ pi}^2 \times 0,25 \text{ L}/10 \text{ pi}^2 \\ &= (16\,200 \times 0,25)/10 \\ &= 405 \text{ L de solution} \end{aligned}$$

$$\begin{aligned} \text{QP} &= \text{QS} \times \text{TD} \\ &= 405 \text{ L} \times 10 \text{ g/L} \\ &= 405 \times 10 \\ &= 4050 \text{ g} \\ &= 4,05 \text{ kg de Virkon®} \end{aligned}$$

Porcs

Longueur (A) = 100 pi • Largeur (B) = 30 pi • Hauteur (C) = 10 pi



Biosolve
Détergent alcalin
4-20-200 L
vaporisation 1 %

$$\begin{aligned} \text{ST} &= 2 (A \times B) + 2 (A \times C) + 2 (B \times C) \\ &= 2 (100 \times 30) + 2 (100 \times 10) + 2 (30 \times 10) \\ &= 2 (3000) + 2 (1000) + 2 (300) \\ &= 6000 + 2000 + 600 \\ &= 8600 \text{ pi}^2 \end{aligned}$$

$$\begin{aligned} \text{QS} &= \text{ST} \times \text{TA} \\ &= 12\,900 \text{ pi}^2 \times 0,5 \text{ L}/10 \text{ pi}^2 \\ &= (12\,900 \times 0,5)/10 \\ &= 645 \text{ L de solution} \end{aligned}$$

$$\begin{aligned} \text{Facteur de correction} &= 1,5 \\ &= 8600 \text{ pi}^2 \times 1,5 \\ &= 12\,900 \text{ pi}^2 \end{aligned}$$

$$\begin{aligned} \text{QP} &= \text{QS} \times \text{TD} \\ &= 645 \text{ L} \times 1 \% \\ &= (645 \times 1)/100 \\ &= 6,45 \text{ L de Biosolve} \end{aligned}$$



Virkon®
Désinfectant en poudre
mélange de peroxygènes
50-500 g (sachets)
5-20 kg
brumisation

$$\begin{aligned} \text{V} &= A \times B \times C \\ &= 100 \times 30 \times 10 \\ &= 30\,000 \text{ pi}^3 \end{aligned}$$

$$\begin{aligned} \text{Facteur de correction} &= 1,25 \\ &= 30\,000 \text{ pi}^3 \times 1,25 \\ &= 45\,000 \text{ pi}^3 \end{aligned}$$

$$\begin{aligned} \text{QS} &= \text{ST} \times \text{TA} \\ &= 45\,000 \text{ pi}^3 \times 3 \text{ L}^*/3500 \text{ pi}^3 \text{ (*entre 1-4 L/3500 pi}^3\text{)} \\ &= (45\,000 \times 3)/3500 \\ &= 39 \text{ L de solution} \end{aligned}$$




$$\begin{aligned} \text{QP} &= \text{QS} \times \text{TD} \\ &= 39 \text{ L} \times 40 \text{ g}^*/\text{L} \text{ (*entre 10-50 g/L)} \\ &= 39 \times 40 \\ &= 1560 \text{ g} \\ &= 1,6 \text{ kg de Virkon®} \end{aligned}$$



dilution rates






Biosecurity program

cleaning, disinfection and sanitation of the water system

product	dilution rate	pipe diameter (inches)	quantity of disinfectant solution (L/10 ft)
Biofoam 	Without animals	1-5% (10-50 mL/L)	0.4
		3/4	0.9
		1	1.6
Virkon® (disinfection) 	Without animals	1 : 100 (10 g/L)	0.4
		3/4	0.9
		1	1.6
Hyperox 	Without animals	1 : 256 (4 mL/L)	0.4
		3/4	0.9
		1	1.6



Make sure the product reaches the end of the line. Leave the solution in the line for at least 20 minutes (**Biofoam**) and 10 minutes (**Virkon®** or **Hyperox**) before draining and rinse with clean water.

cleaning and disinfection of barn without animals

product		dilution rate (DR)	application rate (AR)	quantity of solution (QS)	quantity of product (QP)
 Biosolve	Sprayed	0.5% (5 mL/L)	0.5 L/m ² (or 10 ft ²)	TS x AR	QS x DR
	Sprayed	1% (10 mL/L)	0.5 L/m ² (or 10 ft ²)	TS x AR	QS x DR
	Foamed	2% (20 mL/L)	0.25 L/m ² (or 10 ft ²)	TS x AR	QS x DR
 Biofoam	Sprayed	1% (10 mL/L)	0.5 L/m ² (or 10 ft ²)	TS x AR	QS x DR
	Foamed	2% (20 mL/L)	0.25 L/m ² (or 10 ft ²)	TS x AR	QS x DR
 Virkon®	Sprayed	10 g/L	0.25 L/m ² (or 10 ft ²)	TS x AR	QS x DR
	Fogged	10-50 g/L	1-4 L/100 m ³ (or 3500 ft ³)	V x AR	QS x DR
 Hyperox	Sprayed	4 mL/L (1/256)	0.3 L/m ² (or 10 ft ²)	TS x AR	QS x DR
	Sprayed	8 mL/L (1/128)	0.3 L/m ² (or 10 ft ²)	TS x AR	QS x DR
	Fogged	100 mL/L (1/10)	0.015 L/m ³ (or 35 ft ³)	V x AR	QS x DR
 OO-Cide	Sprayed	1 pack/30 L (of N°1 and N°2)	0.3 L/m ² (or 10 ft ²)	FS x AR	QS/30

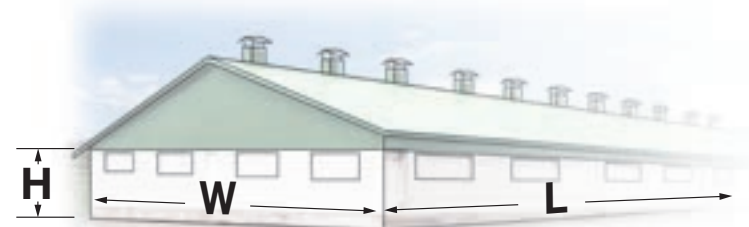
L = length; W = width; H = height • TS = Total Surface = 2 (L x W) + 2 (L x H) + 2 (W x H) • FS = Floor Surface = L x W • V = Volume = L x W x H
Correction Factor • Consider fixed equipment and partitions, a correction factor on the total surface should be applied: x 1.25 for poultry on floor and x 1.5 for poultry in cages and for swine

foot-baths and wheel dips

product	dilution rate	product	dilution rate
 Virkon®	1 : 100 (10 g/L)	 Hyperox	1 : 128 (8 mL/L)

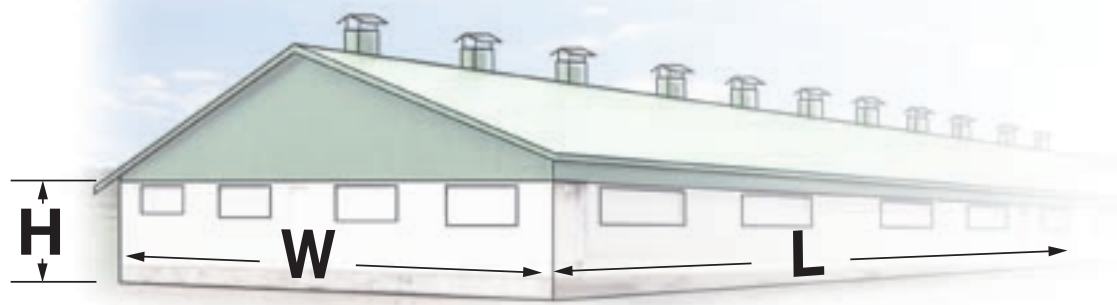
Change foot-baths at least weekly for **Virkon®**, twice weekly for **Hyperox**, or when soiled.

L = length; W = width; H = height



if **L = 50 m** (length), **W = 15 m** (width) and **H = 3 m** (height)
V (volume) = 50 m x 15 m x 3 m = **2250 m³**

- L = length
- W = width
- H = height
- V = volume
- TS = total surface
- FS = floor surface
- AR = application rate
- DR = dilution rate
- QS = quantity of solution
- QP = quantity of product



application examples

Biosecurity Program

Poultry Barns Broiler

Length (L) = 100 ft • Width (W) = 40 ft • Height (H) = 10 ft



Biosolve
Alkaline detergent
4-20-200 L
Sprayed 0.5%

$$\begin{aligned} \text{TS} &= 2(L \times W) + 2(L \times H) + 2(W \times H) \\ &= 2(100 \times 40) + 2(100 \times 10) + 2(40 \times 10) \\ &= 2(4000) + 2(1000) + 2(400) \\ &= 8000 + 2000 + 800 \\ &= 10\,800 \text{ ft}^2 \end{aligned}$$

$$\begin{aligned} \text{QS} &= \text{TS} \times \text{AR} \\ &= 13\,500 \text{ ft}^2 \times 0.5 \text{ L}/10 \text{ ft}^2 \\ &= (13\,500 \times 0.5)/10 \\ &= 675 \text{ L of solution} \end{aligned}$$

$$\begin{aligned} \text{Correction factor} &= 1.25 \\ &= 10\,800 \text{ ft}^2 \times 1.25 \\ &= 13\,500 \text{ ft}^2 \end{aligned}$$

$$\begin{aligned} \text{QP} &= \text{QS} \times \text{DR} \\ &= 675 \text{ L} \times 0.5\% \\ &= (675 \times 0.5)/100 \\ &= 3.4 \text{ L of Biosolve} \end{aligned}$$



Virkon®
Peroxygen compounds disinfectant
50-500 g (pouches)
5-20 kg
sprayed

$$\begin{aligned} \text{QS} &= \text{TS} \times \text{AR} \\ &= 13\,500 \text{ ft}^2 \times 0.25 \text{ L}/10 \text{ ft}^2 \\ &= (13\,500 \times 0.25)/10 \\ &= 340 \text{ L of solution} \end{aligned}$$

$$\begin{aligned} \text{QP} &= \text{QS} \times \text{DR} \\ &= 340 \text{ L} \times 10 \text{ g/L} \\ &= 340 \times 10 \\ &= 3\,400 \text{ g} \\ &= 3.4 \text{ kg of Virkon®} \end{aligned}$$



OO-Cide
Coccidiocide disinfectant
3.1 kg

$$\begin{aligned} \text{FS} &= L \times W \\ &= 100 \times 40 \\ &= 4000 \text{ ft}^2 \end{aligned}$$

$$\begin{aligned} \text{QS} &= \text{FS} \times \text{AR} \\ &= 4000 \text{ ft}^2 \times 0.3 \text{ L}/10 \text{ ft}^2 \\ &= (4000 \times 0.3)/10 \\ &= 120 \text{ L of solution} \end{aligned}$$

$$\begin{aligned} \text{QP} &= \text{QS}/30 \\ &= 120 \text{ L}/30 \\ &= 4 \text{ pouches of N°1 \& 4 pouches of N°2} \end{aligned}$$

Poultry Barns Layer

Length (L) = 100 ft • Width (W) = 40 ft • Height (H) = 10 ft



Biofoam
Acidic detergent
20 L
foamed

$$\begin{aligned} \text{TS} &= 2(L \times W) + 2(L \times H) + 2(W \times H) \\ &= 2(100 \times 40) + 2(100 \times 10) + 2(40 \times 10) \\ &= 2(4000) + 2(1000) + 2(400) \\ &= 8000 + 2000 + 800 \\ &= 10\,800 \text{ ft}^2 \end{aligned}$$

$$\begin{aligned} \text{QS} &= \text{TS} \times \text{AR} \\ &= 16\,200 \text{ ft}^2 \times 0.25 \text{ L}/10 \text{ ft}^2 \\ &= (16\,200 \times 0.25)/10 \\ &= 405 \text{ L of solution} \end{aligned}$$

$$\begin{aligned} \text{Correction factor} &= 1.5 \\ &= 10\,800 \text{ ft}^2 \times 1.5 \\ &= 16\,200 \text{ ft}^2 \end{aligned}$$

$$\begin{aligned} \text{QP} &= \text{QS} \times \text{DR} \\ &= 405 \text{ L} \times 2\% \\ &= (405 \times 2)/100 \\ &= 8.1 \text{ L of Biofoam} \end{aligned}$$



Virkon®
Peroxygen compounds disinfectant
50-500 g (pouches)
5-20 kg
sprayed

$$\begin{aligned} \text{QS} &= \text{TS} \times \text{AR} \\ &= 16\,200 \text{ ft}^2 \times 0.25 \text{ L}/10 \text{ ft}^2 \\ &= (16\,200 \times 0.25)/10 \\ &= 405 \text{ L of solution} \end{aligned}$$

$$\begin{aligned} \text{QP} &= \text{QS} \times \text{DR} \\ &= 405 \text{ L} \times 10 \text{ g/L} \\ &= 405 \times 10 \\ &= 4050 \text{ g} \\ &= 4.05 \text{ kg of Virkon®} \end{aligned}$$

Swine Barns

Length (L) = 100 ft • Width (W) = 30 ft • Height (H) = 10 ft



Biosolve
Alkaline detergent
4-20-200 L
sprayed 1%

$$\begin{aligned} \text{TS} &= 2(L \times W) + 2(L \times H) + 2(W \times H) \\ &= 2(100 \times 30) + 2(100 \times 10) + 2(30 \times 10) \\ &= 2(3000) + 2(1000) + 2(300) \\ &= 6000 + 2000 + 600 \\ &= 8600 \text{ ft}^2 \end{aligned}$$

$$\begin{aligned} \text{QS} &= \text{TS} \times \text{AR} \\ &= 12\,900 \text{ ft}^2 \times 0.5 \text{ L}/10 \text{ ft}^2 \\ &= (12\,900 \times 0.5)/10 \\ &= 645 \text{ L of solution} \end{aligned}$$

$$\begin{aligned} \text{Correction factor} &= 1.5 \\ &= 8600 \text{ ft}^2 \times 1.5 \\ &= 12\,900 \text{ ft}^2 \end{aligned}$$

$$\begin{aligned} \text{QP} &= \text{QS} \times \text{DR} \\ &= 645 \text{ L} \times 1\% \\ &= (645 \times 1)/100 \\ &= 6.45 \text{ L of Biosolve} \end{aligned}$$



Virkon®
Peroxygen compounds disinfectant
50-500 g (pouches)
5-20 kg
fogged

$$\begin{aligned} \text{V} &= L \times W \times H \\ &= 100 \times 30 \times 10 \\ &= 30\,000 \text{ ft}^3 \end{aligned}$$

$$\begin{aligned} \text{QS} &= \text{V} \times \text{AR} \\ &= 45\,000 \text{ ft}^3 \times 3 \text{ L}^*/3500 \text{ ft}^3 \text{ (*between 1-4 L/3500 ft}^3\text{)} \\ &= (45\,000 \times 3)/3500 \\ &= 39 \text{ L of solution} \end{aligned}$$

$$\begin{aligned} \text{Correction factor} &= 1.5 \\ &= 30\,000 \text{ ft}^3 \times 1.5 \\ &= 45\,000 \text{ ft}^3 \end{aligned}$$

$$\begin{aligned} \text{QP} &= \text{QS} \times \text{DR} \\ &= 39 \text{ L} \times 40 \text{ g}^*/\text{L} \text{ (*between 10-50 g/L)} \\ &= 39 \times 40 \\ &= 1560 \text{ g} \\ &= 1.6 \text{ kg of Virkon®} \end{aligned}$$