Dopharma

Solubility of T.S.-Sol® 20/100 mg/ml in drinking water

T.S.-Sol® 20/100 mg/ml contains trimethoprim and sulfamethoxazole. Both components are poorly soluble in water. In addition, trimethoprim dissolves best in a slightly acidic solution, while sulfamethoxazole dissolves best in a basic solution. However, T.S.-Sol® contains special additives and is therefore **well suitable for use via drinking water including application via dosing equipment**.

Due to the complexity of the product, it is important to use T.S.-Sol® according to the following advice:

- Make sure drinking water pipes and storage vessels are clean.
- Do not use other products together with T.S.-Sol®. Especially acidic products will negatively affect the stability and solubility of T.S.-Sol®.
- For use with dosing equipment, use a concentration in the range:
  150 ml – 250 ml T.S.-Sol® / liter of total stock solution.
  At this concentration, the solution is stable for 24 hours.
- Preferably use tap water with low hardness and a pH of between 5-8, to prepare the concentrated stock solution.
- Administer the daily required amount of T.S.-Sol® over a period of preferably 18 – 24 hours.

Application in a bulk tank

T.S.-Sol® can be added directly to the drinking water to be consumed. Depending on the animal species and drinking water intake, 1.5 to 2.5 liters of T.S.-Sol® 20/100 is usually dissolved in 1000 liters of drinking water.

Application using dosing equipment

The table on the back or page 2 of this flyer indicates which concentrations of concentrated stock solutions can be prepared under different conditions. This is based on the dosage according to the SPC and a distribution over 24 hours.

03-2023

Swine (2.5 ml T.S.-Sol®/10 kg body weight/day)

Daily (24h) drinking water intake as a percentage of body weight	Concentration T.S.-Sol® (product/liter pre-solution) at different dosing device settings					
	0,5%	1%	2%	3%	4%	5%
5%			250 ml	167 ml	125 ml	100 ml
10%		250 ml	125 ml			
15%		167 ml				
20%	250 ml	125 ml				

The green shaded options are preferred to obtain a stable stock solution (150 ml – 250 ml T.S.-Sol® / liter of total stock solution). The orange shaded options are more critical and stability can vary according to the water quality.

Chicken (3.75 ml T.S.-Sol®/10 kg body weight/day)

Daily (24h) drinking water intake as a percentage of body weight	Concentration T.S.-Sol® (product/liter pre-solution) at different dosing device settings					
	0,5%	1%	2%	3%	4%	5%
15%		250 ml	125 ml			
20%		188 ml				
25%	300 ml	150 ml				
30%	250 ml	125 ml				
35%	214 ml	107 ml				
40%	188 ml					

The green shaded options are preferred to obtain a stable stock solution (150 ml – 250 ml T.S.-Sol® / liter of total stock solution). The orange shaded options are more critical and stability can vary according to the water quality

Instructions for preparing 10 liter stock solution in a concentration of 200 ml T.S.-Sol® 20/100 mg/ml per liter total stock solution