



COLD WEATHER TRAILER DISINFECTION PROCEDURE

Prior research ZLWK 35569 indicates that Synergize disinfectant requires 45-60 minutes contact time in order to be effective. Freshly washed trailers taken outside the wash bay can freeze in as little as 20 minutes. Adding Propylene Glycol to a solution of Synergize disinfectant will prevent Synergize from freezing and allow it the necessary contact time in below freezing temperatures.¹

Trailers that are washed and disinfected then put outside in freezing temperatures should increase Synergize concentration from 1:256 to 1:128 and Propylene Glycol should be added at the below recommended rates.

Synergize & Propylene Glycol Application Rate @ 4gpm

Trailer Size	Application Time (minutes)	Water (litres)	Synergize @ 1:128 (ml)	PG 2.5% (0 to -6°C) (litres)	PG 5% (-7 to -12°C) (litres)	PG 10% (<-12°C) (litres)
Straight deck - 53'	5	90	590	2.3	4.5	9.0
Double deck - 53'	8	144	946	3.6	7.2	14.4
Triple deck - 53'	12	216	1,420	5.4	10.8	21.6

Injecting two products through a single downstream injection system, each with a different dilution rate could be an obstacle. To address this issue, we recommend the use of the following example mixing procedures:

*198 Litres water,
1.6 Litres of Synergize disinfectant @ 128:1
5 Litres for 2.5% PG @ 0 to -6 C*

*193 Litres water,
1.6 Litres of Synergize disinfectant @ 128:1
10 Litres for 5% PG @ -7 to -12 C*

*183 Litres water,
1.6 Litres of Synergize disinfectant @ 128:1
20 Litres for 10% PG @ <- 12 C*

Or

*53' triple deck = 216 litres water
PG @ 2.5%= 5 litres; 5%=10 litres; 10%=20 litres
Synergize@1:128 = 1.8 litres*

Mix the PG and Synergize together and adjust the regulator to deliver this into 216 litres of water.

Or

Dilution ratios can be achieved (calibrated) with a foam applicator system by TETRA-CHEM INDUSTRIES LTD.:

- <-12 C preparing a blend of 16 L Synergize to 189 L PG in a 205 L drum and using a 9:1 proportioner with water to generate the 128:1 spray foam*
- 7 to -12 C preparing a blend of 16 L Synergize to 95 L PG/95 L water in a 205 L drum and using a 9:1 proportioner with water to generate the 128:1 spray foam*
- 0 to -6 C preparing a blend of 16 L Synergize to 48 L PG/142 L water in a 205 L drum and using a 9:1 proportioner with water to generate the 128:1 spray foam*

¹An update on PRRSV biosecurity research, Scott Dee, DVM MS PhD Dipl ACVM, John Deen, DVM MS PhD Dipl ACVP, Jennifer Schurrer, BA, Jenny Cho, BA, Roger Moon PhD, Montserrat Torremorell, DVM PhD, Danny Burns, DVM, George Douthitt, BS, Carlos Pijoan, DVM PhD, Department of Veterinary Population Medicine, University of Minnesota. Allen D. Leman Swine Conference, 2004.