## **Electronic Supplementary Information**

## Nitric Oxide-Releasing Emulsion Enforced with Hyaluronic Acid and Vitamin E

Janet P. Yapor,<sup>a</sup> Jenna L. Gordon,<sup>a</sup> Christina N. Henderson,<sup>b</sup> Melissa M. Reynolds\* <sup>ac</sup>

<sup>a</sup> Department of Chemistry, Colorado State University, Fort Collins, CO 80523, USA.
<sup>b</sup> Department of Biochemistry and Molecular Biology, Colorado State University, Fort Collins, CO 80523, USA.

<sup>c</sup> School of Biomedical Engineering, Colorado State University, Fort Collins, CO 80523, USA. <sup>\*</sup>Corresponding author. E-mail: Melissa.Reynolds@colostate.edu

## **Table of Contents**

Figure S1.	Nitric oxide release profiles of replicate experiments $(n = 3)$	1
Figure S2.	Cumulative nitric oxide release profiles of replicate experiments $(n = 3)$	1
Figure S3.	Measurement of emulsion pH with respect to GSNO concentration	2
Table S1. S	Summarized kinematic viscosity and density results	2
Table S2. p	H analysis of the S-nitrosated emulsion	3



Figure S1. Nitric oxide release profiles of replicate experiments (n = 3).



Figure S2. Cumulative nitric oxide release profiles of replicate experiments (n = 3).



Figure S3. Measurement of emulsion pH with respect to GSNO concentration. The GSNO concentration at 1.72% was determined based on the pH of the emulsion.

Table S1. Summarized kinematic viscosity and density results. All samples were tested in replicate ( $n \ge 3$ ) and the results are reported as the mean ± standard deviation.

	Kinematic	Density <sup>b</sup>
	Viscosity <sup>a</sup>	(g mL <sup>-1</sup> )
	(cSt)	
S-nitrosated	11330 ± 485	0.75 ± 0.05
emulsion		
Non-nitrosated	9501 ± 1203	0.83 ± 0.06
emulsion		

<sup>a</sup> Values obtained using a Fungilab rotational viscometer.

<sup>b</sup> Values determined experimentally by noting the mass of a specific volume of sample.

Table S2. pH analysis of the S-nitrosated emulsion. All samples were tested in replicate  $(n \ge 3)$  and the results are reported as the mean ± standard deviation.

	pH of	S-nitrosated
	emuision	
Week 0	$5.5 \pm 0.4$	
Week 1	5.3 ± 0.2	
Week 2	4.0 ± 0.1	
Week 3	4.0 ± 0.1	
Week 4	3.9 ± 0.02	
Week 8	3.9 ± 0.01	
Week 10	3.9 ± 0.1	
Week 12	3.8 ± 0.09	

<sup>a</sup> Values obtained using a Mettler Toledo Seven Easy pH meter equipped with a Mettler Toledo InLab® Routine Pro pH probe.