

Table S1. Decontamination efficacy in terms of mean LR for *B.a.* and *B.g.* for tests 1 through 5. Bold text indicates value is significantly higher (P<0.05) when comparing *B.a.* and *B.g.*

Test No.	Material	B.a. Efficacy	B.g. Efficacy
1	Rubber Flooring	7.33	6.35
	New Grease with Spores Mixed	0.85	1.57
	Used Railcar Filter	≥7.89	≥6.75
	Mylar	≥7.83	≥7.13
	Fiberglass Interior Siding	4.93	5.61
	Unpainted Concrete	1.57	1.03
2	Rubber Flooring	≥8.07	≥7.30
	New Grease (SOT)	5.93	6.39
	New Railcar Air Filter	≥7.99	6.59
	Mylar	7.56	6.98
	Fiberglass Interior Siding	6.03	5.84
	Railcar Carpet	1.24	0.70
3	Rubber Flooring	≥7.94	≥7.21
	Upholstery	≥8.08	≥6.86
	Aluminum	≥7.88	≥7.06
	Mylar	≥8.06	≥6.89
	Fiberglass Interior Siding	≥7.58	≥6.47
	Railcar Carpet	2.37	2.49
4		1.71	2.54
		2.69	2.68
	Railcar Carpet	1.84	2.71
		1.66	2.34
		2.84	3.27
5	Railcar Carpet	2.16	2.23
	Unpainted Concrete	1.66	0.30
	Used Railcar Air Filter	≥7.80	≥6.72
	New Grease (SOT)	5.97	6.38
	New Grease with Spores Mixed	1.78	4.83
	Used Grease (SOT)	≥7.72	5.94

Table S2. Decontamination efficacy in terms of mean LR for *B.a.* and *B.g.* for tests 6 through 10. Bold text indicates value is significantly higher (P<0.05) when comparing *B.a.* and *B.g.*

Test No.	Material	B.a. Efficacy	B.g. Efficacy
6	Railcar Carpet	6.26	1.36
	New Grease with Spores Mixed	2.77	2.33
	Used Railcar Air Filter	≥7.80	≥6.91
	Fiberglass Interior Siding	6.86	≥6.84
	Unpainted Concrete	2.70	0.78
	Used Grease (SOT)	6.22	≥6.88
7	Railcar Carpet	3.31	2.09
	New Grease with Spores Mixed	1.99	2.83
	New Grease (SOT)	7.61	5.21
	Fiberglass Interior Siding	5.56	5.24
	Unpainted Concrete	1.91	2.21
	Used Grease (SOT)	≥ 7.91	5.98
8	Rubber Flooring	7.11	≥7.31
	New Grease (SOT)	3.40	3.58
	New Railcar Air Filter	6.47	≥6.64
	Mylar	7.62	≥7.26
	Fiberglass Interior Siding	3.39	3.21
	Railcar Carpet	0.54	1.43
9	Railcar Carpet	0.73	0.99
	Unpainted Concrete	1.24	1.36
	Used Railcar Air Filter	≥7.68	≥6.96
	New Grease (SOT)	3.81	4.97
	New Grease with Spores Mixed	0.77	2.16
	Used Grease (SOT)	3.31	5.50
10	Rubber Flooring	≥7.89	≥7.28
	Upholstery	7.12	≥7.20
	Aluminum	7.38	≥7.35
	Mylar	≥7.78	≥7.19
	Fiberglass Interior Siding	6.56	5.30
	Railcar Carpet	0.99	1.48

Table S3. Decontamination efficacy in terms of mean LR for *B.a.* and *B.g.* for tests 11 through 15. Bold text indicates value is significantly higher (P<0.05) when comparing *B.a.* and *B.g.*

Test No.	Material	B.a. Efficacy	B.g. Efficacy
11	Railcar Carpet	3.69	1.13
	New Grease with Spores Mixed	0.67	2.82
	New Industrial Carpet	4.32	4.81
	Fiberglass Interior Siding	6.17	≥6.61
	Unpainted Concrete	1.5	2.13
	Used Grease (SOT)	5.29	5.75
12	Rubber Flooring	≥7.98	≥6.81
	Upholstery	≥7.99	≥6.23
	Aluminum	≥8.01	≥7.18
	Mylar	≥7.93	≥6.96
	Fiberglass Interior Siding	6.77	6.00
	Carpet	4.51	5.71
13	Rubber Flooring	≥7.93	6.12
	New Grease (SOT)	1.70	3.74
	New Railcar Air Filter	5.85	≥6.38
	Mylar	≥7.93	≥6.99
	Fiberglass Interior Siding	3.58	4.07
	Railcar Carpet	0.39	0.41
14	Railcar Carpet	2.29	2.27
	New Grease with Spores Mixed	2.69	2.59
	Used Railcar Air Filter	6.74	≥6.82
	Fiberglass Interior Siding	6.61	5.26
	Unpainted Concrete	1.57	1.41
	Used Grease (SOT)	5.73	≥6.92
15	Railcar Carpet	3.43	1.62
	New Grease with Spores Mixed	2.64	0.8
	Used Railcar Air Filter	≥ 7.87	5.78
	Fiberglass Interior Siding	5.56	4.32
	Unpainted Concrete	0.7	0.67
	Used Grease (SOT)	4.44	4.08

Table S4. Decontamination efficacy in terms of mean LR for *B.a.* and *B.g.* for tests 16 through 21. Bold text indicates value is significantly higher (P<0.05) when comparing *B.a.* and *B.g.*

Test No.	Material	<i>B.a.</i> Efficacy	<i>B.g.</i> Efficacy
16	Railcar Carpet	2.44	2.46
	Unpainted Concrete	1.27	2.07
	Used Railcar Air Filter	≥7.85	≥7.20
	New Grease (SOT)	7.00	≥6.41
	New Grease with Spores Mixed	1.00	1.57
	Used Grease (SOT)	5.76	5.67
17	Rubber Flooring	≥7.84	≥7.04
	Upholstery	≥7.97	≥7.56
	Aluminum	≥7.95	≥7.65
	Mylar	≥7.90	≥7.39
	Fiberglass Interior Siding	5.97	≥6.66
	Railcar Carpet	3.85	1.70
18	Railcar Carpet	4.90	2.92
	New Grease with Spores Mixed	2.40	2.47
	Used Railcar Air Filter	≥7.92	≥6.93
	Fiberglass Interior Siding	6.94	6.71
	Unpainted Concrete	2.41	2.04
	Used Grease (SOT)	7.17	5.94
19	Railcar Carpet	0.49	-0.04
	Unpainted Concrete	0.6	0.64
	Used Railcar Air Filter	2.1	2.63
	New Grease (SOT)	0.21	0.92
	New Grease with Spores Mixed	0.13	1.36
	Used Grease (SOT)	0.24	0.91
20	Railcar Carpet	1.43	0.90
	New Grease with Spores Mixed	1.65	2.55
	Used Railcar Air Filter	7.37	≥6.84
	Fiberglass Interior Siding	5.38	≥6.63
	Unpainted Concrete	2.06	1.90
	Used Grease (SOT)	3.87	5.92
21	Carpet	1.01	1.05
	New Grease with Spores Mixed	1.15	1.25
	Used Railcar Air Filter	7.08	≥6.96
	Fiberglass Interior Siding	5.30	5.63
	Unpainted Concrete	1.87	1.10
	Used Grease (SOT)	2.34	4.98