

ORGANIC  
PEROXIDE  
PRODUCERS  
SAFETY  
DIVISION

## HMIS III<sup>®</sup> CLASSIFICATION TABLE FOR ORGANIC PEROXIDES

February 2006

Prepared by the ORGANIC PEROXIDE PRODUCERS

SAFETY DIVISION of



THE SOCIETY OF THE PLASTICS INDUSTRY, INC.

<http://www.plasticsindustry.org/about/hmis.pdf>

CAS #	ORGANIC PEROXIDE	Concen. (%)	Diluent type A (%)	Diluent type B (%)	Inert solid (%)	Water (%)	HMIS Health Hazard Rating	HMIS Flamm. Hazard Rating	HMIS Physical Hazard Rating
37187-22-7	acetyl acetone peroxide	≤ 42	≥ 48			≥ 8	2	1	3
37187-22-7	acetyl acetone peroxide	≤ 32 as a paste					2	NE	3
3179-56-4	acetyl cyclohexanesulphonyl peroxide	≤ 82				≥ 12	3	NE	4
3179-56-4	acetyl cyclohexanesulphonyl peroxide	≤ 32		≥ 68			3	4	3
3425-61-4	tert-amyl hydroperoxide	≤ 88	≥ 6			≥ 6	3	2	2
690-83-5	tert-amyl peroxyacetate	≤ 62	≥ 38				3	2	3
4511-39-1	tert-amyl peroxybenzoate	≤ 100					2	2	3
686-31-7	tert-amyl peroxy-2-ethylhexanoate	≤ 100					2	2	3
70833-40-8	tert-amylperoxy 2-ethylhexyl carbonate	≤ 100					1	2	3
2372-22-7	tert-amylperoxy isopropyl carbonate	≤ 77	≥ 23				NE	2	3
68299-16-1	tert-amyl peroxyneodecanoate	≤ 77		≥ 23			1	2	3
29240-17-3	tert-amyl peroxy-pivalate	≤ 77		≥ 23			2	2	3
68860-54-8	tert-amylperoxy-3,5,5-trimethylhexanoate	≤ 100					2	2	4
3457-61-2	tert-butyl cumyl peroxide	> 42 - 100					2	2	2
3457-61-2	tert-butyl cumyl peroxide	≤ 52			≥ 48		2	NE	2
995-33-5	n-butyl-4,4-di(tert-butylperoxy)valerate	> 52 - 100					1	2	3
995-33-5	n-butyl-4,4-di(tert-butylperoxy)valerate	≤ 52			≥ 48		1	NE	2
75-91-2	tert-butyl hydroperoxide	> 79 - 90				≥ 10	3	3	3
75-91-2	tert-butyl hydroperoxide	≤ 80	≥ 20				3	NE	3
75-91-2	tert-butyl hydroperoxide	≤ 79				≥ 14	3	NE	2
75-91-2	tert-butyl hydroperoxide	≤ 72				≥ 28	3	2	1
75-91-2 + 110-05-4	tert-butyl hydroperoxide + di-tert-butyl peroxide	< 82 + > 9				≥ 7	3	4	3
1931-62-0	tert-butyl monoperoxy-maleate	> 52 - 100					3	2	4
1931-62-0	tert-butyl monoperoxy-maleate	≤ 52	≥ 48				3	NE	3
1931-62-0	tert-butyl monoperoxy-maleate	≤ 52			≥ 48		3	NE	2
1931-62-0	tert-butyl monoperoxy-maleate	≤ 52 as a paste					3	2	2
107-71-1	tert-butyl peroxyacetate	> 52 - 77	≥ 23				2	2	4
107-71-1	tert-butyl peroxyacetate	> 32 - 52	≥ 48				2	2	3
107-71-1	tert-butyl peroxyacetate	≤ 32		≥ 68			2	2	1
614-45-9	tert-butyl peroxybenzoate	> 77 - 100					2	1	3
614-45-9	tert-butyl peroxybenzoate	> 52 - 77	≥ 23				2	2	3
614-45-9	tert-butyl peroxybenzoate	≤ 52			≥ 48		2	NE	3
	tert-butyl peroxybutyl fumarate	≤ 52	≥ 48				NE	NE	3
23474-91-1	tert-butyl peroxy-crotonate	≤ 77	≥ 23				2	2	3
2550-33-6	tert-butyl peroxydiethylacetate	≤ 100					3	2	3
3006-82-4	tert-butyl peroxy-2-ethylhexanoate	> 52 - 100					1	2	3
3006-82-4	tert-butyl peroxy-2-ethylhexanoate	> 32 - 52		≥ 48			1	2	2
3006-82-4	tert-butyl peroxy-2-ethylhexanoate	≤ 52			≥ 48		1	NE	2
3006-82-4	tert-butyl peroxy-2-ethylhexanoate	≤ 32		≥ 68			1	2	1
3006-82-4 + 2167-23-9	tert-butyl peroxy-2-ethylhexanoate + 2,2-di(tert-butylperoxy)butane	≤ 12 + ≤ 14	≥ 14		≥ 60		1	NE	3
3006-82-4 + 2167-23-9	tert-butyl peroxy-2-ethylhexanoate + 2,2-di(tert-butylperoxy)butane	≤ 31 + ≤ 36		≥ 33			1	NE	3
34443-12-4	tert-butyl peroxy 2-ethylhexyl carbonate	≤ 100					1	1	3
109-13-7	tert-butyl peroxyisobutyrate	> 52 - 77		≥ 23			1	2	4
109-13-7	tert-butyl peroxyisobutyrate	≤ 52		≥ 48			1	3	3
2372-21-6	tert-butylperoxy isopropyl carbonate	≤ 77	≥ 23				2	2	3
96319-55-0	1-(2-tert-butylperoxy isopropyl)-3-isopropenylbenzene	≤ 77	≥ 23				NE	NE	3
96319-55-0	1-(2-tert-butylperoxy isopropyl)-3-isopropenylbenzene	≤ 42			≥ 58		NE	NE	2
22313-62-8	tert-butyl peroxy-2-methylbenzoate	≤ 100					3	4	3
26748-41-4	tert-butyl peroxyneodecanoate	> 77 - 100					2	3	3
26748-41-4	tert-butyl peroxyneodecanoate	≤ 77		≥ 23			2	2	3
26748-41-4	tert-butyl peroxyneodecanoate	≤ 52 as a stable dispersion in water					2	NE	1
26748-41-4	tert-butyl peroxyneodecanoate	≤ 42 as a stable dispersion in water (frozen)					2	NE	2
26748-41-4	tert-butyl peroxyneodecanoate	≤ 32	≥ 68				2	NE	1
26748-38-9	tert-butyl peroxyneohexanoate	≤ 77	≥ 23				1	2	3
26748-38-9	tert-butyl peroxyneohexanoate	≤ 42 as a stable dispersion in water					1	NE	2
927-07-1	tert-butyl peroxy-pivalate	> 67 - 77	≥ 23				2	2	3

CAS #	ORGANIC PEROXIDE	Concen. (%)	Diluent type A (%)	Diluent type B (%)	Inert solid (%)	Water (%)	HMIS Health Hazard Rating	HMIS Flamm. Hazard Rating	HMIS Physical Hazard Rating	
927-07-1	tert-butyl peroxy pivalate	> 27 - 67		≥ 33			2	2	3	
927-07-1	tert-butyl peroxy pivalate	≤ 27		≥ 73			2	2	1	
62476-60-6	tert-butylperoxy stearyl carbonate	≤ 100					NE	NE	3	
13122-18-4	tert-butyl peroxy-3,5,5-trimethylhexanoate	> 32 - 100					2	1	3	
13122-18-4	tert-butyl peroxy-3,5,5-trimethylhexanoate	≤ 32		≥ 68			2	2	1	
	3-chloroperoxybenzoic acid	> 57 - 86			≥ 14		NE	NE	4	
	3-chloroperoxybenzoic acid	≤ 57			≥ 3	≥ 40	NE	NE	3	
	3-chloroperoxybenzoic acid	≤ 77			≥ 6	≥ 17	NE	NE	3	
80-15-9	cumyl hydroperoxide	> 90 - 98	≤ 10				3	1	2	
80-15-9	cumyl hydroperoxide	≤ 90	≥ 10				3	2	1	
26748-47-0	cumyl peroxyneodecanoate	≤ 77		≥ 23			1	3	3	
26748-47-0	cumyl peroxyneodecanoate	≤ 52 as a stable dispersion in water						1	NE	1
104852-44-0	cumyl peroxyneohexanoate	≤ 77	≥ 23				1	3	3	
	cumyl peroxy pivalate	≤ 77		≥ 23			NE	3	3	
12262-58-7	cyclohexanone peroxide(s)	≤ 91				≥ 9	3	NE	3	
12262-58-7	cyclohexanone peroxide(s)	≤ 72	≥ 28				3	NE	3	
12262-58-7	cyclohexanone peroxide(s)	≤ 72 as a paste						3	NE	3
12262-58-7	cyclohexanone peroxide(s)	≤ 32			≥ 68		3	NE	0	
	diacetone alcohol peroxides	≤ 57		≥ 26		≥ 8	NE	NE	3	
110-22-5	diacetyl peroxide	≤ 27		≥ 73			1	2	3	
10508-09-5	di-tert-amyl peroxide	≤ 100					2	4	2	
15667-10-4	1,1-di(tert-amylperoxy)cyclohexane	≤ 82	≥ 18				1	2	3	
94-36-0	dibenzoyl peroxide	> 51 - 100			≤ 48		2	4	4	
94-36-0	dibenzoyl peroxide	> 77 - 94				≥ 6	2	4	4	
94-36-0	dibenzoyl peroxide	≤ 77				≥ 23	2	2	3	
94-36-0	dibenzoyl peroxide	≤ 62			≥ 28	≥ 10	2	NE	3	
94-36-0	dibenzoyl peroxide	> 52 - 62 as a paste						2	2	3
94-36-0	dibenzoyl peroxide	> 35 - 52			≥ 48		2	2	3	
94-36-0	dibenzoyl peroxide	> 36 - 42	≥ 18			≤ 40	2	2	2	
94-36-0	dibenzoyl peroxide	≤ 56.5 as a paste					≥ 15	2	2	2
94-36-0	dibenzoyl peroxide	≤ 52 as a paste						2	2	2
94-36-0	dibenzoyl peroxide	≤ 42 as a stable dispersion in water						2	2	1
94-36-0	dibenzoyl peroxide	≤ 35			≥ 65		2	2	0	
15520-11-3	di(4-tert-butylcyclohexyl) peroxydicarbonate	≤ 100					1	2	3	
15520-11-3	di(4-tert-butylcyclohexyl) peroxydicarbonate	≤ 42 as a stable dispersion in water						1	2	1
110-05-4	di-tert-butyl peroxide	> 52 - 100					1	4	2	
110-05-4	di-tert-butyl peroxide	≤ 52		≥ 48			1	4	1	
	di-tert-butyl peroxyazolate	≤ 52	≥ 48				NE	2	3	
2167-23-9	2,2-di(tert-butylperoxy)butane	≤ 52	≥ 48				1	2	3	
	1,6-di(tert-butylperoxy)carbonyloxy hexane	≤ 72	≥ 28				NE	NE	3	
3006-86-8	1,1-di(tert-butylperoxy) cyclohexane	> 80 - 100					1	2	4	
3006-86-8	1,1-di(tert-butylperoxy) cyclohexane	> 52 - 80	≥ 20				1	2	3	
3006-86-8	1,1-di(tert-butylperoxy) cyclohexane	> 42 - 52	≥ 48				1	2	3	
3006-86-8	1,1-di(tert-butylperoxy) cyclohexane	≤ 42	≥ 13		≥ 45		1	NE	3	
3006-86-8	1,1-di(tert-butylperoxy) cyclohexane	≤ 27	≥ 25				1	1	2	
3006-86-8	1,1-di(tert-butylperoxy) cyclohexane	≤ 42	≥ 58				1	2	1	
3006-86-8	1,1-di(tert-butylperoxy) cyclohexane	≤ 13	≥ 13	≥ 74			1	NE	1	
16215-49-9	di-n-butyl peroxydicarbonate	> 27 - 52		≥ 48			1	NE	3	
16215-49-9	di-n-butyl peroxydicarbonate	≤ 27		≥ 73			1	NE	2	
16215-49-9	di-n-butyl peroxydicarbonate	≤ 42 as a stable dispersion in water (frozen)						1	NE	2
19910-65-7	di-sec-butyl peroxydicarbonate	> 52 - 100					1	4	3	
19910-65-7	di-sec-butyl peroxydicarbonate	≤ 52		≥ 48			1	4	3	
25155-25-3	di(2-tert-butylperoxyisopropyl)benzene(s)	> 42 - 100			≤ 57		1	1	3	
25155-25-3	di(2-tert-butylperoxyisopropyl)benzene(s)	≤ 42			≥ 58		1	1	0	
15042-77-0	di(tert-butylperoxy) phthalate	> 42 - 52	≥ 48				NE	2	3	
15042-77-0	di(tert-butylperoxy) phthalate	≤ 52 as a paste						NE	NE	3
15042-77-0	di(tert-butylperoxy) phthalate	≤ 42	≥ 58				NE	1	2	
	2,2-di(tert-butylperoxy)propane	≤ 52	≥ 48				NE	2	3	
	2,2-di(tert-butylperoxy)propane	≤ 42	≥ 13		≥ 45		NE	NE	3	
6731-36-8	1,1-di(tert-butylperoxy)-3,3,5-trimethylcyclohexane	> 90 - 100					1	2	4	

CAS #	ORGANIC PEROXIDE	Concen. (%)	Diluent type A (%)	Diluent type B (%)	Inert solid (%)	Water (%)	HMS Health Hazard Rating	HMS Flamm. Hazard Rating	HMS Physical Hazard Rating	
6731-36-8	1,1-di(tert-butylperoxy)-3,3,5-trimethylcyclohexane	> 57 - 90	≥ 10				1	2	3	
6731-36-8	1,1-di(tert-butylperoxy)-3,3,5-trimethylcyclohexane	≤ 77		≥ 23			1	NE	3	
6731-36-8	1,1-di(tert-butylperoxy)-3,3,5-trimethylcyclohexane	≤ 57			≥ 43		1	2	1	
6731-36-8	1,1-di(tert-butylperoxy)-3,3,5-trimethylcyclohexane	≤ 57	≥ 43				1	NE	2	
6731-36-8	1,1-di(tert-butylperoxy)-3,3,5-trimethylcyclohexane	≤ 32	≥ 26	≥ 42			1	4	2	
26322-14-5	dicetyl peroxydicarbonate	≤ 100					1	2	3	
26322-14-5	dicetyl peroxydicarbonate	≤ 42 as a stable dispersion in water						1	2	1
94-17-7	di-4-chlorobenzoyl peroxide	≤ 77				≥ 23	NE	NE	4	
94-17-7	di-4-chlorobenzoyl peroxide	≤ 52 as a paste						NE	NE	3
94-17-7	di-4-chlorobenzoyl peroxide	≤ 32			≥ 68		NE	NE	0	
80-43-3	dicumyl peroxide	> 52 - 100			≤ 48		1	1	1	
80-43-3	dicumyl peroxide	≤ 52			≥ 48		1	NE	0	
1561-49-5	dicyclohexyl peroxydicarbonate	> 91 - 100					NE	NE	4	
1561-49-5	dicyclohexyl peroxydicarbonate	≤ 91				≥ 9	NE	NE	3	
1561-49-5	dicyclohexyl peroxydicarbonate	≤ 42 as a stable dispersion in water						NE	NE	1
762-12-9	didecanoyl peroxide	≤ 100					1	NE	3	
1705-60-8	2,2-di(4,4-di (tert-butylperoxy) cyclohexyl)-propane	≤ 42				≥ 58	1	NE	3	
1705-60-8	2,2-di(4,4-di (tert-butylperoxy) cyclohexyl)-propane	≤ 22		≥ 78			1	NE	2	
133-14-2	di-2,4-dichlorobenzoyl peroxide	≤ 77				≥ 23	1	NE	4	
133-14-2	di-2,4-dichlorobenzoyl peroxide	≤ 52 as a paste with silicon oil						1	2	3
	di(2-ethoxyethyl) peroxydicarbonate	≤ 52		≥ 48			NE	NE	3	
16111-62-9	di(2-ethylhexyl) peroxydicarbonate	> 77 - 100					2	4	3	
16111-62-9	di(2-ethylhexyl) peroxydicarbonate	≤ 77		≥ 23			2	4	3	
16111-62-9	di(2-ethylhexyl) peroxydicarbonate	≤ 62 as a stable dispersion in water						2	NE	2
16111-62-9	di(2-ethylhexyl) peroxydicarbonate	≤ 52 as a stable dispersion in water (frozen)						2	NE	1
16111-62-9	di(2-ethylhexyl) peroxydicarbonate	≤ 52 as a stable dispersion in water						2	4	1
	2,2-dihydroperoxypropane	≤ 27			≥ 73		NE	NE	4	
	di(1-hydroxycyclohexyl) peroxide	≤ 100					NE	NE	3	
3437-84-1	diisobutryl peroxide	> 32 - 52		≥ 48			3	4	4	
3437-84-1	diisobutryl peroxide	≤ 32		≥ 68			3	NE	3	
	di-isopropylbenzene dihydroperoxide	≤ 82	≥ 5			≥ 5	NE	NE	3	
105-64-6	diisopropyl peroxydicarbonate	> 52 - 100					3	4	4	
105-64-6	diisopropyl peroxydicarbonate	≤ 52		≥ 48			3	NE	3	
105-64-6	diisopropyl peroxydicarbonate	≤ 28	≥ 72				2	NE	3	
105-74-8	dilauroyl peroxide	≤ 100					1	2	3	
105-74-8	dilauroyl peroxide	≤ 42 as a stable dispersion in water						1	NE	1
52238-68-3	di(3-methoxybutyl) peroxydicarbonate	≤ 52		≥ 48			NE	NE	3	
22313-62-8	di(2-methylbenzoyl) peroxide	≤ 87				≥ 13	3	NE	4	
	di(4-methylbenzoyl) peroxide	≤ 52 as a paste with silicon oil						NE	NE	3
	di(3-methylbenzoyl) peroxide + benzoyl (3-methylbenzoyl) peroxide + dibenzoyl peroxide	≤ 20 + ≤ 18 + ≤ 4		≥ 58			NE	NE	3	
2618-77-1	2,5-dimethyl-2,5-di(benzoylperoxy)hexane	> 82 - 100					1	2	4	
2618-77-1	2,5-dimethyl-2,5-di(benzoylperoxy)hexane	≤ 82			≥ 18		1	NE	3	
2618-77-1	2,5-dimethyl-2,5-di(benzoylperoxy)hexane	≤ 82				≥ 18	1	NE	3	
78-63-7	2,5-dimethyl-2,5-di(tert-butylperoxy)hexane	> 52 - 100					2	2	3	
78-63-7	2,5-dimethyl-2,5-di(tert-butylperoxy)hexane	≤ 77			≥ 23		2	2	1	
78-63-7	2,5-dimethyl-2,5-di(tert-butylperoxy)hexane	≤ 47 as a paste						2	1	2
78-63-7	2,5-dimethyl-2,5-di(tert-butylperoxy)hexane	≤ 52	≥ 48				2	2	1	
1068-27-5	2,5-dimethyl-2,5-di(tert-butylperoxy)hexyne-3	> 86 - 100					1	2	4	
1068-27-5	2,5-dimethyl-2,5-di(tert-butylperoxy)hexyne-3	> 52 - 86	≥ 14				1	2	3	
1068-27-5	2,5-dimethyl-2,5-di(tert-butylperoxy)hexyne-3	≤ 52			≥ 48		1	NE	3	
13052-09-0	2,5-dimethyl-2,5-di(2-ethylhexanoylperoxy)hexane	≤ 100					2	2	3	
3025-88-5	2,5-dimethyl-2,5-dihydroperoxyhexane	≤ 82				≥ 18	3	2	3	

CAS #	ORGANIC PEROXIDE	Concen. (%)	Diluent type A (%)	Diluent type B (%)	Inert solid (%)	Water (%)	HMIS Health Hazard Rating	HMIS Flamm. Hazard Rating	HMIS Physical Hazard Rating
	2,5-dimethyl-2,5-di(3,5,5-trimethylhexanoylperoxy)hexane	≤ 77	≥ 23				NE	NE	3
110972-57-1	1,1-dimethyl-3-hydroxybutyl peroxyneohexanoate	≤ 52	≥ 48				NE	2	2
53220-22-7	dimyristyl peroxydicarbonate	≤ 100					1	NE	3
53220-22-7	dimyristyl peroxydicarbonate	≤ 42 as a stable dispersion in water					1	NE	1
	di(2-neodecanoylperoxyisopropyl) benzene	≤ 52	≥ 48				NE	NE	3
	di-n-nonanoyl peroxide	≤ 100					NE	NE	3
762-16-3	di-n-octanoyl peroxide	≤ 100					1	NE	3
41935-39-1	di(2-phenoxyethyl) peroxydicarbonate	> 85 - 100					1	NE	4
41935-39-1	di(2-phenoxyethyl) peroxydicarbonate	≤ 85				≥ 15	1	NE	3
	dipropionyl peroxide	≤ 27		≥ 73			NE	NE	2
16066-38-9	di-n-propyl peroxydicarbonate	≤ 100					2	4	3
16066-38-9	di-n-propyl peroxydicarbonate	≤ 77		≥ 23			2	4	3
123-23-9	disuccinic acid peroxide	> 72 - 100					3	NE	4
123-23-9	disuccinic acid peroxide	≤ 72				≥ 28	3	NE	3
3851-87-4	di(3,5,5-trimethylhexanoyl) peroxide	> 38 - 82	≥ 18				2	2	3
3851-87-4	di(3,5,5-trimethylhexanoyl) peroxide	≤ 52 as a stable dispersion in water					2	2	1
3851-87-4	di(3,5,5-trimethylhexanoyl) peroxide	≤ 38	≥ 62				2	NE	1
67567-23-1	ethyl 3,3-di(tert-amylperoxy)butyrate	≤ 67	≥ 33				NE	2	3
55794-20-2	ethyl 3,3-di(tert-butylperoxy)butyrate	> 77 - 100					1	1	3
55794-20-2	ethyl 3,3-di(tert-butylperoxy)butyrate	≤ 77	≥ 23				1	2	3
55794-20-2	ethyl 3,3-di(tert-butylperoxy)butyrate	≤ 52				≥ 48	1	NE	3
228415-62-1	1-(2-ethylhexanoylperoxy)-1,3-dimethyl-butyl peroxy-pivalate	≤ 52	≥ 45	≥ 10			2	NE	3
62178-88-5	tert-hexyl peroxyneodecanoate	≤ 71	≥ 29				1	NE	3
51938-28-4	tert-hexyl peroxy-pivalate	≤ 72		≥ 28			NE	NE	3
78350-78-4 + 199	isopropyl sec-butyl peroxydicarbonate + di-sec-butyl peroxydicarbonate + di-isopropyl peroxydicarbonate	32 + ≤ 15 - 18 + ≤ 12 - 15	≥ 38				2	NE	3
78350-78-4 + 199	isopropyl sec-butyl peroxydicarbonate + di-sec-butyl peroxydicarbonate + di-isopropyl peroxydicarbonate	≤ 52 + ≤ 28 + ≤ 22					2	4	4
26762-93-6	isopropylcumyl hydroperoxide	≤ 72	≥ 28				3	2	1
26762-92-5	p-menthyl hydroperoxide	> 72 - 100					3	2	3
26762-92-5	p-menthyl hydroperoxide	≤ 72	≥ 28				3	2	1
	methylcyclohexanone peroxide(s)	≤ 67		≥ 33			NE	NE	3
1338-23-4	methyl ethyl ketone peroxide(s)	see remark 8	≥ 48				3	NE	4
1338-23-4	methyl ethyl ketone peroxide(s)	see remark 9	≥ 55				3	2	3
1338-23-4	methyl ethyl ketone peroxide(s)	see remark 10	≥ 60				3	2	2
1338-23-4 & 12262-58-7	methyl ethyl ketone peroxide(s) & cyclohexanone peroxides & mixed peroxides	see remark 10	≥ 60				3	2	2
	methyl isobutyl ketone peroxide(s)	≤ 62	≥ 19				NE	2	3
	peroxyacetic acid, type d, stabilized	≤ 43					NE	NE	3
	peroxyacetic acid, type e, stabilized	≤ 43					NE	NE	2
	peroxyacetic acid, type f, stabilized	≤ 43					NE	NE	1
	peroxylauric acid	≤ 100					NE	NE	2
	pinanyl hydroperoxide	> 56 - 100					NE	NE	3
	pinanyl hydroperoxide	≤ 56	≥ 44				NE	NE	1
Proprietary	polyether poly-tert-butylperoxycarbonate	≤ 52		≥ 23			NE	4	2
5809-08-5	1,1,3,3-tetramethylbutyl hydroperoxide	≤ 100					3	2	3
22288-43-3	1,1,3,3-tetramethylbutyl peroxy-2-ethylhexanoate	≤ 100					NE	3	3
51240-95-0	1,1,3,3-tetramethylbutyl peroxyneodecanoate	≤ 72		≥ 28			1	3	3
51240-95-0	1,1,3,3-tetramethylbutyl peroxyneodecanoate	≤ 52 as a stable dispersion in water					1	3	1
22288-41-1	1,1,3,3-tetramethylbutyl peroxy-pivalate	≤ 77	≥ 23				2	4	3
24748-23-0	3,6,9-triethyl-3,6,9-trimethyl-1,4,7-triperoxonane	≤ 42	≥ 58				2	2	3
Remark 8)	Available oxygen > 10% and ≤ 10.5%, with or without water								
Remark 9)	Available oxygen ≤ 10%, with or without water								
Remark 10)	Available oxygen ≤ 8.2%, with or without water								



Criteria for organic peroxide HMIS ratings

Health ratings provided by OPPSD toxicology committee

Flammability Hazard Rating					
Flash Point	<23°C	23°C<38°C	38°C<93°C	>93°C	not burn?
	4	3	2	1	0
Tc (from SADT)	<-10°C	-10°C<0°C	0°C<25°C	25°C<45°C	No Tc
	4	3	2	1	0
Rating to be assigned based on most hazardous class from above tests					
The flash points are similar to old HMIS					
The Tc (from SADT) ranges are from UN TDG MTC Table 28.2 Derivation of Control and Emergency Temperatures					

Physical Hazard	
OP Type	HMIS PH
B	4
C	3
D	3
E	2
F	1
G	0

NE = Not Established (insufficient data)