

13
TABLE 2

Stability of Solid MMB4-DMS At 40° C.	
Time (Months)	4-Pyridine-aldoxime (% by wt.)
0	<0.04
1	<0.04
2	<0.04
3	<0.04
4	<0.04
6	<0.04
9	<0.04
12	<0.04

Representative 4-PA values for MMB4-DMS formulations herein, where the level of solubility of the MMB4-DMS is at or below 10.0% weight, and projected out to 52 weeks, are next shown in the following Table 3. The various compositions are compared at room temperature, 40° C., and 50° C.

TABLE 3

52 Week Projected % 4-PA Values			
Sample	RT	40 C.	50 C.
Soybean oil-800 mg/ml-milled	0.12	0.17	0.44
PEG400-800 mg/ml-milled	0.34	0.52	0.84
PEG400-40 mg/ml-homogenized	0.21	—	0.93
PEG400-400 mg/ml-wet milled	0.4	1.15	1.85
Cottonseed oil-400 mg/ml-wet milled	0.011	0.048	0.048
Perfluorodecalin-400 mg/ml-wet milled	0.018	0.042	0.046
Ethanol-200 mg/ml-milled	0.038	0.58	1.29

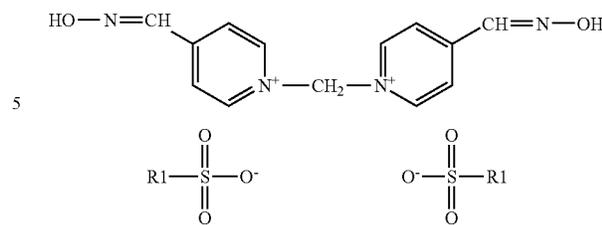
The actual stability data time points covered 4 weeks (30 days). The data was then projected using a linear excel line-fix application. Samples of particulate MMB4 DMS in the above referenced liquids also demonstrated injectability through 25-gauge needles (solid-concentration dependent) and excellent stability profile at 40 and 50° C. for a month.

What is claimed is:

1. A composition comprising:

a bis-quaternary pyridinium-2-aldoxime salt comprising the formula:

14



wherein R1 is independently a methyl or ethyl group wherein said salt is in particle form at a diameter of 1.0 micron to 100 microns wherein said salt indicates:

a) a plurality of distinguishing x-ray diffraction peaks at 2 Theta angles of 10-30 degrees as compared to non-distinguishing peaks at 2 Theta angles greater than 30 degrees, wherein said distinguishing x-ray diffraction peaks have relative intensity counts between 500-1500 at 2 Theta angles of 10-30 degrees and non-distinguishing x-ray diffraction peaks have relative intensity counts of less than 500 at 2 Theta angles of greater than 30 degrees and no peaks are present with relative intensity accounts of more than 250 at 2 Theta angles between 30-60 degrees and wherein said salt has a particulate structure comprising cubic rectangular geometry, or

(b) a plurality of distinguishing x-ray diffraction peaks at 2 Theta angles of 10-30 degrees as compared to non-distinguishing peaks at 2 Theta angles greater than 30 degrees, wherein said distinguishing x-ray diffraction peaks have relative intensity counts between 1000-4500 at 2 Theta angles of 10-30 degrees and non-distinguishing x-ray diffraction peaks have relative intensity counts of less than 500 at 2 Theta angles of greater than 30 degrees and no peaks are present with relative intensity accounts of more than 500 at 2 Theta angles between 35-60 degrees and wherein said salt has a particulate structure comprising a hexagonal structure; and

a liquid with which said salt is combined wherein the solubility of said particle in said liquid is less than or equal to 10% by weight, a two-phase (solid-liquid) system is provided, and said liquid is a fluorinated hydrocarbon.

2. The composition of claim 1 wherein said salt is present in said liquid at a level of 0.01% by weight to 80% by weight.

3. The composition of claim 1 wherein said solubility of said particle in said liquid is 0.01% by weight to 1.00% by weight.

4. The composition of claim 1 wherein said solubility of said particle in said liquid is 0.00% by weight to 0.05% by weight.

5. The bis-quaternary pyridinium-2-aldoxime salt of claim 1, wherein R1 is a methyl group.

* * * * *