Claims

1. A biodegradable lubricating oil composition biodegradable in a river or ocean comprising:

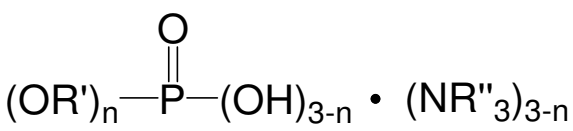
100 mass parts of (A) an ester compound described below;

0.05 to 1.5 mass parts of (B) an amine salt of an acidic phosphoric ester described below; and

0.01 to 0.50 mass parts of (C) a monoesterified compound described below, wherein:

(A) said ester compound of trimethylolpropane, a straight-chain saturated fatty acid having a carbon number of 8 to 10 and adipic acid, said ester compound satisfying the relationship of $TMP_{mol\%}$: $FA_{mol\%}$: $AD_{mol\%}$ of 20 to 40 % : 40 to 70 % : 5 to 25 %, respectively, provided that $TMP_{mol\%}$ represents a molar percentage of a component derived from trimethylolpropane, $FA_{mol\%}$ represents a molar percentage of a component derived from said straight-chain saturated fatty acid having a carbon number of 8 to 10, and $AD_{mol\%}$ represents a molar percentage of adipic acid;

(B) said amine salt of said acidic phosphoric ester represented by the following formula (1):



$$(OR')_n—\overset{\overset{O}{\|}}{P}—(OH)_{3-n} \cdot (NR''_3)_{3-n} \quad \cdots\cdots(1)$$

wherein n represents an integer of 1 or 2,

R' represents an alkyl group having a carbon number of 4 to 6, and

R" represents a hydrogen atom or an alkyl group having a carbon number of 11 to 14; and

(C) said monoesterified compound of an alkane diol having a carbon number of 3 to 8 and of succinic acid having an alkyl group having a carbon number of 8 to 18 or an alkenyl group having a carbon number of 8 to 18.

2. The biodegradable lubricating oil composition according to claim 1, which is used in an environment susceptible to leakage into a river or ocean.

3. The biodegradable lubricating oil composition according to claim 1, which is a rust prevention lubricant oil composition with rust-prevention property against sea water.

4. The biodegradable lubricating oil composition according to claim 2, which is a rust prevention lubricant oil composition with rust-prevention property against sea water.

5. A 2-cycle engine oil composition in an outboard motor for use in a lake region, said engine oil composition comprising the biodegradable lubricating oil composition according to claim 1.

6. A 2-cycle engine oil composition in an outboard motor for use in a lake region, said engine oil composition comprising the biodegradable lubricating oil composition according to claim 2.

7. A hydraulic oil composition for a construction machinery near a river, said hydraulic oil composition comprising the biodegradable lubricating oil composition according to claim 1.

8. A hydraulic oil composition for a construction machinery near a river, said hydraulic oil composition comprising the biodegradable lubricating oil composition according to claim 2.

9. A lubricant oil composition in a wetted part of a ship, said lubricant oil composition comprising the biodegradable lubricating oil composition according to claim 1.

10. A lubricant oil composition in a wetted part of a ship, said lubricant oil composition comprising the biodegradable lubricating oil composition according to claim 2.

11. A stern bearing oil for a ship, said stern bearing oil comprising the biodegradable lubricating oil composition according to claim 1.

12. (new): A stern bearing oil for a ship, said stern bearing oil comprising the biodegradable lubricating oil composition according to claim 2.