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Oxime Sulfonate

A further embodiment of the invention is an oxime sulfonate compound having the general formula (3b).

$$ROC(=0)-R^{1}-COOCH_{2}CF_{2}SO_{3}-N$$

$$= WG$$

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Herein RO is hydroxyl or a substituted or unsubstituted, straight, branched or cyclic C_1 - C_{20} organoxy group; R^1 is a divalent C_1 - C_{20} aliphatic group which may contain a substituent group having a heteroatom such as oxygen, nitrogen or sulfur, or may form a mono- or polycyclic structure with RO; q is 0 (zero) or 1; when q is 0, p is a substituted or unsubstituted C_1 - C_{20} alkyl group or a substituted or unsubstituted C_6 - C_{15} arylene group; EWG is a cyano, trifluoromethyl, perfluoroethyl, perfluoropropyl, 5H-perfluoropentyl, 6H-perfluorohexyl, nitro or methyl group, and when q is 1, two EWG's may bond together to form a ring of 6 carbon atoms with the carbon atoms to which they are attached.

In formula (3b), RO and R¹ are as defined above. When q is equal to 0, p is a substituted or unsubstituted C_1 - C_{20} alkyl group or a substituted or unsubstituted C_6 - C_{15} aryl group. When q is equal to 1, p is a single bond, a substituted or unsubstituted C_1 - C_{20} alkylene group or a substituted or unsubstituted C_6 - C_{15} arylene group. EWG is a cyano, trifluoromethyl, perfluoroethyl, perfluoropropyl, 5H-perfluoropentyl, 6H-perfluorohexyl, nitro or methyl group. When q is equal to 1, two EWG's may bond together to form a ring of 6 carbon atoms with the carbon atoms to which they are attached. The skeletons of the oxime sulfonates are described in U.S. Pat. No. 6,261,738, JP-A 9-95479, JP-A 9-208554, JP-A 9-230588, JP 2,906,999, JP-A 9-301948, JP-A 2000-314956, JP-A 2001-233842, and WO 2004/074242.

Exemplary skeletons of oxime sulfonates excluding the sulfonate moiety are given below wherein the broken line denotes a bonding site to the sulfonate moiety.