

## Title (en)

Masking mineral oil smell and scenting of mineral oils

## Title (de)

Maskierung von Mineralölgeruch und Beduftung von Mineralölen

## Title (fr)

Masquage d'odeurs d'huiles minérales et embaumement d'huiles minérales

## Publication

**EP 1884555 A2 20080206 (DE)**

## Application

**EP 07113304 A 20070727**

## Priority

US 83456106 P 20060801

## Abstract (en)

Mineral oil (A) contains 0.5-1.2 ppm of odorant(s) selected from 156 specific compounds (mainly esters, aldehydes, ketones, alcohols, nitriles or heterocyclic compounds) such as 2,4,6-trimethyl-1,3,5-trioxan (Ia), 2,4,6-trimethyl-4-phenyl-1,3-dioxan (Ia), 1-octanol, (2E,6Z)-2,6-nonadienal, 3-methyl-2-butenyl acetate or hexanal. Mineral oil (A) contains 0.5-1.2 ppm of odorant(s) (I) selected from: 2,4,6-trimethyl-4-phenyl-1,3-dioxan; ethyl 2-methyl-1,3-dioxolan-2-acetate; 4-propyl-(Z)-2,4-dimethyl-1,3-oxathian; 1,1-dimethoxy-1-nonene; 1-octanol; 5-hexyl-dihydro-2(3H)-furanone; 3-(4-ethylphenyl)-2,2-dimethylpropanal; (E,E)-2,4-decadienal; (2E,6Z)-2,6-nonadienal; 3,7-dimethyl-(2E)-2,6-octadienyl formate; 3-methyl-2-butenyl acetate; 1-(2,6,6-trimethyl-3-cyclohexenyl)-(E)-2-butenone; 2(E)-decenal; 2-butyl-3,6-dihydro-4,6-dimethyl-2H-pyran; 1,2,3,4,4a,5,6,7-octahydro-2,6,6-trimethyl-2-naphthol; 2(E)-nonenenitrile; (E)-2-tridecenal; (E)-2-tridecenenitrile; 3,7-dimethyl-(2Z)-3,6-nonadienenitrile; 3-methyl-4-(2,6,6-trimethyl-2-cyclohexenyl)-3-buten-2-one; 4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-3-buten-2-one; 2,4,6-trimethyl-3-cyclohexene-1-carboxaldehyde; 2,4-dimethyl-(Z)-3-cyclohexene-1-carboxaldehyde; (Z)- or (E)-3-hexenol; 3,7-dimethyl-3-octanol; (Z)-4-decenal; octahydro-2,2,5,8,8,9a-hexamethyl-9-4H-4a,9-methanoazuleno[5,6-d]-1,3-dioxole; 2,6,10-trimethyl-undecenal; (E)- or (Z)-9-undecenal; 4-(1-methylethyl)-benzaldehyde; 1,3,3- or 1,7,7-trimethyl-bicyclo(2,2,1)heptanol; 2,6,6-trimethyl-bicyclo(3,1,1)hept-2-ene; cyclohexyl butyrate; ethyl butyrate; ethyl 2-methylbutyrate; 6-(1-methylpropyl)-quinoline; 5-methyl-2-(1-methylethyl)-(iso)cyclohexanone; decanal; 2-methyl-dodecanal; 2-propenyl cyclohexyloxyacetate; 2-propenyl 2-(3-methylbutoxy)-acetate; ethanethoic acid S-[1-[2-(acetoxymethyl)butyl] ester; ethyl heptanoate; hexanal; 3,5,5-trimethylhexanal; nonanal; octanal; 2-methoxy-4-(2-propenyl)-phenol; phenylacetaldehyde; alpha-methyl-phenylacetaldehyde; 2-ethoxy-1-(1-methylethyl)-pyrazine; 2-(3-phenylpropyl)-pyridine; 4-(4,8-dimethyl-3,7-nonadienyl)-pyridine; undecanal; 2-methyl-undecanal; 2,4,6-trimethyl-1,3,5-trioxan (Ia); 3-methylbutyl acetate; 4-hydroxy-2,5-dimethyl-2(3H)-furanone; dihydro-5-pentyl-2(3H)-furanone; 3,7-dimethyl-(2E)-2,6-octadienol; 3,7-dimethyl-(2E)-2,6-octadienal; 1-(2,6,6-trimethyl-1-cyclohexenyl)-(E)-2-butenone; 3,7-dimethyl-6-octenol; 3,7-dimethyl-6-octenal; 3,7-dimethyl-6-octenenitrile; 3,7-dimethyl-acetaldehyde; ((3,7-dimethyl-6-octenyl)oxy)-4-methylbenzaldehyde; (2,2-dimethoxyethyl)-benzene; cyclohexyl acetate; 5-methyl-2-(1-methylethyl)-(L) or (iso)-cyclohexanone; 2-propenyl cyclohexanepropionate; decanal; 2-propenyl phenoxyacetate; 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)-ethanone; 1-(2-pyrazinyl)-ethanone; 1-(4-methylphenyl)-ethanone; heptanal; 1-methylpropyl 3-methylthiobutyrate; 7-methyl-2H-1,5-benzodioxepin-3(4H)-one; 3,7-dimethyl-(2Z) or (2E)-2,6-octadienenitrile; 2,6-dimethyl-5-heptenal; 5-butyl-tetrahydro-2(3H)-furanone; ethyl 3-methylbutyrate; 3,7-dimethyl-1,6-octadien-3-ol; ethyl 2-methylpentanoate; ethyl 3-phenyl-(E)-2-propenoate; methyl 7-isopropyl-1,4a-dimethyl-1,2,3,4,4a,9,10,10a-octahydro-phenanthrene-1-carboxylate; alpha-methyl-1,3-benzodioxolan-5-propanal; ethyl 2-methyl-1,3-dioxolan-2-acetate; 10-undecenal; 1-decanol; 3a,4,5,6,7,7a-hexahydro-1H-4,7-methanoinden-5-yl propionate; 3,5,5-trimethylhexanol; 1-octen-3-yl acetate; 2,6-octadienyl acetate; 5-heptyl-dihydro-2(3H)-furanone; 3,7-dimethyl-(2E) or (2Z)-2,6-octadienyl acetate; 4-(2,6,6-trimethyl-1-cyclohexenyl)-2-butanone; 3-methyl-2-(2-pentenyl)-(Z)-2-cyclopenten-1-one; 7-methyl-2H-1-benzopyran-2-one; 2,6-dimethyl-2-heptanol; 2,6-dimethyl-2-octanol; 2-octanone; 2-methyl-2-pentenoic acid; 2-phenylethanol; 3-phenyl-(E)-2-propenol; 2-methyl-3-phenyl-(E)-2-propenal; 3-phenyl-(E)-2-propenal; benzyl 3-phenyl-2-propenoate; 1-(2,4,4-trimethyl-2-cyclohexenyl)-(2E)-3-buten-2-one; 4-(2,6,6-trimethyl-1-cyclohexenyl)-buten-2-one; 3-(4-methyl-3-pentenyl)-3-cyclohexene-1-carboxaldehyde; 4-(4-hydroxy-4-methylpentyl)-3-cyclohexene-1-carboxaldehyde; alpha,alpha-4-trimethyl-3-cyclohexene-1-methyl acetate; 2,6-dimethyl-2-octanol; octahydro-4,7-methano-1H-indene-2,5-dimethanol; 2,6,10-trimethyl-5,9-undecadienal; 2,4,4,7-tetramethyl-6-octen-3-one; 2,6-dimethyl-7-octen-2-ol; 2-methylpropyl 2-hydroxybenzoate; 3-methylbutyl benzoate; ethyl benzoate; methyl 2-(methylamino)-benzoate; n-pentyl 2-hydroxybenzoate; n-propyl benzoate; 1-(1,1-dimethylethyl)-3,5-dimethyl-2,4,6-trinitrobenzene; diphenylmethane; 1,4-dimethoxybenzene; 2,2-dimethyl-3-methylene-bicyclo(2,2,1)heptane; 2-phenylethyl 3-methylbutyrate; 3-methylbutyl 3-methylbutyrate; butyl butyrate; ethyl 3-oxobutyrate; cyclohexyl acetate; cyclohexylethyl acetate; 5-methyl-2-(1-methylethyl)-cyclohexanol; 5-methyl-2-(1-methylethyl)-cyclohexanol acetate; 1-methyl-4-(1-methylethylidene)-cyclohexene; methyl 3-oxo-2-pentyl-(E)-cyclopentaneacetate; 2-phenylethyl acetate; 1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)-ethanone; 1-(2-naphthyl)-ethanone; 4,4a,5,9b-tetrahydro-indeno(1,2-d)-1,3-dioxin; 4,4a,5,9b-tetrahydro-2,4-dimethyl-indeno(1,2-d)-1,3-dioxin; benzophenone; ethyl octanoate; alpha-cyclohexylidene-phenylacetone; 2-methylpropyl phenylacetate; alpha-methylbenzyl acetate; diethyl propanedioate; 2-phenoxyethyl 2-methylpropionate; and hexyl 2-methylpropionate. An independent claim is included for an odorizing additive for mineral oils, in which at least 55 wt. % of the odorant components consist of (I).

## Abstract (de)

Die Erfindung betrifft das Gebiet des Maskierens von Mineralölgeruch und das Beduften von Mineralölen. In diesem Zusammenhang betrifft die Erfindung eine Auswahl an besonders geeigneten Riechstoffen zum Maskieren eines Mineralölgeruchs und zum Beduften von Mineralölen. Ferner betrifft die Erfindung Additive sowie entsprechende beduftete Mineralöle selbst, insbesondere Kraftstoffe und Heiz- oder Schmieröle.

## IPC 8 full level

**C10L 1/16** (2006.01); **C10L 1/182** (2006.01); **C10L 1/185** (2006.01); **C10L 1/188** (2006.01); **C10L 1/19** (2006.01); **C10L 1/22** (2006.01); **C10L 1/223** (2006.01); **C10L 1/228** (2006.01); **C10L 1/23** (2006.01); **C10L 1/232** (2006.01); **C10L 1/24** (2006.01); **C10L 10/00** (2006.01); **C10M 127/02** (2006.01); **C10M 127/04** (2006.01); **C10M 129/06** (2006.01); **C10M 129/16** (2006.01); **C10M 129/20** (2006.01); **C10M 129/24** (2006.01); **C10M 129/32** (2006.01); **C10M 129/70** (2006.01); **C10M 129/72** (2006.01); **C10M 129/76** (2006.01); **C10M 133/12** (2006.01); **C10M 133/24** (2006.01); **C10M 133/32** (2006.01); **C10M 133/40** (2006.01); **C10M 135/12** (2006.01); **C10M 135/36** (2006.01)

## CPC (source: EP US)

**C10L 1/14** (2013.01 - EP US); **C10L 1/1608** (2013.01 - EP US); **C10L 1/18** (2013.01 - EP US); **C10L 1/1824** (2013.01 - EP US); **C10L 1/1855** (2013.01 - EP US); **C10L 1/1857** (2013.01 - EP US); **C10L 1/1881** (2013.01 - EP US); **C10L 1/19** (2013.01 - EP US); **C10L 1/1905** (2013.01 - EP US); **C10L 1/223** (2013.01 - EP US); **C10L 1/2286** (2013.01 - EP US); **C10L 1/231** (2013.01 - EP US); **C10L 1/232** (2013.01 - EP US); **C10L 1/2425** (2013.01 - EP US); **C10L 1/2456** (2013.01 - EP US); **C10L 10/00** (2013.01 - EP US); **C10M 127/02** (2013.01 - EP US); **C10M 127/04** (2013.01 - EP US); **C10M 129/06** (2013.01 - EP US); **C10M 129/16** (2013.01 - EP US); **C10M 129/20** (2013.01 - EP US); **C10M 129/24** (2013.01 - EP US); **C10M 129/32** (2013.01 - EP US); **C10M 129/70** (2013.01 - EP US); **C10M 129/72** (2013.01 - EP US); **C10M 129/76** (2013.01 - EP US); **C10M 133/12** (2013.01 - EP US); **C10M 133/24** (2013.01 - EP US); **C10M 133/32** (2013.01 - EP US); **C10M 133/40** (2013.01 - EP US); **C10M 135/12** (2013.01 - EP US); **C10M 135/36** (2013.01 - EP US); **C10L 1/1852** (2013.01 - EP US); **C10M 2203/04** (2013.01 - EP US); **C10M 2203/06** (2013.01 - EP US); **C10M 2207/021** (2013.01 - EP US);

C10M 2207/04 (2013.01 - EP US); C10M 2207/044 (2013.01 - EP US); C10M 2207/08 (2013.01 - EP US); C10M 2207/122 (2013.01 - EP US); C10M 2207/128 (2013.01 - EP US); C10M 2207/281 (2013.01 - EP US); C10M 2207/282 (2013.01 - EP US); C10M 2207/284 (2013.01 - EP US); C10M 2207/289 (2013.01 - EP US); C10M 2215/06 (2013.01 - EP US); C10M 2215/16 (2013.01 - EP US); C10M 2215/221 (2013.01 - EP US); C10M 2219/06 (2013.01 - EP US); C10M 2219/104 (2013.01 - EP US); C10N 2030/34 (2020.05 - EP US)

Cited by

EP2119925A1; CN108587709A; US9125828B2; WO2012080235A1; WO2013077738A1; EP4183462A1; WO2023094285A1; EP3922707A1; DE102020115468A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

**EP 1884555 A2 20080206**; US 2008032913 A1 20080207

DOCDB simple family (application)

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