

Search query (2): [SP]: 1. a non-aqueous

Results: 14

Search PN=(WO2015153652) (Results 1)

Search [SP]: 1. a non-aqueous heat transfer fluid or engine coolant for internal combustion engines comprising ethylene glycol (eg) and a glycol selected from the group consisting of 1,3 propanediol (pdo), diethylene glycol (deg) and combinations thereof. 2. the non-aqueous heat transfer fluid of claim 1, wherein the ratio of the mass of the pdo to the total mass of eg and pdo is between about 0.05 and about 0.50. 3. the non-aqueous heat transfer fluid of claim 2, further comprising at least one corrosion inhibiting additive selected from the group consisting of a nitrate, a molybdate, an azole, an organic acid corrosion inhibitor, and a hydroxide. 4. the non-aqueous heat transfer fluid of claim 3, wherein the nitrate is sodium nitrate in a concentration of between about 0.05 percent to about 3 percent, the molybdate is sodium molybdate in a concentration of between about 0.05 percent to about 3 percent the azole is tolyltriazole (tt), hydrogenated tolyltriazole (tht), butylbenzotriazole (bbt), or a mixture thereof, in a concentration of between about 0.05 percent to about 3 percent the organic acid corrosion inhibitor is 2-ethylhexanoic acid (2-eha) in a concentration of between about 0.1 percent to about 3 percent and the hydroxide is potassium hydroxide in a concentration of between about 0.1 percent to about 3 percent. 5. the non-aqueous heat transfer fluid of claim 1, wherein the ratio of the mass of the deg to the total mass of eg and deg is between about 0.05 and about 0.50. 6. the non-aqueous heat transfer fluid of claim 5, further comprising at least one corrosion inhibiting additive selected from the group consisting of a nitrate, a molybdate, an azole, an organic acid corrosion inhibitor, and a hydroxide. 7. the non-aqueous heat transfer fluid of claim 6, wherein the nitrate is sodium nitrate in a concentration of between about 0.05 percent to about 3 percent, the molybdate is sodium molybdate in a concentration of between about 0.05 percent to about 3 percent the azole is tolyltriazole (tt), hydrogenated tolyltriazole (tht), butylbenzotriazole (bbt), or a mixture thereof, in a concentration of between about 0.05 percent to about 3 percent the organic acid corrosion inhibitor is 2-ethylhexanoic acid (2-eha) in a concentration of between about 0.1 percent to about 3 percent and the hydroxide is potassium hydroxide in a concentration of between about 0.1 percent to about 3 percent. 8. the non-aqueous heat transfer fluid of claim 1, wherein the ratio of the mass of the pdo to the total mass of eg, pdo and deg is between about 0.025 and about 0.40, the ratio of the mass of the deg to the total mass of eg, pdo and deg is between about 0.025 and about 0.40, and the ratio of the total mass of pdo and deg to the total mass of eg, pdo and deg is between about 0.05 and about 0.50. 9. the non-aqueous heat transfer fluid of claim 8, further comprising at least one corrosion inhibiting additive selected from the group consisting of a nitrate, a molybdate, an azole, an organic acid corrosion inhibitor and a hydroxide. 10. the non-aqueous heat transfer fluid of claim 9, wherein the nitrate is sodium nitrate in a concentration of between about 0.05 percent to about 3 percent, the molybdate is sodium molybdate in a concentration of between about 0.05 percent to about 3 percent the azole is tolyltriazole (tt), hydrogenated tolyltriazole (tht), butylbenzotriazole (bbt), or a mixture thereof, in a concentration of between about 0.05 percent to about 3 percent the organic acid corrosion inhibitor is 2-ethylhexanoic acid (2-eha) in a concentration of between about 0.1 percent to about 3 percent and the hydroxide is potassium hydroxide in a concentration of between about 0.1 percent to about 3 percent. 11. a method for producing an eg-based non-aqueous heat transfer fluid or engine coolant for internal combustion engines, having a reduced low temperature operating limit as compared to pure ethylene glycol, comprising the step of combining eg with a glycol selected from the group consisting of pdo, deg and combinations thereof. 12. the method of claim 11, wherein the ratio of the mass of pdo to the total mass of eg and pdo in the resulting heat transfer fluid is between about 0.05 and about 0.50. 13. the method of claim 12, further comprising the step of adding at least one corrosion inhibitor selected from the group consisting of a nitrate, a molybdate, an azole, an organic acid corrosion inhibitor, and a hydroxide. 14. the method of claim 13, wherein the nitrate is sodium nitrate in a concentration of between about 0.05 percent to about 3 percent, the molybdate is sodium molybdate in a concentration of between about 0.05 percent to about 3 percent the azole is tolyltriazole (tt), hydrogenated tolyltriazole (tht), butylbenzotriazole (bbt), or a mixture thereof, in a concentration of between about 0.05 percent to about 3 percent the organic acid corrosion inhibitor is 2-ethylhexanoic acid (2-eha) in a concentration of between about 0.1 percent to about 3 percent and the hydroxide is potassium hydroxide in a concentration of between about 0.1 percent to about 3 percent. 15. the method of claim 11, wherein the ratio of the mass of deg to the total mass of eg and deg in the resulting heat transfer fluid is between about 0.10 and about 0.50. 16. the method of claim 15, further comprising the step of adding at least one corrosion inhibitor selected from the group consisting of a nitrate, a molybdate, an azole, an organic acid corrosion inhibitor, and a hydroxide. 17. the method of claim 16, wherein the nitrate is sodium nitrate in a concentration of

between about 0.05 percent to about 3 percent, the molybdate is sodium molybdate in a concentration of between about 0.05 percent to about 3 percent the azole is tolyltriazole (tt), hydrogenated tolyltriazole (tht), butylbenzotriazole (bbt), or a mixture thereof, in a concentration of between about 0.05 percent to about 3 percent the organic acid corrosion inhibitor is 2-ethylhexanoic acid (2-eha) in a concentration of between about 0.1 percent to about 3 percent and the hydroxide is potassium hydroxide in a concentration of between about 0.1 percent to about 3 percent. 18. the method for producing a non-aqueous heat transfer fluid of claim 11, wherein the ratio of the mass of pdo to the total mass of eg, pdo and deg is between about 0.025 and about 0.40, the ratio of the mass of deg to the total mass of eg, pdo and deg is between about 0.025 and about 0.40, and the ratio of the total mass of pdo and deg to the total mass of eg, pdo and deg is between about 0.05 and about 0.50. 19. the method of claim 18, further comprising the step of adding at least one corrosion inhibitor selected from the group consisting of a nitrate, a molybdate, an azole, an organic acid corrosion inhibitor, and a hydroxide. 20. the method of claim 19, wherein the nitrate is sodium nitrate in a concentration of between about 0.05 percent to about 3 percent, the molybdate is sodium molybdate in a concentration of between about 0.05 percent to about 3 percent the azole is tolyltriazole (tt), hydrogenated tolyltriazole (tht), butylbenzotriazole (bbt), or a mixture thereof, in a concentration of between about 0.05 percent to about 3 percent the organic acid corrosion inhibitor is 2-ethylhexanoic acid (2-eha) in a concentration of between about 0.1 percent to about 3 percent and the hydroxide is potassium hydroxide in a concentration of between about 0.1 percent to about 3 percent. (Results 14)

Title: NON-AQUEOUS HEAT TRANSFER FLUID WITH REDUCED LOW TEMPERATURE VISCOSITY

Abstract: Non-aqueous heat transfer fluids or engine coolants for internal combustion engines comprised primarily of ethylene glycol, a glycol that exhibits supercooling. The fluids are further comprised of 1,3 propanediol and/or diethylene glycol which also exhibit supercooling. The combinations expand the Low Temperature Operating Limit of the ethylene glycol, while avoiding the extent of the viscosity increase imposed by the use of 1,2 propanediol for the same purpose.

Classifications:

International (IPC 8-9): C09K5/00 C09K5/10 C23F11/08 C23F11/12 C23F11/14 C23F11/18 H01M10/60 (Advanced/Invention)

CPC: C09K5/10 C23F11/08

US: 252/73 252/74 252/75 252/76

PatBase - US2015284617_AA

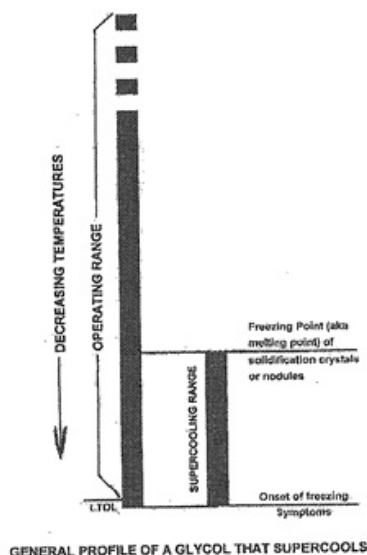


FIGURE 1

Family:

Publication number	Publication date	Application number	Application date
AU2015240897 AA	20151008	AU20150240897	20150331
CA2944643 AA	20160930	CA20152944643	20150331
CN106165190 A	20161123	CN201580018572	20150331
CO20160003721 A2	20170113	CO20160003721	20161101
EP3130030 A1	20170215	EP20150772360	20150331
EP3130030 A4	20171206	EP20150772360	20150331
IN201617037112 A	20170331	IN201617037112	20161028
JP2017511411 T2	20170420	JP20160560551T	20150331
KR20170009844 A	20170125	KR20167030695	20150331
MX2016012925 A1	20170714	MX20160012925	20150331
RU2016142825 A	20180510	RU20160142825	20150331
US2015284617 AA	20151008	US20150675076	20150331
WO15153652 A1	20151008	WO2015US23654	20150331

Priority:

US20140973971P 20140402 US20150675076 20150331 WO2015US23654 20150331

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Inventor(s): THOMAS LIGHT J ; LIGHT J

Agent(s): GRIFFITH HACK; RIDOUT AND MAYBEE LLP; CAROLINA MERCEDES DAZA MONTALVO; PATENTANWALTE BAUER VORBERG KAYSER; YKI PATENT ATTORNEYS; YKI INTELLECTUAL PROPERTY ATTORNEYS; GRONDAHL ERIC E ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: Aircraft deicing fluid with improved anti-icing and ice adhesion control properties

Abstract: A glycol-based deicer composition having ice adhesion repression properties is provided. Ice adhesion control derives from the presence of a film of the composition which is retained on the deiced surfaces and interferes with adhesion of new ice. The composition includes one or more anionic or nonionic surfactants selected to provide a spreading wetting value of 0 to about -5 degrees per centimeter.

Classifications:

International (IPC 8-9): C09K3/18 (Advanced/Invention);
C09K3/18 (Core/Invention)

International (IPC 1-7): B64D15/00 C04B9/02 C09K3/18

CPC: C09K3/185

European: C09K3/18B

US: 106/13 106/14.05 106/14.12 106/14.13 252/70

Family:

Publication number	Publication date	Application number	Application date
AT178643 E	19990415	AT19930921347T	19930903
AU199348471 A1	19940329	AU19930048471	19930903
CN1034951 C	19970521	CN19931017220	19930908
CN1065194 C	20010502	CN19961008288	19960629
CN1085238 A	19940413	CN19931017220	19930908
CN1144763 A	19970312	CN19961008288	19960629
DE69324370 D1	19990512	DE19936024370	19930903
DE69324370 T2	19990826	DE19936024370T	19930903
DK0659203 T3	19991018	DK19930921347T	19930903
EP0659203 A1	19950628	EP19930921347	19930903
EP0659203 B1	19990407	EP19930921347	19930903
ES2131588 T3	19990801	ES19930921347T	19930903
US5968407 A	19991019	US19920942400	19920909
WO9405741 A1	19940317	WO1993US08336	19930903

Priority:

US19920942400 19920909 WO1993US08336 19930903

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Designated states: AT AU BB BE BF BJ BR CA CF CG CH CI CM CZ DE DK ES FI FR GA GB GN GR HU IE IT JP KR LI LK LU MC MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SN TD TG

Title: Extended engine coolant lifetime through polymeric polycarboxylate secondary silicate stabilization

Abstract: The present invention provides corrosion inhibition formulations and compositions for inhibiting mineral scale and the corrosion of metals particularly the cavitation corrosion of aluminum in the presence of aqueous liquids. The combination of a mixture of polymeric polycarboxylates, azoles, nitrate salts, phosphates, stabilized silicates and transition metal compounds provide a synergistic protective effect against the cavitation corrosion of aluminum in aqueous liquids reducing the corrosion rate and is effective at relatively low concentrations and varying pH ranges. The addition of selected polymeric polycarboxylates not only significantly reduces glycol based coolant cavitation erosion-corrosion, heat rejecting aluminum corrosion, and hard water precipitates and scale, it has been discovered that polymeric polycarboxylates in combination with siloxane stabilized silicates enhance secondary silicate stabilization leading to improvement in aluminum corrosion protection and coolant life when utilized with selected amounts of the above-identified additives. The formulations are particularly suitable for automotive applications.

Classifications:

International (IPC 8-9): C09K5/00 C09K5/10 C09K5/20 C23F11/08 C23F11/173 (Advanced/Invention);

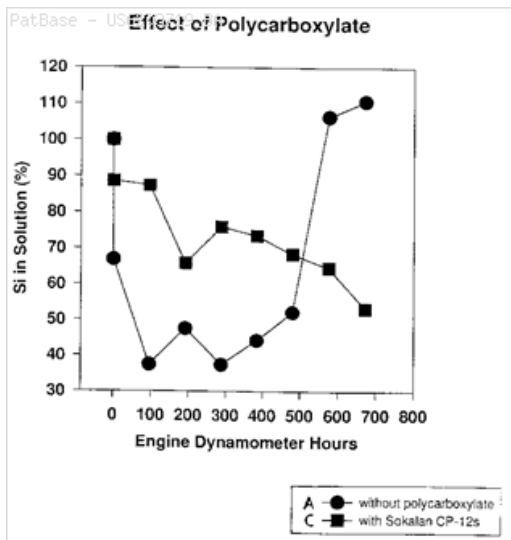
C09K5/00 C23F11/08 (Core/Invention)

International (IPC 1-7): C09K15/02 C09K15/06 C09K15/10 C09K15/16 C09K15/20 C09K15/26 C09K5/00 C23F11/173 C23F14/02 F01P3/00

CPC: C09K5/10 C09K5/20 C23F11/08

European: C09K5/10 C09K5/20 C23F11/08

US: 252/396 252/75 252/76 252/79



Family:

Publication number	Publication date	Application number	Application date
AR011522 AA	20000830	AR1998P100112	19980109
AU199850303 A1	19980716	AU19980050303	19980106
AU735758 B2	20010712	AU19980050303	19980106
BRPI9802889 A	19991005	BR1998PI02889	19980109
CA2226472 AA	19980710	CA19982226472	19980108
CA2226472 C	20040914	CA19982226472	19980108
IN00069MA1998 A	20050923	IN1998MA00069	19980109
US6203719 BA	20010320	US19970781848	19970110

Priority:

US19970781848 19970110 CA19982226472 19980108

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Inventor(s): DAVID E TURCOTTE ; FRANCES E LOCKWOOD

Agent(s): PHILLIPS ORMONDE FITZPATRICK; PERLEY ROBERTSON HILL AND MCDUGALL LLP

Title: Monocarboxylic acid based antifreeze composition for diesel engines

Abstract: The present invention relates to a carboxylic acid based antifreeze coolant formulation for heavy duty applications such as for diesel engines which may be used for inhibition and prevention erosion and corrosion of aluminum and the corrosion of other metals exposed to an aqueous liquid in automotive coolant systems. The formulation further inhibits mineral scale. It may be packaged as an ethylene glycol based additive for use in new engines or in a concentrated inhibition package as an additive as for reinhibition of used coolant. The combination of a mixture of ethylene or propylene glycol, a monobasic carboxylic organic acid, azoles, low levels of molybdates, a nitrite salt and/or nitrate salt and/or siloxane stabilized silicate, and combinations thereof, polyvinylpyrrolidone, provide a synergistic protective effect against the cavitation corrosion of aluminum in aqueous liquids reducing the corrosion rate and is effective at relatively low concentrations and varying pH ranges.

Classifications:

International (IPC 8-9): C02F5/10 C09K3/18 C09K5/00 C09K5/20 C23F11/00 C23F11/08 C23F11/18 (Advanced/Invention); C02F5/10 C09K5/00 C23F11/08 (Core/Invention)

International (IPC 1-7): C09K3/18 C09K5/00 C09K5/20 C09K7/50 C23F11/08

CPC: C09K5/20 C23F11/08 C02F5/10

European: C02F5/10 C09K5/20 C23F11/08

US: 252/71 252/71P 252/72 252/72S 252/73 252/73S 252/74 252/75 252/75S 252/76 252/77 252/79

PatBase - W09924524_A1



FIGURE 1

Family:

Publication number	Publication date	Application number	Application date
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AR024796 AA	20021023	AR2000P103712	20000719
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AT493481 E	20110115	AT20000913616T	20000225
AU199914536 A1	19990531	AU19990014536	19981105
AU199940943 A1	19991213	AU19990040943	19990521
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AU200035029 A5	20000914	AU20000035029D	20000225
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AU200123209 A5	20010823	AU20010023209D	20010223
AU2002256500 AA	20021118	AU20020256500	20020508
AU2002256500 BB	20080508	AU20020256500	20020508
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AU2003200642 BB	20061214	AU20030200642	20030224
AU743301 B2	20020124	AU19990040943	19990521
AU771582 B2	20040325	AU20010023209	20010223
AU772428 B2	20040429	AU20000035029	20000225
BRPI0010276 A	20020521	BR2000PI10276	20000225
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CA2308195 AA	20000502	CA19982308195	19981105
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EP1159372 A4	20050316	EP20000913616	20000225
EP1159372 B1	20101229	EP20000913616	20000225
EP1392790 A1	20040303	EP20020725970	20020508
EP1392790 A4	20080521	EP20020725970	20020508
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IN202351 B	20070202	IN2001CN01183	20010824
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US6126852 A	20001003	US19980135138	19980817
US6228283 BA	20010508	US19990422596	19991021
US6235217 BA	20010522	US20000510880	20000223
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WO9924524 A1	19990520	WO1998US23876	19981105
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WO9961545 A1	19991202	WO1999US11324	19990521

Priority:

US19970064596P	19971106	US19980083821	19980522	US19980135138	19980817
AU19990014536	19981105	WO1998US23876	19981105	US19990121904P	19990226
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US20040755713	20040112				

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Inventor(s):	D E TURCOTTE F E LOCKWOOD ; DE TURCOTTE FE LOCKWOOD ; D E TURCOTTE ; ARNOLD L COFFEY JR ALDEN W OLSEN ; F E LOCKWOOD ; TURCOTTE DAVID E DITURO MICHAEL A COFFEY JR ARNOLD L OLSEN ALDEN W STEPHENS CARL R ; STEPHENS CARLR ; OLSEN ALDEN W STEPHENS CARL R COFFEY JR ARNOLD L D ; JR ; LOCKWOOD ; COFFEYJR ARNOLD L ; D E TUROTTE ; ARNOLD L JR COFFEY ; ARNOLD L COFFEY ; A L COFFEY JR ; A W OLSEN ; COFFEY ARNOLD OLSEN ALDEN DITURO MICHAEL A STEPHENS CARL R TURCOTTE DAVID E
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Designated states:	AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Title: ANTIFREEZE CONCENTRATES AND COOLANT COMPOSITIONS BASED ON POLYGLYCOLS AND AMIDES FOR PROTECTING MAGNESIUM AND THE ALLOYS THEREOF

Abstract: An antifreeze concentrate based on alkylene glycols, glycerol and/or 1,3-propanediol comprises a) from 0.05 to 10, preferably from 0.5 to 5, percent by weight, based on the total amount of the concentrate, of one or more polyethylene glycols and/or polypropylene glycols and b) from 0.01 to 10, preferably from 0.05 to 10, percent by weight, based on the total amount of the concentrate, of one or more carboxamides and/or sulfonamides. Ready-to-use aqueous coolant compositions which contain from 30 to 70, in particular from 40 to 60, percent by weight of the concentrate are obtainable from the novel concentrates by dilution with water. Said compositions are distinguished by effective corrosion inhibition in the case of magnesium and magnesium alloys.

Classifications:

International (IPC 8-9): C09K3/18 C09K5/00 C09K5/20 C23F11/08 C23F11/10 C23F11/14 C23F11/16 (Advanced/Invention); C09K3/18 C09K5/00 C23F11/08 C23F11/10 (Core/Invention); C09K C23F (Subclass/Invention)

International (IPC 1-7): C09K5/00 C09K5/20 C23F11/08 C23F11/10

CPC: C09K5/20 C23F11/10 C23F11/145 C23F11/164

European: C09K5/20 C23F11/10 C23F11/14C C23F11/16F

US: 252/70 252/71 252/73 252/74 252/75 252/77

Family:

Publication number	Publication date	Application number	Application date
AT407988 E	20080915	AT20040722834T	20040324
AU2004224163 AA	20041007	AU20040224163	20040324
AU2004224163 BB	20091217	AU20040224163	20040324
BRPI0408712 A	20060307	BR2004PI08712	20040324
CA2520246 AA	20050923	CA20042520246	20040324
CA2520246 C	20130212	CA20042520246	20040324
CN100580049 C	20100113	CN200480011102	20040324
CN1780894 A	20060531	CN200480011102	20040324
DE10313280 A1	20041007	DE20031013280	20030325
DE502004008029 D1	20081023	DE200450008029T	20040324
EP1618167 A1	20060125	EP20040722834	20040324
EP1618167 B1	20080910	EP20040722834	20040324
ES2311149 T3	20090201	ES20040722834T	20040324
MXPA05010060 A1	20051123	MX2005PA10060	20040324
NO20054795 A	20051024	NO20050004795	20051018
PT1618167 T	20081001	PT20040722834T	20040324
US2007034825 AA	20070215	US20040550740	20040324
US7588695 BB	20090915	US20040550740	20040324
WO04085566 A1	20041007	WO2004EP03108	20040324
ZA200507692 A	20070328	ZA20050007692	20050923

Priority:

DE20031013280 20030325 WO2004EP03108 20040324

Probable Assignee: BASF SE

Assignee(s): (std): BASF AG ; BASF CORP ; BASF SE ; DAMBACH STEFAN ; WENDEROTH BERND ; WEISS GERHARD

Assignee(s): BASF WEISS GERHARD DAMBACH STEFAN WENDEROTH ; BASF AKTIENGESELLSCHAFT

Inventor(s): (std): GERHARD WEISS ; GERHARD WENDEROTH BERND DAMBACH ; WEIB GERHARD ; WEIBETA GERHARD ; WENDEROTH BERND ; WEISS GERHARD ; DAMBACH STEFAN ; WEISS GERHARD ; STEFAN DAMBACH ; BERND WENDEROTH

Inventor(s): WENDEROTH BERND DAMBACH STEFAN WEISS GERHARD ; WEI BETA GERHARD

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; BORDEN LADNER GERVAIS LLP; ISENBRUCK GUENTER; C IRVIN MCCLELLAND OBLON SPIVAK MCCLELLAND MAIER AND NEUSTADT PC; OBLON SPIVAK MCCLELLAND MAIER AND NEUSTADT PC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: HEAT TRANSFER FLUIDS CONTAINING DICARBOXYLIC ACID MIXTURES AS CORROSION INHIBITORS

Abstract: A coolant composition for use in automotive engines is disclosed which comprises a liquid alcohol freezing depressant and a corrosion inhibitor consisting essentially of decanedioic acid, dodecanedioic acid and sodium tolyltriazole.

Classifications:

International (IPC 8-9): C09K5/00 C09K5/08 C09K5/20 C23F11/10 C23F11/14 (Advanced/Invention);

C09K5/00 C23F11/10 (Core/Invention)

International (IPC 1-7): C09K5/00 C10M105/14 C10M129/34 C10M129/42 C10M133/44 C10N30/12 C10N40/22 C23F11/14

CPC: C09K5/20 C23F11/10

European: C09K5/20 C23F11/10

US: 252/394 252/396 252/73 252/75 252/76 252/77 252/79

Family:

Publication number	Publication date	Application number	Application date
BRPI8902445 A	19900821	BR1989PI02445	19890427
EP0369100 A1	19900523	EP19890107709	19890427
JP2182782 A2	19900717	JP19890104769	19890426
US4946616 A	19900807	US19880270718	19881114

Priority:

US19880270718 19881114

Probable Assignee: DOW CHEMICAL CO

Assignee(s): (std): DOW CHEMICAL CO

Assignee(s): DOW EUROPE A CORP OF SWITZERLAND SA ; DOW EUROPE SA ; THE DOW CHEMICAL CO ; THE DOW CHEMICAL COMPANY ; DOW CHEM CO ; DOW CHEM CO THE

Inventor(s): (std): DANIERU JIEI FUATSURA ; FALLA DANIEL J ; PEETAA HA BUREHITORUDO ; BERCHTOLD PETER H

Inventor(s): DANIEL J FALLA ; PETER H BERCHTOLD

Designated states: BE DE FR GB IT NL

Title: Corrosion-inhibited antifreeze formulation

Abstract: A corrosion-inhibited antifreeze concentrate formulation containing no phosphate, amine, or nitrite compounds consists essentially of: (a) a major amount of a water soluble liquid alcohol freezing point depressant; (b) from 0.1-5.0 weight percent of a C 6 -C 12 aliphatic monobasic acid or the alkali metal salt thereof; (c) from 0.1-5.0 weight percent of an alkali metal borate compound; and (d) from 0.1-5.0 weight percent of a hydrocarbyl triazole. The concentrate formulation and aqueous antifreeze formulations of the instant invention give synergistic corrosion protection for a variety of metal surfaces as compared with compositions containing only the aliphatic monobasic acid/salt or alkali metal borate component alone.

Classifications:

International (IPC 8-9): C09K3/00 C09K5/00 C09K5/20 C23F11/08 (Advanced/Invention)

International (IPC 1-7): C09K3/00 C09K3/18 C09K5/00

CPC: C09K5/20 C23F11/08

European: C09K5/20 C23F11/08

US: 252/396 252/75 252/76 252/79

PatBase - Jpnese 系 系 系 系 系 系 系 系 系 系										
腐食抑制性を測定するためのECP測定(E _a 及びE _p はmVで表わす)*										
実施例	アルミニウム		銅		ハンダ		鉛		鋼	
	E _a	E _p	E _a	E _p	E _a	E _p	E _a	E _p	E _a	E _p
	1	2	3	4	5	6	7	8	9	10
1	-400	-620	+1000	+110	-90	-320	+200	-200	-40	-250
2	+200	-520	+1800	+200	+1100	+900	+340	0	+640	+635
3	+1480	-80	+1800	+3000	+1280	+1180	+1030	+980	+640	+660
4	+140	-630	+1800	+3000	+1160	+1100	+1200	+1000	+700	+670
5	+280	-590	+1800	+2900	+1120	+1080	+1070	+870	+610	+650

* 測定電位は μA/cd

* 電極電位50 μA/cd

Family:

Publication number	Publication date	Application number	Application date
CA1310486 A1	19921124	CA19880568688	19880606
DE3884728 D1	19931111	DE19883884728	19880602
DE3884728 T2	19940331	DE19883884728T	19880602
EP0308037 A2	19890322	EP19880305029	19880602
EP0308037 A3	19900307	EP19880305029	19880602
EP0308037 B1	19931006	EP19880305029	19880602
JP1095179 A2	19890413	JP19880218662	19880902
JP2862007 B2	19990224	JP19880218662	19880902
US4759864 A	19880726	US19870093419	19870904

Priority:

US19870093419 19870904 CA19880568688 19880606

Probable Assignee: TEXACO INC 2000 WESTCHESTER AVENUE WHITE PLAINS NY

Assignee(s): (std): TEXACO PETROLEUM ; TEXACO DEVELOPMENT CORP ; TEKISAKO PETORORIUM NV SA ; TEXACO INC AND S A TEXACO PETRO ; TEXACO BELGIUM NV SA ; TEXACO SERVICES EUROP LTD

Assignee(s): TEXACO PETROLEUM NV SA ; TEXACO SERVICES EUROPE LTD ; TEXACO SERVICES EUROPE LTD DOVER DEL US ; TEXACO PETROLEUM 149 AVENUE LOUISE 1050 BRUSSELS A ; TRIEBEL CAROL ANN ; VAN NESTE WALTER ANTOON ; DARDEN JEROME WINN ; MAES JEAN PIERRE ; S A TEXACO PETROLEUM N V ; TEKISAKO BERUGII NV SA ; TEKISAKO DEV CORP ; TEXACO INC ; TEXACO DEV CORP ; TEXACO INC AND S A TEXACO PETRO N V ; TEXACO DEVELOPMENT CORP WHITE PLAINS N Y US ; TEXACO INC 2000 WESTCHESTER AVENUE WHITE PLAINS NY

Inventor(s): (std): DARDEN JEROME W ; DARDEN JEROME WINN ; MAES JEAN P ; MAES JEAN PIERRE ; TRIEBEL CAROL A ; TRIEBEL CAROL ANN ; VAN NESTE WALTER A ; VAN NESTE WALTER ANTOON ; WARUTAA ANTOON BUAN NESUTE ; KIYARORU AN TORIIBERU ; JIYAN PIEERU MAESU ; JIEROMU UIN DAADEN

Inventor(s): VAN NESTE WALTER ANTOON B 9110 ST AMANDSBERG BE ; WARUTAA ANTOON UAN NESUTE ; TRIEBEL CAROL ANN AUSTIN TEXAS US ; MAES JEAN PIERRE B 9220 MERELBEEKE BE ; DARDEN JEROME WINN IRVINE CA 92715 US ; JAN PIEERU MAESU ; JEROMU UIN DAADEN ; KYARORU AN TORIIBERU

Agent(s): SMART AND BIGGAR

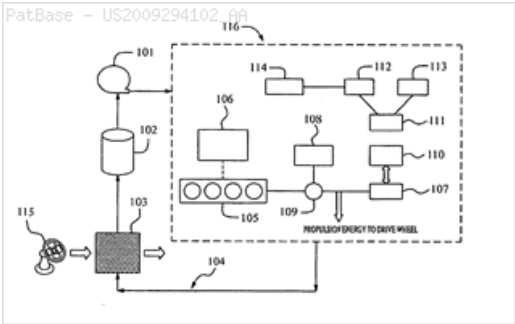
Designated states: BE DE FR GB IT NL SE

Title: HEAT TRANSFER SYSTEM COMPRISING BRAZED ALUMINUM, METHOD, HEAT TRANSFER FLUID, AND ADDITIVE PACKAGE

Abstract: Disclosed herein is heat transfer system, comprising a brazed aluminum component, and a heat transfer fluid in fluid communication with the brazed aluminum component, wherein the heat transfer fluid comprises a liquid coolant, an oxy-anion of molybdenum, tungsten, vanadium, phosphorus, antimony, or a combination thereof, and a corrosion inhibitor. Also disclosed is a method of preventing corrosion in the heat transfer system, and a heat transfer fluid and additive package for use in the heat transfer system.

Classifications:

International (IPC 8-9): C09K5/00 C09K5/04 C09K5/08 C09K5/10 C09K5/20 C23F11/08 F28B3/04 F28D15/00 F28F19/00 F28F21/08 F28F23/00 (Advanced/Invention); C09K5/00 F28B3/00 F28D15/00 F28F21/00 (Core/Invention)
CPC: C09K5/20 C09K5/10 C23F11/08 F28F19/00 F28F23/00
European: C09K5/10 C23F11/08 F28F19/00 F28F23/00
US: 1/1 165/104.19 165/104.190P 165/148 165/148S 252/67 252/68 252/71 252/73 252/74 252/75 62/114 62/114S 62/DIG.02 62/DIG.20 62/DIG.20S



Family:

Publication number	Publication date	Application number	Application date
BRPI0909049 A2	20180424	BR2009PI09049	20090303
EP2255147 A2	20101201	EP20090717823	20090303
EP2255147 A4	20131016	EP20090717823	20090303
JP2011513552 T2	20110428	JP20100549804T	20090303
JP2015063697 A2	20150409	JP20140237495	20141125
JP5993432 B2	20160914	JP20140237495	20141125
US2009294102 AA	20091203	US20090396758	20090303
US2014225025 AA	20140814	US20140243207	20140402
US8696927 BB	20140415	US20090396758	20090303
US9249348 BB	20160202	US20140243207	20140402
WO09111443 A2	20090911	WO2009US35829	20090303
WO09111443 A3	20091210	WO2009US35829	20090303

Priority:

US20080033186	20080303	US20080033186P	20080303	JP20100549804	20090303
JP20100549804T	20090303	US20090396758	20090303	WO2009US35829	20090303
US20140243207	20140402				

Probable Assignee: PRESTONE PRODUCTS CORP

Assignee(s): (std): HONEYWELL INT INC LAW DEP ; HONEYWELL INT INC ; YANG BO ; WOYCIESJES PETER M ; MARINHO FILIPE J ; PRESTONE PRODUCTS CORP ; GERSHUN ALEKSEI V

Assignee(s): HONEYWELL INT INC LAW DEPARTMENT PATENT SERVICES ; KIK NEW JERSEY LLC ; MARIETTA CORP ; SOLSKYN PERSONAL CARE LLC ; APG INC ; AQUA CLEAR IND LLC ; ASEPSIS INC ; BARCLAYS BANK PLC COLLATERAL AGENT AS ; BIO LAB INC ; CREDIT SUISSE FIRST LIEN COLLATERAL AGENT AG AS ; CREDIT SUISSE SECOND LIEN COLLATERAL AGENT AG AS ; FRAM GROUP IP LLC ; CYGNUS CORP ; HILEX LLC ; HOMECARE LABS INC ; KIK CUSTOM PRODUCTS INC ; KIK INT LLC

Inventor(s): (std): GERSHUN ALEKSEI V ; MARINHO FILIPE J ; WOYCIESJES PETER M ; YANG BO ; PETER M WOYCIESJES ; FILIPE J MARINHO ; BO YANG ; ALEKSEI V GERSHUN ; ALEKSEI GERSHUN

Agent(s): BUCKLEY GUY JULIAN; ONO SHINJIRO; KOBAYASHI YASUSHI; TOMITA HIROYUKI; CHIBA AKIO; YAMAMOTO OSAMU; MATSUDA TOYOHARU; TAKEUCHI SHIGEO; HONEYWELL INT INC PATENT SERVICES; BRIAN R; BARNES AND THORNBURG LLP; GREGORY H; BOEHM CHRISTOPHER C

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: Process for inhibiting the corrosion of aluminum

Abstract: Corrosion inhibited alcohol compositions can be prepared which are suitable for use as anti-freeze compositions in the cooling systems of internal combustion engines. The alcohol is selected from at least one of the group consisting of methanol, ethanol, propanol, ethylene glycol, diethylene glycol, triethylene glycol, propylene glycol and glycerol. The corrosion inhibitor comprises an effective amount of a conventional corrosion inhibitor selected from the group consisting of the alkali metal carbonates, borax, the alkali metal dichromates, the alkali metal silicates, phosphorous acid, phosphoric acid, an alkali metal tungstate, benzotriazole, tolyltriazole, an alkali metal salt of benzoic or toluic acid, an alkali metal salt of a phenol, an alkanolamine and an organo-silicone compound in addition to an alkanolamine phosphate and a heterocyclic nitrogen-containing compound. The phosphate is the reaction product of an alkanolamine and phosphoric acid. The heterocyclic nitrogen-containing compound has the formula:

Classifications:

International (IPC 8-9): C09K5/20 C23F11/08

C23F11/14 (Advanced/Invention);

C09K5/00 C23F11/08 C23F11/10 (Core/Invention)

International (IPC 1-7): C23F11/14 C23F11/16 C23F11/18

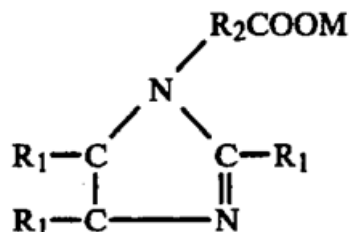
CPC: C09K5/20 C23F11/08

European: C09K5/20 C23F11/08

US: 252/389.2 252/389.21 252/389A 252/389R 252/390 252/392

252/75 252/76 422/14 422/15 422/16 422/17 422/18 422/19 422/7

PatBase - US4389371_A



Family:

Publication number	Publication date	Application number	Application date
CA1150044 A1	19830719	CA19800360152	19800912
US4389371 A	19830621	US19810281516	19810708
US4452758 A	19840605	US19830495095	19830516

Priority:

US19790075689 19790914

CA19800360152 19800912

US19810281516 19810708

US19830495095 19830516

Probable Assignee: ASHLAND LICENSING AND INTELLECTUAL PROPERTY LLC

Assignee(s): (std): BASF WYANDOTTE CORP

Assignee(s): MAXWELL JERROLD F ; WILSON JOE C ; EISENSTEIN STEPHEN E ; HIROZAWA STANLEY T ; BASF WYANDOTTE 1609 BIDDLE AVENUE WYANDOTTE MI ACORP OF MI CORP ; ASHLAND LICENSING AND INTELLECTUAL PROPERTY LLC ; ASHLAND OIL INC ; BASF CORP ; BASF WYANDOTTE 1609 BIDDLE AVENUE WYANDOTTE MI ACO

Inventor(s): (std): EISENSTEIN STEPHEN E ; HIROZAWA STANLEY T ; MAXWELL JERROLD F ; WILSON JOE C

Agent(s): ROBIC ROBIC AND ASSOCIES ASSOCIATES

Title: HEAT TRANSFER FLUID, ADDITIVE PACKAGE, SYSTEM AND METHOD

Abstract: Disclosed herein is a heat transfer fluid, comprising a hydroxylated carboxylic acid of formula $(OH)_x(R_1)(COOH)_y$, wherein x is 2 to 10, y is 3 to 10, and R_1 is a C2-50 aliphatic group, a C6-50 aromatic group, or a combination thereof; and wherein the hydroxylated carboxylic acid comprises the hydroxylated carboxylic acid, an ester thereof, a salt thereof, an anhydride thereof, or a combination thereof. A heat transfer system comprises an aluminum component, a magnesium component, or an aluminum component and a magnesium component; and the foregoing heat transfer fluid.

Classifications:

International (IPC 8-9): C07C59/245 C07C59/48 C09K5/00 C09K5/08 C09K5/10 C09K5/16 C09K5/18 C09K5/20 C23F11/10 C23F11/12 (Advanced/Invention); C09K5/16 C09K5/18 (Advanced/Non-invention); C09K5/00 (Core/Invention)

CPC: C23F11/10 C23F11/124 C09K5/20 C07C59/245 C07C59/48 C09K5/10

European: C09K5/10 C23F11/10 C23F11/12C

US: 1/1 252/67 252/67P 252/68 252/69 252/71 252/76 252/78.1 252/78.3 252/79 562/465 562/582

PatBase - US2010006796_AA

Patent Application Publication Jan. 14, 2010 US 2010/0006796 A1

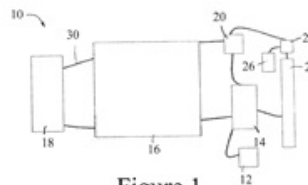


Figure 1

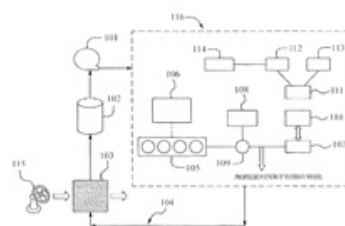


Figure 2

Family:

Publication number	Publication date	Application number	Application date
■ CN102149786 A	20110810	CN200980135338	20090710
■ CN102149786 B	20131113	CN200980135338	20090710
■ EP2300554 A2	20110330	EP20090795235	20090710
■ EP2300554 A4	20150805	EP20090795235	20090710
■ JP2011527726 T2	20111104	JP20110517653T	20090710
■ KR101615178 B1	20160512	KR20117002431	20090710
■ KR20110040873 A	20110420	KR20117002431	20090710
■ US2010006796 AA	20100114	US20090500220	20090709
■ US2014319409 AA	20141030	US20140325990	20140708
■ US8771542 BB	20140708	US20090500220	20090709
■ US9267067 BB	20160223	US20140325990	20140708
■ WO10006256 A2	20100114	WO2009US50249	20090710
■ WO10006256 A3	20100401	WO2009US50249	20090710

Priority:

US20080080011 20080711 US20080080011P 20080711 US20090500220 20090709
WO2009US50249 20090710 US20140325990 20140708

Probable Assignee: HONEYWELL INT INC

Assignee(s): (std): HONEYWELL INT INC ; GERSHUN ALEKSEI V ; YANG BO ; WOYCIESJES PETER M ; PRESTONE PRODUCTS CORP

Assignee(s): KIK NEW JERSEY LLC ; MARIETTA CORP ; SOLSKYN PERSONAL CARE LLC ; APG INC ; AQUA CLEAR IND LLC ; ASEPSIS INC ; BARCLAYS BANK PLC COLLATERAL AGENT AS ; BIO LAB INC ; CREDIT SUISSE FIRST LIEN COLLATERAL AGENT AG AS ; CREDIT SUISSE SECOND LIEN COLLATERAL AGENT AG AS ; FRAM GROUP IP LLC ; CYGNUS CORP ; HI LEX LLC ; HOMECARE LABS INC ; KIK CUSTOM PRODUCTS INC ; KIK INT LLC

Inventor(s): (std): GERSHUN ALEKSEI V ; WOYCIESJES PETER M ; YANG BO ; BO YANG

Agent(s): BUCKLEY GUY JULIAN; SOMA TAKAYOSHI; ONO SHINJIRO; KOBAYASHI YASUSHI; TOMITA HIROYUKI; CHIBA AKIO; HONEYWELL INT INC PATENT SERVICES; BRIAN R; BARNES AND THORNBURG LLP; GREGORY H; BOEHM CHRISTOPHER C

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: HEAT TRANSFER FLUIDS AND CORROSION INHIBITOR FORMULATIONS FOR USE THEREOF

Abstract: Disclosed herein is a heat transfer fluid concentrate comprising: greater than or equal to 90 weight percent of a freezing point depressant; 16 to 80 ppm of magnesium ions; an azole compound; an inorganic phosphate; a carboxylate; and an acrylate based polymer, wherein the heat transfer fluid concentrate has a pH of 7-9.5 and the weight ratio of acrylate based polymer to magnesium ions is 1 to 25. The heat transfer fluid concentrate can be used to make a heat transfer fluid.

Classifications:

International (IPC 8-9): B60K11/02 C09K5/00 C09K5/10 C09K5/20 C23F11/08 C23F11/12 C23F11/14 C23F11/173 C23F11/18 C23F15/00 C9K5/00 (Advanced/Invention)

International (IPC 1-7): C09K5/00

CPC: C09K5/20 C09K5/00 C23F11/184 C09K5/10 C23F11/08

US: 1/1 252/68 252/73 252/74 252/75 252/77 252/78 422/7

Family:

Publication number	Publication date	Application number	Application date
AR092473 AA	20150422	AR2013P103181	20130906
BR112015004971 A2	20170704	BR20151104971	20130822
CA2884424 AA	20150306	CA20132884424	20130822
CN104884564 A	20150902	CN201380046726	20130822
EP2892970 A1	20150715	EP20130836081	20130822
EP2892970 A4	20160420	EP20130836081	20130822
IN01808DN2015 A	20150529	IN2015DN01808	20150304
JP2015533885 T2	20151126	JP20150531109T	20130822
KR20150054878 A	20150520	KR20157008363	20130822
MX2015002967 A1	20151009	MX20150002967	20130822
RU2015112340 A	20161027	RU20150112340	20130822
TW201418437 A	20140516	TW20130132247	20130906
US2014119983 AA	20140501	US20130087796	20131122
US2015376484 AA	20151231	US20150850105	20150910
US2016017200 AA	20160121	US20150867901	20150928
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US8617416 BA	20131231	US20120606452	20120907
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US9453153 BB	20160927	US20150850105	20150910
US9567507 BB	20170214	US20150867901	20150928
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WO14039284 A1	20140313	WO2013US56268	20130822

Priority:

US20120606452 20120907 WO2013US56268 20130822 US20130087796 20131122
US20150850105 20150910 US20150867901 20150928 US20160276010 20160926

Probable Assignee: PRESTONE PRODUCTS CORP

Assignee(s): (std): GERSHUN ALEKSEI V ; WOYCIESJES PETER M ; YANG BO ; PRESTONE PRODUCTS CORP

Assignee(s): KIK NEW JERSEY LLC ; MARIETTA CORP ; SOLSKYN PERSONAL CARE LLC ; APG INC ; AQUA CLEAR IND LLC ; ASEPSIS INC ; BARCLAYS BANK PLC COLLATERAL AGENT AS ; GERSHUN ALEKSEI ; BIO LAB INC ; CYGNUS CORP ; HI LEX LLC ; HOMECARE LABS INC ; KIK CUSTOM PRODUCTS INC ; KIK INT LLC

Inventor(s): (std): ALEKSEI GERSHUN ; ALEKSEI V GERSHUN ; BO YANG ; GERSHUN ALEKSEI ; GERSHUN ALEKSEI V ; PETER M WOYCIESJES ; WOYCIESJES PETER M ; YANG BO

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: HEAT TRANSFER FLUID CONCENTRATE

Abstract: Disclosed herein is a heat transfer fluid concentrate comprising greater than or equal to 25 weight percent (wt percent), based on the total weight of the concentrate, of glycerin, propylene glycol, or a combination of glycerin and propylene glycol, and greater than or equal to 30 wt percent, based on the total weight of the concentrate, of a corrosion inhibitor or combination of corrosion inhibitors.

Classifications:

International (IPC 8-9): C09K5/00 C09K5/10 C23F11/08 (Advanced/Invention)

CPC: C09K5/00 C09K5/10 C09K5/20

US: 252/73 252/74 252/75 252/79

Family:

Publication number	Publication date	Application number	Application date
AR092468 AA	20150422	AR2013P103176	20130906
TW201418438 A	20140516	TW20130132245	20130906
US2014070134 AA	20140313	US20120606496	20120907
WO14039282 A1	20140313	WO2013US56262	20130822

Priority:

US20120606496 20120907

Probable Assignee: PRESTONE PRODUCTS CORP

Assignee(s): (std): GERSHUN ALEKSEI V ; PRESTONE PRODUCTS CORP ; WOYCIESJES PETER M

Inventor(s): (std): ALEKSEI V GERSHUN ; GERSHUN ALEKSEI ; GERSHUN ALEKSEI V ; PETER M WOYCIESJES ; WOYCIESJES PETER M

Agent(s): DORN BRIAN R ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: Corrosion-inhibited antifreeze formulations having monocarboxylic, triazole, and imidazole compounds

Abstract: Antifreeze concentrate is disclosed having water soluble liquid alcohol freezing point depressant and corrosion inhibitor comprising carboxylic acids or their salts and a triazole compound, wherein the concentrate contains: (1) C5-C16 aliphatic monobasic acid or the alkali metal, ammonium or amine salt thereof; (2) hydrocarbyl triazole; and (3) imidazole.

Classifications:

International (IPC 8-9): C09K3/00 C09K5/00 C09K5/20 C23F11/10 C23F11/12 C23F11/14 (Advanced/Invention);

C09K3/00 C09K5/00 C23F11/10 (Core/Invention)

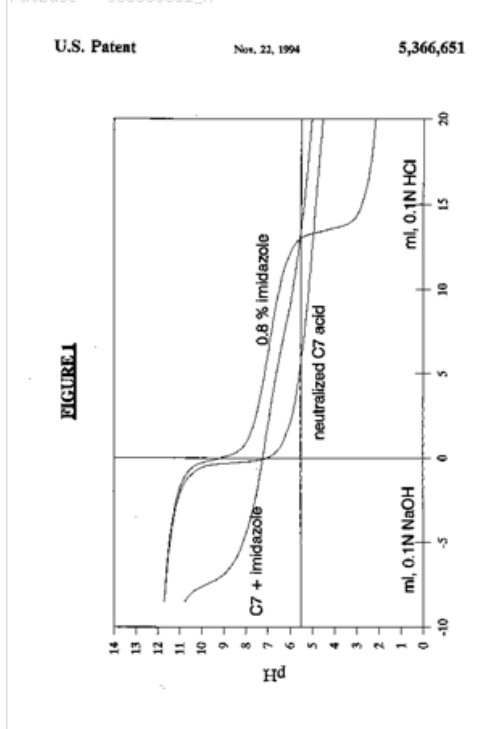
International (IPC 1-7): C09K3/00 C09K5/0 C09K5/00 C23F11/10 C23F11/12 C23F11/14

CPC: C09K5/20 C23F11/10

European: C09K5/20 C23F11/10

US: 252/390 252/391 252/73 252/74 252/75 252/76 252/77

PatBase - US5366651_R



Family:

Publication number	Publication date	Application number	Application date
CA2093411 AA	19931007	CA19932093411	19930405
CA2093411 C	20040810	CA19932093411	19930405
DE69220209 D1	19970710	DE19926020209	19920406
DE69220209 T2	19971002	DE19926020209T	19920406
EP0564721 A1	19931013	EP19920303005	19920406
EP0564721 B1	19970604	EP19920303005	19920406
ES2103888 T3	19971001	ES19920303005T	19920406
JP3487874 B2	20040119	JP19930079396	19930406
JP7278855 A2	19951024	JP19930079396	19930406
US5366651 A	19941122	US19930039591	19930326

Priority:

EP19920303005 19920406 CA19932093411 19930405

Probable Assignee: TEXACO SERVICES EUROPE LTD

Assignee(s): (std): TEXACO SERVICES EUROP LTD

Assignee(s): TEXACO SERVICES EUROPE LTD GHENT BE ; TEXACO SERVICES EUROPE LTD ; TEXACO SERVICES EUROPE LIMITED ; TEXACO SERVICES LTD ; VAN NESTE WALTER ANTOON ; MAES JEAN PIERRE ; TEXACO SAABISHISU EUROP LTD

Inventor(s): (std): JIYANNPIERU MAESU ; MAES JEAN PIERRE ; VAN NESTE WALTER A ; VAN NESTE WALTER ANTOON ; WARUTERU ANTOON FUAN NESUTE

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Agent(s): SMART AND BIGGAR

Designated states: BE DE ES FR GB IT NL PT SE

Title: COMBINATIONS OF ALKANOIC HYDROCARBYL DICARBOXYLIC AND CARBOCYCLIC ALKANOIC ACIDS OR SALTS
USEFUL AS HEAT TRANSFER FLUID CORROSION INHIBITORS

Abstract: Corrosion inhibitors containing alkanolic, hydrocarbyl dicarboxylic and carbocyclic-substituted, alkanolic acids or salts give high performance, heat transfer fluids and antifreezes, with improved properties including storage stability.

Classifications:

International (IPC 8-9): C09K15/06 C09K5/00 C09K5/08 C09K5/20
C23F11/10 C23F11/12 (Advanced/Invention);

C09K15/00 C09K5/00 C23F11/10 (Core/Invention)

International (IPC 1-7): C09K15/06 C09K5/00 C09K5/08 C23F11/10
C23F11/12

CPC: C23F11/10 C23F11/126 C09K5/20

European: C09K5/20 C23F11/12C2

US: 252/389.61 252/389.62 252/396 252/68 252/76 252/79 422/17

PatBase - JP6033055_R2



Family:

Publication number	Publication date	Application number	Application date
CA2078898 AA	19931204	CA19922078898	19920923
CA2078898 C	20040525	CA19922078898	19920923
DE69300390 D1	19950928	DE19936000390	19930603
DE69300390 T2	19960201	DE19936000390T	19930603
EP0573287 A1	19931208	EP19930304292	19930603
EP0573287 B1	19950823	EP19930304292	19930603
JP3258133 B2	20020218	JP19930126768	19930528
JP6033055 A2	19940208	JP19930126768	19930528
US5242621 A	19930907	US19920892875	19920603

Priority:

US19920892875 19920603 CA19922078898 19920923 CA19922078898 19920923

Probable Assignee: TEXACO INC

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Assignee(s): TEXACO CHEMICAL CO A CORP OF DE ; TEXACO CHEMICAL CO ; TEXACO INC ; TEXACO CHEMICAL CO HOUSTON TEX US ; TEXACO DEVELOPMENT CORP WHITE PLAINS N Y US ; BENAC BRIAN L ; KNIFTON JOHN F ; MILLER DAVID L ; TEXACO CHEM CO

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Agent(s): SMART AND BIGGAR

Designated states: DE FR GB