CLAIMS:

1. The use of copolymers obtained by
- in a first reaction step (I) copolymerizing

(A) at least one ethylenically unsaturated mono- or dicarboxylic acid or derivatives thereof, selected from the group consisting of
- anhydrides in monomeric or polymeric form,
- mono- or dialkyl esters, and
- mixed esters,
(B) at least one α -olefin having from at least 16 up to and including 28 carbon atoms,
(C) optionally at least one further aliphatic or cycloaliphatic olefin which has at least 4 carbon atoms and is different than (B) and
(D) optionally one or more further copolymerizable monomers other than monomers (A), (B) and (C), selected from the group consisting of
(Da) vinyl esters,
(Db) vinyl ethers,
(Dc) (meth)acrylic esters of alcohols having at least 5 carbon atoms,
(Dd) allyl alcohols or ethers thereof,
(De) N-vinyl compounds selected from the group consisting of vinyl compounds of heterocycles containing at least one nitrogen atom, N-vinylamides or N-vinyllactams,
(Df) ethylenically unsaturated aromatics,
(Dg) α ,β -ethylenically unsaturated nitriles,
(Dh) (meth)acrylamides and
(Di) allylamines,
followed by
- in a second reaction step (II) partly or fully hydrolyzing anhydride or carboxylic ester functionalities present in the copolymer obtained from (I), the second reaction step being run at least when the copolymer obtained from reaction step (I) does not comprise any free carboxylic functionalities,
to obtain a copolymer having a weight-average molecular weight Mw (determined by gel permeation chromatography with tetrahydrofuran and polystyrene as standard) of 1.5 to 4 kDa

as corrosion inhibitors in diesel fuels or gasoline fuels having a content of alkali metals and/or alkaline earth metals and/or zinc of at least 0.1 ppm by weight.

2. The use according to claim 1, wherein the alkali metals and/or alkaline earth metals and/or zinc are selected from the group consisting of sodium, zinc, magnesium and calcium.

3. The use according to either of the preceding claims, wherein monomer (A) is selected from the group consisting of acrylic acid, methacrylic acid, methyl acrylate, ethyl acrylate, n-butyl acrylate and methyl methacrylate and maleic anhydride.

4. The use according to either of claims 1 and 2, wherein monomer (A) is a dicarboxylic acid or derivatives thereof, selected from the group consisting of
- anhydrides in monomeric or polymeric form,
- mono- or dialkyl esters, and
- mixed esters.

5. The use according to any one of the preceding claims, wherein monomer (B) is an α -olefin having at least 18 up to and including 26 carbon atoms.

6. The use according to any one of the preceding claims, wherein olefin (C) is a polymer having more than 30 carbon atoms of propene, 1-butene, 2-butene or isobutene or olefin mixtures comprising the latter, having a weight-average molecular weight $M_w$ in the range from 500 to 5000 g/mol.

7. The use according to any one of claims 1 to 5, wherein olefin (C) is a polymer of isobutene or olefin mixtures comprising the latter, having more than 30 carbon atoms and having a weight-average molecular weight $M_w$ in the range from 500 to 5000 g/mol.

8. The use according to any one of the preceding claims, wherein mixture of the olefins (B) and (C) averaged to the molar amounts thereof has at least 12 carbon atoms.

9. The use according to any one of the preceding claims, wherein monomer (D) is selected from the group consisting of (Da), (Db), (Dc), (De) and (Df).

10. The use according to any one of the preceding claims, wherein the molar ratio of (A) / ((B) and (C)) (in total) is from 10:1 to 1:10.

11. The use according to claim 8, wherein the molar ratio of monomer (B) to monomer (C) is from 1:0.05 to 10.

12. The use according to claim 8 or 9, wherein the proportion of one or more of the monomers (D), based on the amount of the monomers (A), (B) and optionally (C) (in total), is 5 to 200 mol%.

13. The use according to any one of the preceding claims for inhibition of corrosion of iron surfaces, steel surfaces and/or nonferrous metal surfaces.

14. The use according to any one of claims 1 to 12 for inhibition of corrosion of copper and copper-containing alloys.