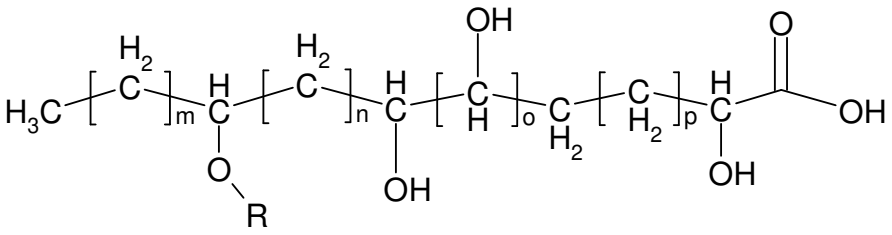
Claims

1. The use of a compound of the formula I, or a mixture of two or more such compounds of the formula I,



I

wherein m is 3 to 5, n is 2 to 5, o is 0 or 1 and p is 3 to 17, with the proviso that the sum m + n + o + p is not less than 14; and

R is a carbohydrate moiety bound via one of its carbon atoms to the binding oxygen and where the moiety R carries at least one hydroxyl group acylated with an acid with 3 or more carbon atoms,
and/or a physiologically, especially pharmaceutically or nutraceutically or cosmetically, acceptable salt thereof, or an ester thereof,

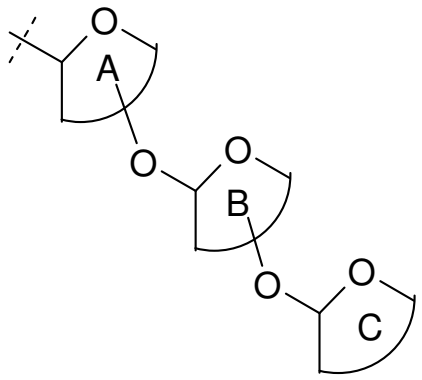
where the compound may be present in open chain form and/or in the form of a lactone wherein the terminal carboxyl group of the carboxylic acid chain forms the lactone with one of the hydroxyl groups present on the rest of the compound of the formula I,

as agent with preservative properties against fungi,

comprising adding the agent to a material selected from the group consisting of a cosmetic, a food, a beverage, a pharmaceutical, a medical device, and an active packaging material.

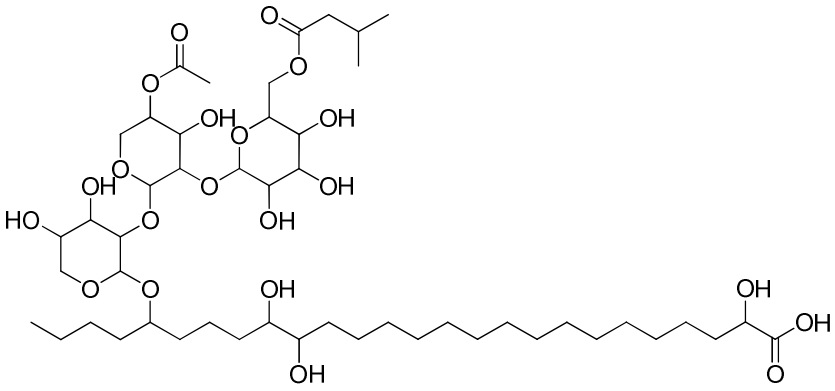
2. The use according to claim 1, where the material to which the agent is added is a cosmetic, a food or a beverage.

3. The use according to claim 1 or claim 2, where in the compound of the formula I, m is 3 to 5, n is 2 to 5, o is 0 or 1, p is 5 to 15 and R is a moiety of the subformula

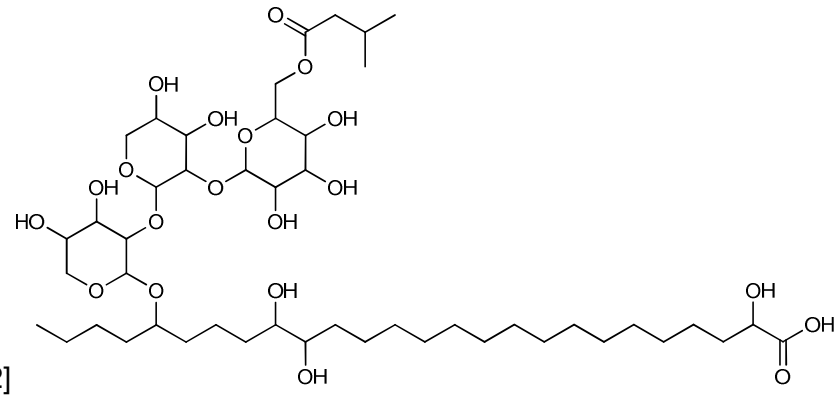


wherein the rings A, B and C are monosaccharide moieties each independently from the others with 5 or 6 ring members, wherein one or more of the hydroxyl groups may be acylated, preferably by a C_2-C_{10} alkanoic acid, or where the terminal carboxyl group of the compound of the formula I is esterified with an alcohol with 1 to 10 carbon atoms.

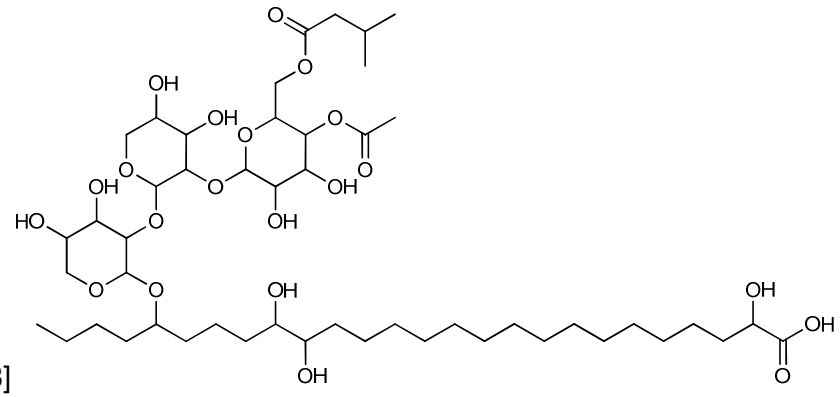
4. The use according to claim 1, wherein the compound or mixture of compounds of the formula I comprises, preferably is, at least one compound selected from the group of compounds with the following formulae:



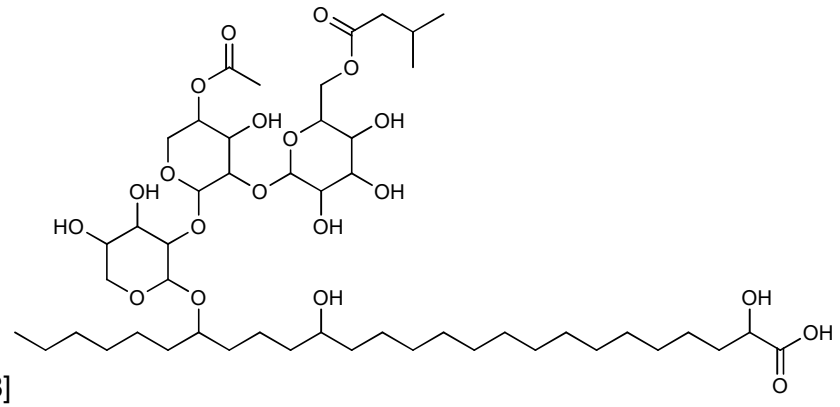
[1]



[12]



[13]



[18]

or a physiologically acceptable salt thereof.

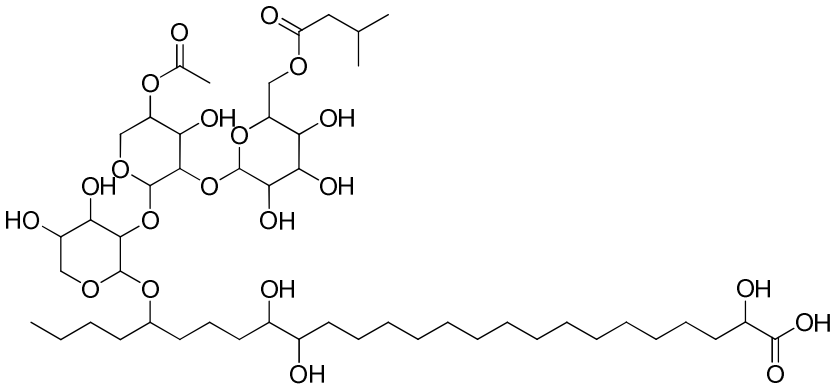
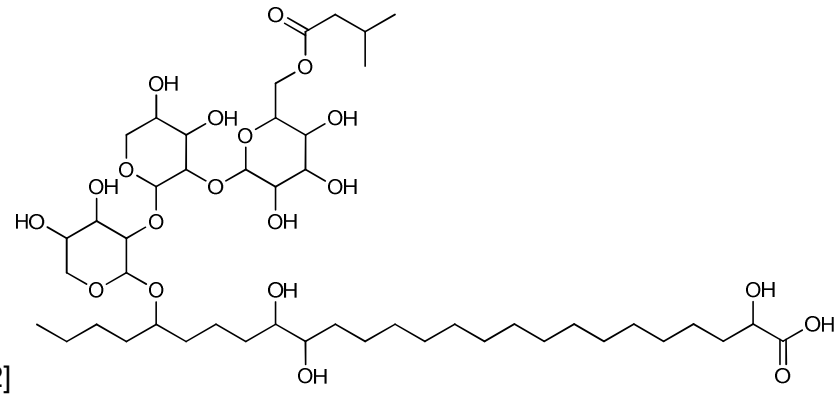
5. The use according to claim 1, where at least one additional preservative is added.

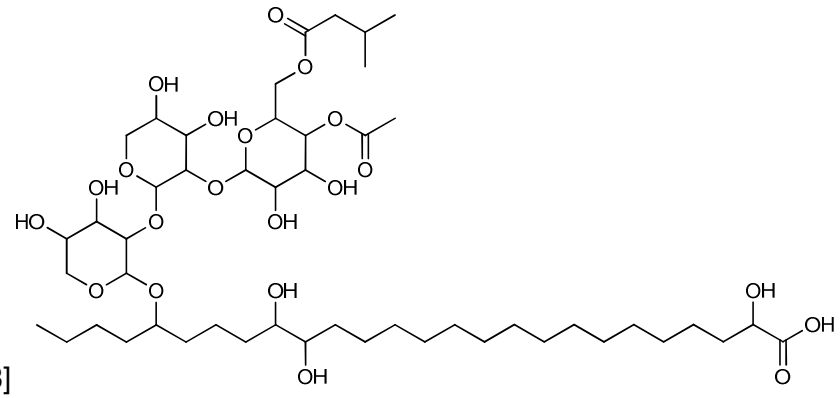
6. The use according to claim 1, where the compound or compounds of the formula I, a physiologically acceptable salt thereof, and/or an ester thereof, is added in the form of an extract from a natural source or obtained from such an extract.

7. The use according to claim 6, where the source of the extract is *Dacryopinax spathularia* strain FU50088, *Ditiola radicata* strain MUCL 53180, *Ditiola nuda* strain CBS 173.60 or *Femsjonia luteo-alba* (= *Ditiola pezizaeformis*) strain MUCL 53500.

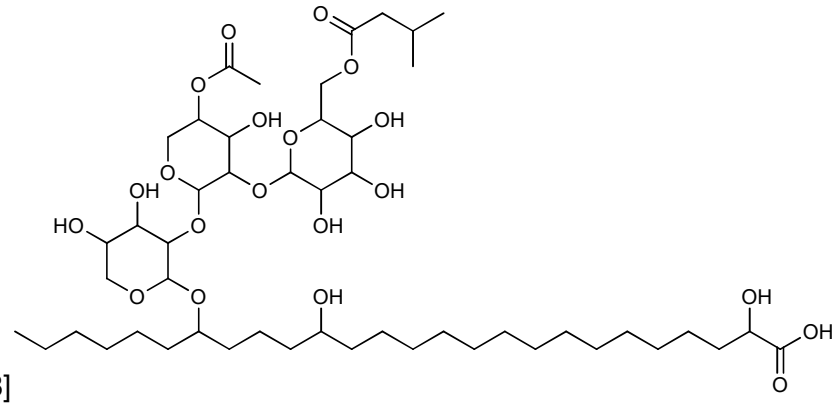
8. A purified compound or a purified mixture of compounds of the formula I shown in claim 1 or as defined in any one of claims 3, 4, 6 or 7, where the moiety R carries at least one hydroxyl group acylated with an acid with 3 or more carbon atoms, a physiologically acceptable salt, and/or an ester thereof.

9. A purified compound of the formula I shown in claim 1, selected from the group of compounds represented in the following table:

	[1]
	[12]



[13]



[18]

and/or a physiologically acceptable salt, and/or an ester thereof.

10. A method of enhancing microbial stability of a material selected from the group consisting of a cosmetic, a food, a beverage, a pharmaceutical, a medical device and an active packaging material, comprising adding one or more compounds of the formula I where the moiety R carries at least one hydroxyl group acylated with an acid with 3 or more carbon atoms, a physiologically acceptable salt thereof, and/or an ester thereof, as shown or defined in any one of claims 1, 3, 4, 8 or 9.

11. A material comprising, as or within a coating and/or as admixture, an additive in the form of a compound or a mixture of compounds of the formula I, a physiologically acceptable salt thereof and/or an ester thereof, as defined in any one of claims 1, 3, 4, 8 or 9, which material is a cosmetic, a food, a beverage, a pharmaceutical, a medical device, or an active packaging material.

12. The material according to claim 11, where the beverage is selected from the group consisting of water, flavoured water, fortified water, a flavoured beverage, carbonated water, a juice, cola, lemon-lime, ginger ale, root beer beverages which are carbonated in the manner of soft drinks, a syrup, a diet beverages, a carbonated soft drink, a fruit juice, other fruit containing beverages which provide the flavor of fruit juices and contain greater than 0% fruit juice but less than 100% fruit juice, fruit flavored beverages, vegetable juices, vegetable containing beverages, which provide the flavor of any of the aforementioned vegetable juices and contain greater than 0% vegetable juice but less than 100% vegetable juice, isotonic beverages, non-isotonic beverages, soft drinks containing a fruit juice, coffee, tea, tea beverages prepared from tea concentrate, extracts, or powders, drinkable dairy products, hot chocolate, chocolate powders/mixes, drinkable soy products, non-diary milks, alcoholic beverages, fruit smoothies, horchata, sport drinks, energy drinks, health drinks, wellness drinks, shakes, protein drinks, drinkable soy yogurts, low acid beverages, acidified beverages, nectars, tonics, frozen carbonated beverages, frozen uncarbonated beverages, liquid meal replacements, infant formulations, and combinations or mixtures thereof; or the material is a cosmetic selected from a cream, emulsion, lotion, gel or oil for the skin; a face masks, a tinted base, a make-up powder, an after-bath powder, a hygienic powder, a toilet soap, a deodorant soap, a perfumes, a toilet water, an eau de Cologne, a bath or shower preparation; a depilatory; a deodorant, an anti-perspirant, a hair care product; a setting product; a cleansing product; a conditioning product; a hairdressing product; a shaving products; a product for making up and removing make-up from the face and the eyes, a product intended for application to the lips, a products for care of the teeth and/or the mouth; a product for nail care and/or make-up, a product for external intimate hygiene, a sunbathing product, a product for tanning without sun, a skin-whitening product, an anti-wrinkle product, a tampon, a sanitary towel, a diaper and a handkerchief.