This active product contained in the product line already mentioned, and thus belonging to the state of art, at certain concentrations can strongly invalidate the activity of the biological plant with a biocidal effect downstream of the decontamination treatment. This effect appears in a very evident way in the petrochemical field wherein the poor quantity of sulphides increases the quantity of not reacted amine oxide and consequently it increases the concentration thereof upon discharging.

The disadvantages connected to the use of the product of the state of art (Zymeflow 657) are wholly solved with the present invention, without any loss in effectiveness or the positive features which brought this technology to be leader on the market.

Summary

In one aspect, there is provided a composition comprising a trialkylamine oxide wherein the alkyl radical may be linear or branched and have a number of carbon atoms comprised between 1 and 6 and a surfactant selected from the class consisting of Alkyl polyglucosides.

In another aspect, there is provided use of the composition described herein for the cleaning of refinery plants, petrochemical plants and storage tanks for crude oil.

In another aspect, there is provided use of a trialkylamine oxide wherein the alkyl radical may be linear or branched and show a number of carbon atoms comprised between 1 and 6 for the cleaning of refinery plants, petrochemical plants and storage tanks for crude oil.

Description of the invention

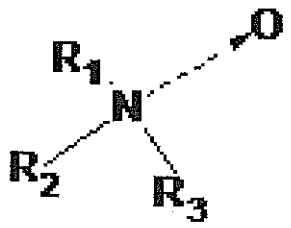
The advantages, features and use modes of the present invention will result evident from the following detailed description of some embodiments, shown by way of example and not for limitative purpose.

The present invention relates to a composition comprising an Amine - Oxide which is different from those claimed in the above described patents which is not a surfactant, but only an oxidant and a wholly biodegradable surfactant, with low COD, effective in cleaning but with no toxicity with respect to the disposal biological plant.

Used Amine-Oxide: Tri Methyl Amine Oxide (TMAO). The advantages of the composition according to the invention are

- no surface-active property and then no biocidal power; classified as not dangerous in handling
- good oxidizing force (higher than LDMAO)
- much higher oxygen content than LDMAO and then it reaches the parity of oxidizing force at much lower concentrations
- once reacted with the sulphides it forms Tri Methyl Amine which is a gas and then it does not remain in the waste water and it does not increase the COD. Usually it is conveyed in the gas discharge in burning torch, as all hydrocarbon vapours during the decontamination phase.

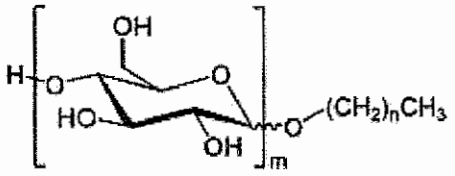
The Amine Oxide to be inserted in the composition of the present invention is a TriAlkyl Amine Oxide of formula



CLAIMS

1. A composition comprising
   a trialkylamine oxide wherein the alkyl radical may be linear or branched and have a number of carbon atoms comprised between 1 and 6 and
   a surfactant selected from the class consisting of Alkyl polyglucosides.
2. The composition according to claim 1, wherein said alkyl radical is trimethyl.
3. The composition according to claim 1 or 2, wherein said trialkylamine oxide and said surfactant are contained in a weight/weight ratio between 100:1 and 1:100.
4. The composition according to at least one of the preceding claims, wherein said surfactant is selected from the class consisting of alkyl-polyglucosides of following formula I

(I)



wherein
n is comprised between 8 and 16
m is an integer from 1 to 3
for use in the cleaning of refinery plants, petrochemical plants and storage tanks for crude oil.

5. The composition according to at least one of the preceding claims further containing further additives usual in the technical field
6. The composition according to claim 5, wherein said additives belong to the class formed by corrosion inhibitors, odorants, colorants, peroxides, terpenes and biodiesel.