These objects, and further objects which are not stated explicitly but are immediately derivable or discernible from the connections discussed herein by way of introduction, are achieved by a process for reducing the paraffin content of mineral oil compositions having all the features of patent claim 1. Appropriate modifications to the inventive fuel composition are protected in the dependent claims referring back to claim 1.

The present ~~invention~~disclosure accordingly provides a process for reducing the paraffin content of mineral oil compositions, by providing a mineral oil composition with a dewaxing aid, cooling to form a paraffin precipitate and at least partly removing the paraffin precipitate formed, characterized in that the dewaxing aid used is a copolymer mixture comprising at least four copolymers, the copolymers differing in the composition of the repeat units.

In one aspect, there is provided a process for reducing the paraffin content of mineral oil compositions, by providing a mineral oil composition with a dewaxing aid, cooling to form a paraffin precipitate and at least partly removing the paraffin precipitate formed, characterized in that the dewaxing aid used is a copolymer mixture comprising at least four copolymers, the copolymers differing in the composition of the repeat units and the copolymers containing repeat units derived from alkyl methacrylates having 16 to 18 carbon atoms, and repeat units derived from alkyl acrylates having 19 to 22 carbon atoms and said copolymer mixture is prepared by copolymerization of a monomer mixture consisting of at least one acrylate and at least one methacrylate in one polymerization step.

In another aspect, there is provided a dewaxing aid for reduction of the paraffin content of mineral oil compositions comprising copolymers having repeat units derived from alkyl (meth)acrylates, characterized in that the dewaxing aid comprises a copolymer mixture having at least four copolymers, the copolymers differing in the composition of the repeat units and the copolymers containing repeat units derived from alkyl methacrylates having 16 to 18 carbon atoms, and repeat units derived from alkyl acrylates having 19 to 22 carbon atoms and said copolymer mixture is prepared

by copolymerization of a monomer mixture consisting of at least one acrylate and at least one methacrylate in one polymerization step.

It is thus possible in an unforeseeable manner to provide a process for reducing the paraffin content of mineral oil compositions having an improved profile of properties.

More particularly, the process has high performance in relation to the removal of the paraffins. Accordingly, relatively large volumes of treated mineral oil composition can be freed of paraffin-containing precipitate. In addition, the removal apparatuses can be operated over a long period without interruption. Furthermore, the maintenance complexity of the removal apparatuses is very low.

Moreover, the process can be used for upgrading of many different mineral oil compositions without needing to adjust the various process parameters in a complex manner. Furthermore, the yield of upgraded mineral oil is very high, and this improvement is achieved for a multitude of different starting materials.

In addition, the performance of the process, especially the crystallization of the paraffin to be removed, can be effected at comparatively high speed.