Abstract

The object of the invention is a method for producing naphthenic process oils (7) that have a high content of naphthenic carbon atoms of 20-60 wt% and a low content of polycyclic aromatics of less than 3 wt%, determined in accordance with IP 346, by the hydrogenation (6) of a process oil educt that has a high content of polycyclic aromatics. The method in accordance with the invention enables secondary extracts (5), such as are formed in the production of label-free [nonhazardous] process oils, even in a mixture with primary extracts, to be utilized in an economically meaningful way. The resulting process oils are likewise label-free [nonhazardous], so that the use of PCA-containing process oils can be reduced and less of these substances will get into the environment. Through this the environment and in particular health are less stressed. In addition, the starting substances in this way can lead to a different use and no longer have to be added to heating oil. By avoiding heating oil, CO_2 emissions are also reduced. Also, through the direct hydrogenation of DAE, high value naphthenic process oils (7) are obtained by the method in accordance with the invention. The process oils (7) that are obtained contain surprisingly high amounts of naphthenic hydrocarbon compounds. In addition, an object of the invention is the use of the process oils (7) produced in accordance with the invention as a plasticizer or extender oil for natural and synthetic rubber mixtures or thermoplastic elastomers.