CLAIMS

1. A method for purifying lipid material, **c h a r a c t e r i z e d** in that the method comprises the following steps;
   a) storing the lipid material in a settling tank at elevated temperature,
   b) allowing the impurities to settle to the bottom of the settling tank to thereby form an oily sludge phase,
   c) separating the formed oily sludge phase from the rest of the lipid material,
   d) further processing the lipid material
   e) purifying said separated oily sludge phase from impurities, and optionally
   f) returning the purified oil from the purifying step e) to said settling tank,
   wherein the method is **c h a r a c t e r i z e d** in that step e) comprises a heat treatment step comprising the steps of;
      i. heating said oily sludge phase to a temperature of from about 150°C to about 300°C,
      ii. adding polar solvent to said oily sludge phase for removal of impurities from oil phase such as e.g. phosphorus or calcium compounds, and
      iii. separating and recovering purified oil
      and, wherein said elevated temperature in step a) is from about 40°C to about 120°C.

2. The method according to any of the preceding claims, wherein settling in the settling tank takes place without any form of stirring.

3. The method according to any of the preceding claims, wherein the time during which the impurities in the lipid material is allowed to settle to the bottom of the settling tank is from about 5 hours, about 10 hours, about 15 hours, about 1 day, about 2 days, about 3 days, about 4 days, about 5 days.

4. The method according to any of the preceding claims, wherein the lipid material is originating from biological material.

5. The method according to any of the preceding claims, wherein the lipid material is selected from used cooking oil, vegetable oils or any kind or animal fats of any kind or mixtures thereof.

6. The method according to any of the preceding claims, wherein the lipid material is selected from any fossil based oil or product, various oils used and produced by the oil industry, fuel oils and gasoline (petrol), including all used products in either the refining process, or used lubrication oils, waste plastic pyrolysis oils and the likes.

7. The method according to any of the preceding claims, wherein said separation step in step c) comprises phase separation by decantation, whereby the lipid material is separated from the oily sludge.

8. The method according to any of the preceding claims, wherein the heating in step i) is performed during a period of about 5 to about 60 minutes, or about 10 minutes to about 50 minutes, about 15 minutes to about 40 minutes, about 20 minutes to about 30 minutes.

9. The method according to any of the preceding claims, wherein the heating in step i) is about 170°C to about 240°C, preferably about 180°C to about 200°C.

10. The method according to any of the preceding claims, wherein the polar solvent is water, methanol or ethanol or any combination thereof.

11. The method according to any of the preceding claims, wherein the recovered purified oil in step iii) is subjected to a filtration and/or centrifugation and/or mechanical removal to remove impurities present in the sludge.

12. The method according to any of the preceding claims, wherein the separated and recovered purified oil is further subjected to a bleaching step.

13. The method according to any of the preceding claims, wherein impurities are one or more of polyethylene, calcium salts, sodium salts or phosphorous salts.

14. The method according to any of the preceding claims wherein at least about 90 %, or at least about 95%, at least about 97%, at least about 98 %, at least about 99 % of the original content of polyethylene in the lipid material is removed.

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