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FUEL COMPOSITION AND METHOD OF PRODUCING THE SAME

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My invention relates to a fuel composition and method of producing the same. It has to do, more particularly, with a composition which is adapted to be mixed with gasoline, or other products of petroleum distillation, for use in internal combustion engines.

It is well known that, in the operation of an internal combustion engine, there is more or less rapid accumulation of deposit in the combustion chambers of the cylinder, around the valves, upon the spark plugs and, also, upon the heads of the pistons and rings. This deposit is commonly referred to as "carbon", and tends to cause preignition of the fuel charge in the cylinders, resulting in what is commonly called a carbon "knock". This carbon deposit also prevents proper lubrication of the valves, valve stems and cylinder walls, which increases friction in the engine and which tends to cause it to heat up, thereby decreasing the life of the engine.

One of the objects of my invention is to provide a composition which is adapted to be used with gasoline or other substances as a fuel for internal combustion engines which will prevent the deposit of carbon on various parts of the engine and which will also tend to loosen and remove the carbon which is already present on such parts.

Another object of my invention is to provide a composition which is adapted to be used with gasoline or other products of petroleum distillation as a fuel for internal combustion engines which will supply lubrication for the fire zone of the motor.

Another object of my invention is to provide a composition of the type indicated, which will give the gasoline, or other fuel, a higher gravity, thereby causing the engine to start more quickly and, also, producing more power.

The ingredients which I preferably use comprise benzol, trinitrotoluene, orthonitrochlorobenzene, a lubricating oil having a high heat resistance, alphanaphthylamine, acetone and an acetate. These ingredients are suitably combined and are then mixed with gasoline in order to produce the fuel which is adapted to be used in internal combustion engines.

I have found that the following ingredients, when combined in the proportions indicated, produce a gallon of composition having the desired qualities:

	Oz.
Benzol	30
Trinitrotoluene	2
Orthonitrochlorobenzene	8
Technical white oil	30
Castor oil	25
Alphanaphthylamine	16
Acetone	11
Butalacetate	6
	128

Total—one gallon.

The proportions used above are determined by avoirdupois weight. It will be understood that these proportions may be varied greatly but I have found that a variation of twenty per cent (20%) up or down of any of the ingredients will work highly satisfactorily.

It will be understood that it may be possible to use other acetates in lieu of butalacetate and other high heat-resisting lubricating oils in lieu of the technical white oil and the castor oil.

In order to combine the ingredients of my composition, the benzol is first placed in a vat. Then, the trinitrotoluene and orthonitrochlorobenzene are added to the benzol and allowed to dissolve therein. The benzol is constantly agitated, preferably through a centrifugal motion, and heated at a temperature of from 80 to 100 degrees, Fahrenheit. The agitation and the heating of the benzol causes the trinitrotoluene and orthonitrochlorobenzene to dissolve more readily and to remain in solution.

The technical white oil is then placed in another vat and the castor oil is added thereto. This mixture is then agitated and stirred until a perfect emulsion is produced. The solution of benzol, trinitrotoluene and orthonitrochlorobenzene is then pumped into this vat containing the emulsion of oil. The resulting mixture is then agitated vigorously for a period of from thirty minutes to forty-five minutes. This causes a blending of all the substances.

The acetone and butalacetate are then placed in a vat and the alphanapthylamine is added thereto. This mixture is vigorously agitated and heated to a temperature of from 80 to 100 degrees,

Fahrenheit, until the alphanapthylamine has become completely dissolved.

The solution of acetone, butalacetate and alphanapthylamine is then added to the mixture of benzol, trinitrotoluene, orthonitrochlorobenzene, technical white oil and castor oil. The resulting mixture is then vigorously agitated for about thirty minutes. This results in a perfect blend of all the ingredients.

The resulting fluid is then blended with gasoline or other products of petroleum distillation. I have found that one gallon of my composition works satisfactorily with four hundred gallons of gasoline to produce a fuel for internal combustion engines having the desired qualities. However, it will be understood that, if the proportion of my composition to the gasoline is increased, the effectiveness of the fuel will also be increased.

My composition, which is added to the gasoline, is readily soluble therein. It does not interfere in any way with the explosion of the combustible charges in the cylinders. In fact, it tends to increase the combustibility of the charge.

The benzol not only serves as a solvent for the orthonitrochlorobenzene and the trinitrotoluene, but also acts as a solvent for the carbon deposits. The orthonitrochlorobenzene, in conjunction with the benzol, neutralizes and eliminates such carbon deposits. The orthonitrochlorobenzene also increases the end-point of the gasoline and lowers the initial boiling point. This permits quicker starting, increased power, and more mileage. The trinitrotoluene increases the volatility of the gasoline, causing a heavier and more powerful explosion, thereby adding to the efficiency of the gasoline.

The castor oil and the technical white oil serve as a lubricant for the valves, valve stems, cylinder walls and pistons. This reduces friction to a minimum and also reduces the operating temperature of the engine and thereby increases the life of such engine. These oils are not affected by the explosion of the successive charges in the cylinders of the engine and, consequently, perform the lubricating function in the combustion chambers and prevent adherence of the carbon to the various parts of the engine.

The alphanapthylamine increases the antiknock value of the gasoline and aids in neutralizing and eliminating the carbon deposits. The acetone and butalacetate act as a solvent for the alphanapthylamine. The butalacetate also acts as a blending agent and aids in keeping all of the substances in combination.

I have found that, when my composition is added to the gasoline, it acts as a catalytic agent and thereby prevents the formation of carbon. This composition added to the gasoline increases its gravity, causing quicker starting and increased power, which, in turn, results in increased mileage. This composition, when used with gasoline in an internal combustion engine, also materially increases the flexibility in speed of such internal combustion engine.

Having thus described my invention what I claim is:

1. A fuel treating composition comprising benzol, trinitrotoluene, orthonitrochlorobenzene, a high heat resisting lubricating oil, alphanapthylamine, acetone, and an acetate.

2. A fuel treating composition comprising benzol, trinitrotoluene, orthonitrochlorobenzene, a high heat resisting lubricating oil, alphanapthylamine, acetone, and butalacetate.

3. A fuel treating composition comprising benzol, trinitrotoluene, orthonitrochlorobenzene, technical white oil, castor oil, alphanapthylamine, acetone and acetate.

4. A fuel treating composition comprising benzol, trinitrotoluene, orthonitrochlorobenzene, technical white oil, castor oil, alphanapthylamine, acetone and butalacetate.

5. A fuel treating composition comprising per gallon of composition, benzol 30 oz., trinitrotoluene 2 oz., orthonitrochlorobenzene 8 oz., technical white oil 30 oz., castor oil 25 oz., alphanapthylamine 16 oz., acetone 11 oz. and butalacetate 6 oz.

6. A fuel treating composition comprising per gallon of composition, benzol 30 oz., trinitrotoluene 2 oz., orthonitrochlorobenzene 8 oz., technical white oil 30 oz., castor oil 25 oz., alphanapthylamine 16 oz., acetone 11 oz. and butalacetate 6 oz., the proportion of any of said ingredients being variable 20 percent up or down.

7. A fuel treating composition comprising per gallon of composition, benzol 30 oz., trinitrotoluene 2 oz., orthonitrochlorobenzene 8 oz., a high heat resisting lubricating oil 55 oz., alphanapthylamine 16 oz., acetone 11 oz., and an acetate 6 oz.

8. A fuel composition comprising benzol trinitrotoluene, orthonitrochlorobenzene, a high heat resisting lubricating oil, alphanapthylamine, acetone, acetate, and a hydrocarbon motor fuel substance.

9. A fuel composition comprising benzol, trinitrotoluene, orthonitrochlorobenzene, technical white oil, castor oil, alphanapthylamine, acetone, butalacetate, and a hydrocarbon motor fuel substance.

10. A fuel treating composition comprising benzol, trinitrotoluene, orthonitrochlorobenzene, technical white oil, castor oil, alphanapthylamine, acetone, and butalacetate, a gallon of said fuel treating composition being used with 400 gallons of a hydrocarbon motor fuel substance.

11. A fuel treating composition comprising per gallon of composition, benzol 30 oz., trinitrotoluene 2 oz., orthonitrochlorobenzene 8 oz., technical white oil 30 oz., castor oil 25 oz., alphanapthylamine 16 oz., acetone 11 oz., and butalacetate 6 oz., a gallon of said fuel treating composition being used with 400 gallons of a hydrocarbon motor fuel substance.

12. The method of producing a motor fuel treating composition consisting of benzol, trinitrotoluene, orthonitrochlorobenzene, a high heat resisting lubricating oil, alphanapthylamine, acetone and an acetate, which comprises placing the trinitrotoluene and orthonitrochlorobenzene in solution in the benzol, mixing the lubricating oil with the solution, mixing the acetone and acetate and dissolving the alphanapthylamine therein, and mixing said last-named solution with the mixture comprising said first-named solution and said lubricating oil.

13. The method of producing a motor fuel treating composition consisting of benzol, trinitrotoluene, orthonitrochlorobenzene, technical white oil, castor oil, alphanapthylamine, acetone, and butalacetate, which comprises placing the trinitrotoluene and orthonitrochlorobenzene in solution in the benzol, producing an emulsion of the technical white oil and the castor oil, mixing the emulsion with the solution, mixing the acetone and butalacetate and dissolving the alpha-

napthylamine therein, and mixing said last-named solution with the mixture comprising said first-named solution and said emulsion.

14. The method of producing a motor fuel treating composition consisting of benzol, trinitrotoluene, orthonitrochlorobenzene, technical white oil, castor oil, alphanaphthylamine, acetone and butalacetate, which comprises placing the trinitrotoluene and orthonitrochlorobenzene in the benzol, agitating and heating the benzol until the trinitrotoluene and orthonitrochlorobenzene are dissolved therein, mixing the technical white oil and the castor oil, agitating and stirring said mixture until a perfect emulsion is produced, mixing said solution and said emulsion, agitating said mixture, mixing the acetone and butalacetate, placing the alphanapthylamine in said mixture and agitating and heating until the alphanapthylamine is dissolved, mixing said last-named solution with the mixture consisting of said first-named solution and said emulsion, and agitating the resulting mixture.

15. The method of producing a motor fuel treating composition consisting of benzol, trinitrotoluene. orthonitrochlorobenzene, technical white oil, castor oil, alphanapthylamine, acetone and butalacetate, which comprises placing the trinitrotoluene and orthonitrochlorobenzene in the benzol, agitating and heating the benzol at a temperature of from 80 to 100 degrees Fahrenheit until the trintrotoluene and orthonitrochlorobenzene are dissolved therein, mixing the technical white oil and the castor oil, agitating and stirring said mixture until a perfect emulsion is produced, mixing said solution and said emulsion, agitating said mixture, mixing the acetone and butalacetate, placing the alphanapthylamine in said mixture and agitating and heating at a temperature of from 80 to 100 degrees Fahrenheit until the alphanapthylamine is dissolved, mixing said last-named solution with the mixture consisting of said first-named solution and said emulsion, and agitating the resulting mixture.

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