Petroleum Products

11th Automobile Engineering
11 tJ mbgggil jhd;aq;fp Ch;j; nghwa;ay;

myF 3	vh;nghUl;fSk; mtw;wd; tiffSk;

myF 3

vh;nghUl;fSk; mtw;wd; tiffSk;

mw;Kfk;

ek cly edF nraygl NtzLkhdhy ehk rjJss j;l› j;ut czTfisAk Rjjkhd fhwiwAk vLjJfNfhsf;Nwhk mJ NghdW xU thfdjj;d vd[;d edF ,aqf NtzLnkd;y mjwF vh;nghUs NjitggLf;wJ. vej xU vh;nghUSk fhwWld fyeJ vh;ffggLk NghJ mj;y ,UeJ mj;fkhd ntgg Mwwy ntsggLf;wJ. vd[;dhdJ ,ej ntgg Mwwiy ,aff Mwwyhf khww;f nfhLjJ thfdjij ,OggjwFj Njitahd ,O t;iriaf nfhLff;wJ.

vh;nghUs;fs;

vh;nghUsfs ekfFj j;l› j;ut› thA (Solid, Liquid, Gas) Mf;a %dW e;iyfs;y f;ilff;dwd.

j;le;iy vh;nghUs;

j;le;iy vh;nghUs vdgJ gy t;jkhd j;lgnghUlfis vh;jJ mjd %yk ntsggLk ntggjijf nfhzL Mwwyhf khww;jjUk gy tifg nghUlfisf Fw;ff;wJ. j;le;iy vh;nghUs vdgJ G+k;ffba;y ,UeJ Njhzb vLffggLk fh› e;yffh; Nghdwtwiwf Fw;fFk. Mukgfhy euht; vd[;dfs;Yk nfhj;fydfs;Yk (Boiler) j;l e;iy vh;nghUshd e;yffh; gadgLjjggllJ. j;l e;iy vh;nghUsfs midjJk Fiwej msT Mwwiy ntsggLjJtJld mj;f msT rhkgy› Gif Nghdwtwiw ntsggLjJf;wJ. ,jdhy VwgLk eilKiw r;ffyfshy jwfhy MlNlh nkhigy thfd vd[;dfs;y j;le;iy vh;NghUsfs Kww;Yk gadgLjjggLtj;yiy.

திட எரிபொருள் திரவ எரிபொருள் வாயு எரிபொருள்

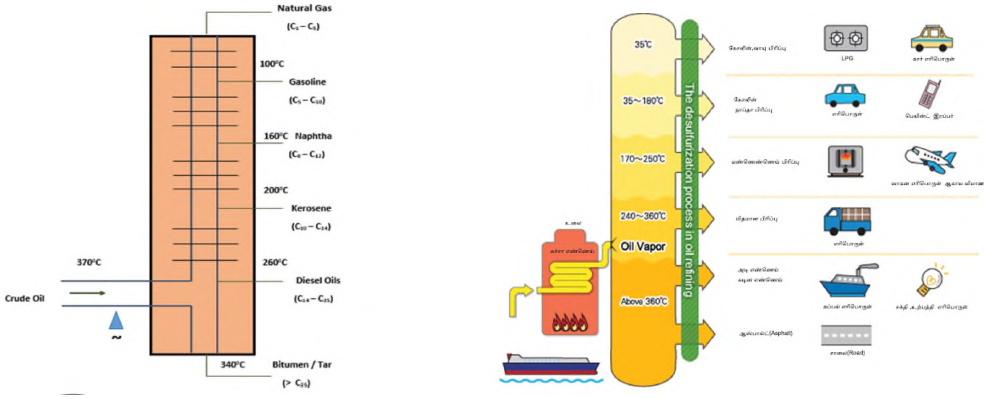
jput epiy vhpnghUs;fs;

jwfhy cs vhp vd[pdfspy nglNuhy Bry Mfpa jput epiy vhpnghUsfs klLk mjpf mstpy gadgLjjggLfpdwd. jputepiy vhpnghUsfs midjJk Gkpffbapy ,UeJ Njhzb vLffggLk fdpk vznzapy ,UeJ vLffggLfpwJ. jputepiy vhpnghUis thfdqfspy Nrkpggj vspjhf cssjhYk> mjpf ntgg MwwiyAk> Fiwthd fopT thAffisj jUtjhy jwfhy MlNlhnkhigy thfd vd[pdfspy nglNuhy> Bry Mfpa ,uzl tif jput vhpnghUlfs klLk mjpf mstpy gadgLjjggLfpwJ.

nglNuhy; kwWk; mjd; gzGfs;:

Gkpffbapy gy MzL fhykhf GijeJ fplej jhtuqfs kwWk tpyqfpdqfs> mOjjk kwWk ntggjjpy khWjYfF clglL vhpnghUs frrh vznzapyUeJ tbfllggLtjpd %yk jput vhpnghUsfs midjJk fpilffpdwd. Gkpffbapy ,UeJ fpilfFk fdpk vznzapyUeJ gyNtW ntgg epiyfspy gyNtW jdikAila nghUlfs tbjJ vLffggLfpdwd. Kjypy 40°C ntgg epiyapy LPG (Liquid Petroleum Gas)-k> 40°C Kjy 200°C ntggepiyapy nglNuhYk> 250°C Kjy 300°C tiu BrYk> ,Wjpahf 350°C- fF Nky jhh Nghdw nghUlfs ntspggLfpdwd. vilapd mbggilapy nglNuhypy fyeJss Ntjpgnghulfspd msT mlltizapy cssJ.

Element		Percentage by weight
fhhgd	Carbon	79.5 - 87.1
i`lu[d	Hydrogen	11.5 - 14.8
fejfk	Sulphur	0.1 - 3.5
Mf]p[d	Oxygen	0.1 - 0.3
ielu[d	Nitrogen	0.1 - 2.0



nglNuhy; kwWk; mjd; gzGfs; gpd;tUkhW:

nglNuhypy fhhgd 79.5 % Kjy 87.1% -k> i`lu[d 11.5% Kjy 14.8% -k rygh 0.1% Kjy 3.5% -k> Mfp[d kwWk ielu[d 0.1% Kjy 0.3% vdw

tpfjjjy fyeJssd. ,jy ,Uff Ntzba rwgG ,ayGfs kwWk gzGfs gdtUkhW:

1. Mtpahjy (Evaporation): jdik vdgJ Fwpggpll ntggepiyapy nglNuhy jput epiyapy ,UeJ Mtp epiyia miltij Mtpahjy vdfpNwhk. nglNuhy Fiwej ntggepiyapy MtpahFk jdik ngwwpUff NtzLk.
2. xgglhjjp (Specific Gravity): vdgJ nglNuhypd mlhjjp 0.70 Kjy 0.78 tiu ,Uff NtzLk.
3. fNyhhpgpf kjpgG (Calorific Value) -1 fpNyh fpuhk epiwAss vhpnghUis vhpfFkNghJ mjpy ,UeJ ntspggLk ntggjjpd msT fNyhhpgpf kjpgG vd mwpaggLfpwJ. nglNuhypd fNyhhpgpf kjpgG 45.8 MJ/kg Mf ,Uff NtzLk.
4. ntbgG epiy kwWk vhepiy (Flash and Fire Point) ntbgGepiy kwWk vhepiy vdgJ vhpnghUshdJ ntggepiy mjpfhpfFkNghJ ntbjJ mjpT czlhfFk ,ej ntgg epiyfF ntbgG epiy (Flash Point) vdW ngah. njhlheJ NkYk 15°C Kjy 20°C tiu ntggk mjpfhpfFkNghJ njhlheJ rpy tpdhbfspy vhpAk epiyia mileJ tpLk. ,ej ntgg epiyfF (Fire Point) vdW ngah. 10% nglNuhy Kjypy vhpaf $bathWk kjKss 90% nglNuhy gbggbahf vhpaf $bathWk ,UggJ mtrpak.
5. ghFj jdik (Viscoisity) :- jputk glheJ nryy VwgLk vjphgGfF ghFjjdik Fiwthf ,Uff NtzLk.
6. rygh pd msT (Sulphur Content) – rygh mjpfkhfg nglNuhypy fyeJ ,Uejhy mJ cNyhfg ghfqfis tpiuthf mhpjJ tpLk vd[pd ,affjjpd NghJ rygh Mfrp[Dld fyeJ ryghil Mfirlhf khwp rygAhf Mrplil czlhfFfpwJ. vdNt NglNuhypy fyeJss rygh pd msT 0.1% -l tpl Fiwthf ,Uejhy rpwgghdJ.
7. <uggjk kwWk togbT (Moisture and Sediment Content)– nglNuhy J}Rfs mwwjhfTk> ehgbtk mwwjhfTk ,Uff NtzLk.
8. MfNld vz - nglNuhy vd[pdpy ,b mjphTfspd (Knocking) jdikia vjphfFk jpwd MfNld vz %yk FwpffggLfpwJ. vhpnghUspy Iso–Octane (C_8H_{18})-k> Normal Heptane (C_7H_{16})-k fyeJss fyitapd rjtpfpjk MfNld vz vdggLk. jwNghJ ekfFf fpilfFk nglNuhypy vjjid rjtpfpjk lNrh MfNld fyeJssJ vdgijf FwpfFk vz MFk. mJ mjpfkhf ,Uejhy mjpf mOjJk tpfpjk cila vd[pdpy mjid gadgLjj NtzLk vdW mwpayhk. ,J 85-90 -fF ,ilggll mstpy ,UfFk.

nglNuhypak; (Petroleum)

uhghl; mf];l]; nr];Nuhg; vdw mnkhpff Ntjpayhsh [dthp 9 -Mk ehs 1837 – MzL gpwejth. ,th nglNuhypak n[yypia fzL gpbjJ mjid jd epWtdjjpy cwgjjp nraJ reijg gLjjpdhh. NkYk ,th Ntjpapay gFgghatpd %yk fpNuhrpd vdw vzizia gphpjnjLjjhh.

,th ngdrpNyhdpahtpd ill]tpyNyapy nglNuhypak fzLgpbffg gllJld jdJ Ntiyia Kbffhky kzLk njhlhejhh. mjd %yk Gjpa vhpnghUis fzL gpbff jjJ]tpy NyTfF (Titnsville) gazpjjhh. ,ggazjjpd NghJ ,th nglNuhypak n[yypia fzL gpbjJ mjwF th]iyd vd ngahpllhh. 1875 ,y mth nr]Nuhg cwgjjp epWtdjij epWtdhh ,eepWtdk 1955 MzL Kdddp cwgjjpahsuhd nr]gpNuh ghzl] vdgtuhy ftdpffgglIJ 1872 ,y nglNuhy n[yypia (A.v] fhgGhpik 127>568) cUthfFk nray

KiwfF Chesbrough fhgGhpik ngwwhh.

Brypd; gzGfs;

frrh vznzia 250°C Kjy 300°C-y Bry tbffggLfpwJ. Brypy 85% fhhgd› 12% i`lu[d› 3%kwwit fyeJssd. Bry gpdtUk rpwgG ,ayGfisAk› gzGfisAk nfhzbUff NtzLk. Bry vd[pdpd Mwwy nglNuhy vd[pid tpl mjpfkhf ,UfFk. Bry vd[pdpd Mwwy nglNuhy vd[pidf fhlbYk 40% mjpfkhf ,UejhYk xNu khjphpahd ntspaLjpwd ,UejhYk› ,J fhh› buf uapyNt vd[pd Nghdwtwwpy gadgLjjggLfpwJ. ,jpy ,Uff Ntzba Kffpa rpwgGg gzGfs gpdtUkhW:

1. Mtpahjy jdik (Volatility):- Mtpahjy jdik vdgJ nglNuhiy tpl Brypy Fiwthf ,UfFk. ,J Brypd xgglhjjp vhpAlLk ntggepiy› ntbgGepiy› ghFjjdik kwWk rlNld vz Mfpa midjjpYk Kffpa fhuzkhf tpsqFfpwJ. Mtpahjy jdik mjpfkhf ,Uejhy fhwWf Fkpofs %yk milgig VwgLjJk› Mtpahjy jdik Fiwthf ,Uejhy vhpjy KOikahf eilngwhJ NkYk fhpggbtjij mjpfkhf czlhfFk.
2. xgglhjjp (Specific Gravity): xgglhjjp Brypd mlhjjpapd msT nglNuhypd mlhjjpia tpl mjpfk. ,J 0.82 Kjy 0.92 tiu ,Uff NtzLk.
3. fNyhhpgpf kjpgG (Calorific Value):- xU fpNyhfpuhk epiwAss vhpnghUis vhpfFkNghJ mjpy ,UeJ ntspggLk ntggjjpd msT fNyhhpgpf kjpgG vd mwpaggLfpwJ. nglNuhiytpl Brypd fNyhhpgpf kjpgG FiwT. mjhtJ 45 MJ/kg Mf ,Uff NtzLk.
4. ghFjjdik (Viscosity) jputk glheJ nryy VwgLk vjphggpwF ghFjdik vdWngah ntggepiy mjpfhpjjhy ghFjjdik FiwAk. ghFjjdik mjpfkhf ,Uejhy Bry njspfFk Kiwapy mOjjjij mjpfhpfFk mJ Briy Mtpahffp njspfFk jdikia FiwjJ tpLk ghFjjdik ,dn[flhpd topahf Bry rpWJfsfshf njspfFk mstpwF Fiwthf ,Uff NtzLk. NkYk vhpnghUs mOjJk gkgpy mjpf cuhaT Vwglhky jhdhfNt catpLk mstpwF jFejthW mjpfkhf ,UffNtzLk NkYk gkG gpsQrhpd topahfTk› Bry ,dn[flhpd topahfTk frpT VwgLjjhj mstpwF ghFjjdik nfhzbUff NtzLk vhpnghUs Jspfspd msT vhpnghUspd ghFjjdikia nghUjJ miktjhy njspfFk Kiw njspffggLk msT Mfpaitak vhpnghUspd caTjjdikiag nghUjNj mikfpdwd.
5. rygh pd msT (Sulphur Content):– vhpnghUspy fyeJss rygh MdJ ,aejpujpy css gp]ld› gp]ldtisaqfs› thyTfs› rpypzlhiydhfs Nghdw ghfqfspy mhpgigAk› NjakhdjijAk VwgLjJfpdwd. NkYk vhpnghUspy rygh mjpfkhf ,Uejhy caT vznza kwWk vznza tbflb Mfpatwiw mbffb khww Ntzba epiy VwgLfpwJ. rygh il MfirL kwWk fhwwpy fyeJss <uggjk Mfpatwwhy cNyhf ghfqfs tpiuthf mhpffggLfpwJ. vdNt Brypy fyeJss rygh pd msT 0.5% l tpl Fiwthf ,Uff NtzLk.
6. <uggjk kwWk togbT (Moisture and Sediment Content):- Bry kpfTk J}aikahf ,Uff NtzbaJ mtrpak Brypy J}rpfs kwWk frLfs fyejpUejhy mJ vhpnghUs gkG kwWk ,dn[flh Mfpatwwpd

nrayjwid ghjfFk› Bryy fyeJss <uggjjjdhy ,dn[flhy css ghfqfsy mhgig VwgLjj nray ,off nraJtLk.

7. rlNld vz (Cetane Number):- Bryd jujij FwfFk vz rlNld vz vdggLk Bryd jhkjkhd vhAlL eiyia mweJ nfhstjwF rlNld vz cjTfwJ rlNld vz mjfkhf ,Uejhy vhjy tiuthfTk nkdikahfTk eilngWtJld vd[d vsjhf]lhhl nraaTk cjTfwJ. Mygh kjijy ehgjyd kwWk rlNld fyej fyitad fd msty rlNldd rjtfjk rlNld vz vdggLk. ,J 45 Kjy 50 fFs ,Uff NtzLk.

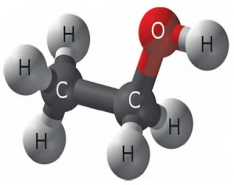
khwW vhnghUs; (Alternative Fuels)

nglNuhy› Bry vhnghUsfis jthjJ gadgLk khwW vhnghUlfs kuGrhuh vhnghUs vd mioffggLfwJ. mit gy tifahd nghUsfis nfhzL gadgLjjggLk vhnghUlfs MFk ekfF njhej khwW vhnghUlfshtd cah Bry› (Bio Diesel) cah Myf`hy (Bio Alcohol) (nkjjdhy› vjjdhy› gAlldhy)› Ntjgnghuis kdrhukhf khww Nrkjj gadgLk rhjdk kdfyk MFk. vhnghUs myyhj kjNjd› i`lu[d ,awif thA jhtu vznza› GNuhgNgd Kjyad MFk.

jutepiy khwW vhnghUs; (Alternative Liquid Fuels)

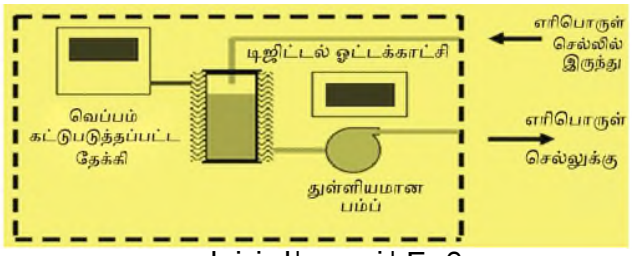
My;f`hy; (Alcohol)

jutepiyay rwej khwW vhnghUshf Myf`hy tsqFfwJ. ,awifahf ,J filggJld nrawif Kiwakyk ,jidj jahhff KbfwJ. nkjjdhy (nkjjy Myf`hy) kwWk vjjdhy (vjjy Myf`hy) Mfa ,uzLk rwej jutepiy khwW vhnghUshf tsqFfwJ. Vnddy ,twwd MfNld vz mjfkhf cssJ. rygh Fiwthd msty fyeJssJ. NkYk Fiwthd i`lNuh fhhgd fot thAffis ntsNawWfwJ.



nkjjdhy; (Methanol)

nkjjdhYfF kuCuy (Wood Alcohol) vdw kWngaUk czL. nglNuhYld nkjjdhy xU Fwggll tfjjjy fyeJ gy MzLfshf› vd[dfsy gadgLjjgglL tUfwJ M85 (85% nkjjdhy+15% nglNuhy) kwWk M10 (10% nkjjdhy+90% Nf]hyd) Mfa ,uzL fyitfs vd[dfsy gadgLjjgglL rwgghd gydfisj jUfwJ. ,J mjf MfNld vzizf nfhzlJ nglNuhYld xggLk NghJ vhtjhy VwgLk mghak Fiwthf ,UfFk kwWk jahhggJ vsJ.



nkjjdhy njhFgG

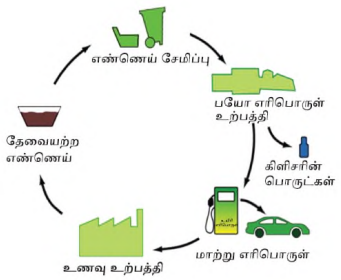
vj;jdhy; (Ethanol):

vjjdhiy vjpy Myf`hy vdWk mioffpdwdh. vjjdhy kffhrNrhsk> ghhypmyyJ NfhJik kwWk rhffiu fopT Mfpatwwpd Cuyfspy ,UeJ gphpjnjLjjy %yk jahhpffggLfpwJ. vjjdhy nglNuhYld fyeJ mjd MfNld vzzpd msit mjpfggLjjTk kwWk ntspaLjpwid NkkgLjjTk nrafpwJ. E85 (85% vjjdhy + 15% nglNuhy)> E10 (10% vjjdhy + 90 nglNuhy) Mfpa ,uzL fyitfSk vhpnghUshf gadgLjJtjhy rpwgghd gydfisj jUfpwJ.

gNahBry; (Bio-Diesel) :

gNahBry (Bio-Diesel) vdgJ rhjhuz Brypd $lLg nghUshFk. ,J BrYfF khwwhfg gadgLjjggLfpwJ. ,J jhtu vzizg kwWk tpyqF nfhOgGfspypUeJ jahhpffggLfpwJ. B20 tif Bio-Diesel (20% Bio Diesel + 80% Standard Diesel) mjpfkhfg gadgLfpwJ. ,jDila edikfs gpdtUkhW.

1. jhtuk kwWk tpyqFfspypUeJ jahhpffggLtjhy njhlheJ fpilffpwJ.
2. jahhpggJk nfhzL nrytJk vspikahdJ.
3. Gif msT FiwT
4. catpLtjwFk gadgLfpwJ.



gNah Bry jahhpfFk Kiw

thAepiy vhpnghUs; (Gaseous Fuels)

thAepiy vhpnghUs jhkjkdwp cldbahff fhwWld fyeJ clnrYjjggLtjhy csnshp vd[pdfspd ,affjjpwF ,J rpwej khwW vhpnghUshff fUjggLfpwJ. jwNghJ gadghlby css khwW vhpnghUsfs gpdtUkhW.

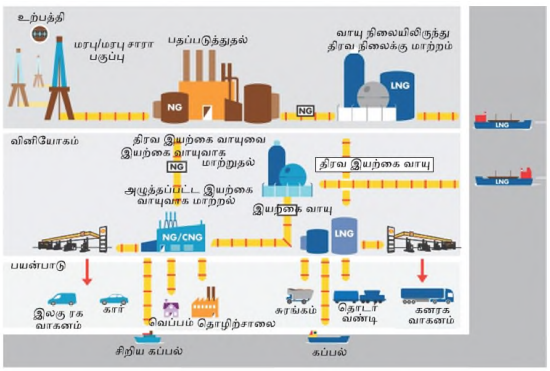
mOj;jggl;l nglNuhy; thA epiy vhpnghUs; LPG (Liquified Petroleum Gas):

nglNuhypafrrh nghUlfis tbjJ vLfFk NghJ ntspggLk gyNtW nghUlfspy LPG mOjjggll nglNuhy thAepiy vhpnghUs kpfTk Kffpakhdjhfk. rikay vhpthAthf mjpfkhfg gadghlby css ,J jwNghJ jhdpaqfp thfdqfspy khwW vhpnghUshf gadgLjjggLfpwJ. ,jpy fyeJ css gpA+lNld› GNuhgNgd Mfpait vd[pdpy vhpnghUshfg gadgLfpwJ. LPG-ia jput epiyapy mjpf mOjjjjpy (100 P.S.I myyJ 680 atm) rpwgG rpypzlhfspy Nrkpffgg lLg gadgLjjggLfpwJ. ,J fhh› g]› buf Nghdw thfdqfspy gadgLjjggLfpwJ. ,jd edikfs gpdtUkhW:

1. nglNuhiy tplf Fiwthd fhhgd fyeJssJ. vdNt Fiwthd fhhgd Nkhdhfiril ,J ntspNawWfpwJ.
2. vyyh ntgg epiyfspYk fhwWld vspjhff fyffpwJ.
3. vyyhr rpypzlhfSfFk xNu jukhd fyit nrYjjggLfpwJ.
4. nglNuhiy tpl ,jd ,affr nryT ruhrhpahf 50% FiwfpwJ.
5. ,jDila MfNld kjpgG mjpfkhf cssJ.
6. vd[pd ezl ehlfs cioffpwJ.

jputepiy ,awif vhpthA (Liquified Natural Gas):

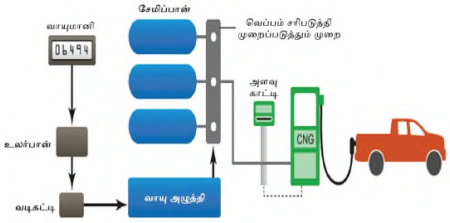
jputepiy ,awif vhpthA vdgJ ,awif vhpthAit ghpjnjLjJ jdp rpwgG Fspfhrr;A+lLjy Kiwapy - 161˚C epiyapy jputkhf khwwp gadgLjjggLk vhpnghUshFk. ,ej epiyapy css ,awif vhpthAit mjd nfhjpepiyfF fNo Fspfhrr;A+lLtjd %yk mjpYss mjpfggbahd $lLg nghUsfis ghpjnjLff KbAk. mtthW ghpjnjLjj gpdG kjKss ,awif VhpthAtpy 98% kjNjDk rpwjsT i`lNuh fhhgDk ,UfFk. jput epiyapy ,awif vhpthAffs ntgg kjpgG (Calorific Value) 48 MJ/Kg MfTk› mjd MfNld vz 110 vdWk ,UfFk. vdNt mij Nrkpggjwf fLqFspht pay njhlb (Cryogenic Tank) Njitggltjhyk› ,jd jahhpgG nryT mjpfkhf› ,UggjhYk. ,JFiwej msNt tpahghujjpwfhf gadgLjjggLfpwJ.



mOj;jggl;l ,awif vhpthA CNG (Compressed Natural Gas)

,JTk G+kpffbapy ,UeJ fpilffpwJ. ,jpy 95% kjNjd thA fyeJssJ. kjKss 5%-y gpA+lNld› GNuhgNgd› <jNjd› ehggbtqfs Mfpait fyeJssd. MlNlh nkhigy thfdqfspy Nrkpjf nfhzL nrytjwF trjpahf ,J mjpf mOjjjjpwF clgLjjgglLr rypzlhfspy milffggLfpwJ. vdNt ,J mOjjggll ,awif thA vdf $wggLfpwJ. ,jpYss edikfs gpdtUkhW:

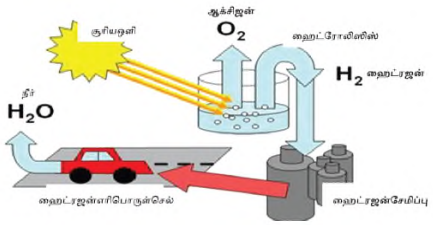
1. MfNld vz mjpfk.
2. fopT thAffspy 25% CO_2 FiwT
3. vspjhff fpilggjhy tbflLk Kiw vspjhfpwJ.
4. ,affr nryT kpfTk FiwT.
5. nglNuhy kwWk Bry vd[pid tpl fopT thAffspd erRj jdik FiwT. mOjjggll ,awif thA epugGk $lk fhllgglLssJ.



mOjjggll ,awif thA epugGk $lk

i`lu[d; (Hydrogen):

,J jzzh (H_2O) i`lNuh fhhgdfs (mjhtJ kjNjd $CH_4$) kwWk ,awif nghUsfspy ,UeJ kpfjjpwikahf gphpjnjLffgglL i`lNuh fhhgid vhp nghUshf gadgLjJtJ kpfTk rthyhd xdwhf cssJ. kpdrhujjpd %yk ,aqFk kpdrhu thfdqfspy kpdfyjjpy VwgLk Ntjptpidapd fhuzkhf erRffopTfs KOikahf ,yiy. ,J Nghdw thfdqfspYk i`lu[d gadgLjjggLfpwJ. vdNt RwWgGwjij J}aikahf itggjwF i`lu[d cjtpahf cssJ. i`lu[d jahhpjjy kwWk epugGk $lk.



i`lu[d jahhpjjy kwWk epwgGk $lk

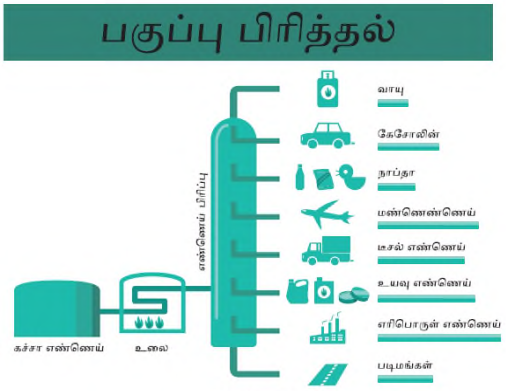
vhpnghUspd; xggL (Comparison of Various Fuels):

<ak fyffgglhj nglNuhy› (Speed Petrol White Petrol, Speed Diesel or Premium Diesel) vdg gy tpjkhd vhp nghUlfs fpilffpdwd. Mukg fhyqfspy nglNuhYld TEL (Tetra Ethyl Lead) fyeJ mjd jpwid (MfNld vziz) mjpfhpfFk toffk ,UejJ. Mdhy TEL – MdJ fhwW khR miltjwfhd Kjdikahd fhuzk vdW GhpeJ nfhzl gpwF mJ epWjjggLL mjjifa nglNuhy <ak fyffhj nglNuhy myyJ rhjhuzg nglNuhy vd

mioffggLfwJ. rhjhuz nglNuhyid jwid mjfhff jFej $lLg nghUlfis (Additives) mjDld NrhjJ mjjifa nglNuhy Speed Petrol myyJ Premium Petrol vd mioffggLfwJ. ,jDila MfNld vz mjfkhf ,UfFk. ,NjNghdW ry $lLgnghUlfis BrYld NrhjJj juk cahjjggll Bry (Speed Diesel myyJ Premium Diesel) vdW mioffggLfwJ. mjjifa Bryid rlNld vz mjfkhf ,UfFk.

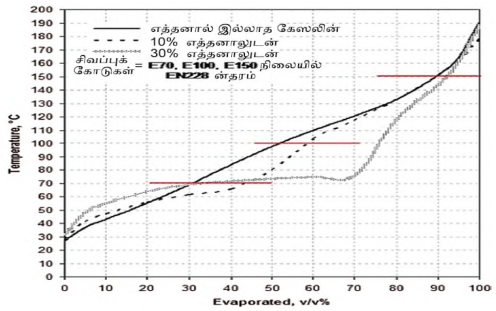
vhnghUs; gFgG tisT tiuglk; (Distillation Curve):

gyNtW ntgg eiyfsiy nglNuhy kwWk Bry vjjid rjtfpjk Mtiahfwj vdw jdikia mweJ nfhstjwF tbflLjy eiyaid tisT tiuglk (Distillation Curve) gadgLfwJ. nglNuhy MdJ gytifahd i`lNuhfhhgdfshy Md fyit mtwwy xU ry Fiwej ntgg eiyaiNyNa Mtiahf khwf fhwWld fyffwJ. ,jdhy vd[id ,aqfif nfhzbUfFkNghJ ,UfFk ntJntgghd ntgg



படம் 3.4
எரிபொருள் பகுப்பு முறை

eiyaiy Mtiahfi vd[id jwkgl ,aqf cjTfwJ. xU ry i`lNuhfhhgdfs vd[idDfFs riW Jsifshfr nrdwileJ gwF vheJ rfjia ntsitLfwJ. ,jid Distillation Curve njsithff fhlLfwJ. kifTk Fshej fhyeiy nfhzl ehLfsiy Fshfhyjjiyk Nfhilffhyjjiyk nttNtW fyitfshy ,ejg nglNuhy jahhffgglL vd[id jwkgl ,aqf totif nraaggLfwJ. vhnghUs gFgG Kiw kwWk vhnghUs gFgG tiuT tiuglk fhlLfwJ.



tbflb ghjjy eiyaid tisT tiuglk -
(% Mtiahjy VS ntggeiy °C)