

Lecture - 7

Naphtha

- It is a light distillate obtained from refining of crude oil.
- The boiling ranges of various types of naphtha produced include C_5 85°C , C_5 110°C , C_5 140°C , C_5 160°C , C_5 175°C , C_5 200°C .
- Naphtha are usually classified as light , intermediate and heavy naphthas .
- If the naphtha fraction boils below 100°C it is light naphtha if greater than 150°C it is heavy fraction and intermediate if boils between 100- 150°C.

Manufacture of naphtha

- Produced by atmospheric distillation of crude oil . This is called straight run naphtha..
- Processes such as visbreaking , fluid catalytic cracking , hydrocracking , coking also produce naphtha. These are called cracked naphtha .

Compositions of naphtha

- Naphtha is complex mixture of hydrocarbons. Its compositions depends on the crude oil processed and conversion process employed.
- Two types of analysis is used-
- Hydrocarbon type analysis – it determines percentage of paraffins olefins, naphthenes and aromatics.
- Individual component wise analysis.

Uses of naphtha

- **Light naphtha**
- Gas making gasoline
- Special gasoline
- **Intermediate naphtha**
- Aviation gasoline
- Motor gasoline
- Marine gasoline
- Benzene toluene xylene
- Ammonia

- **Heavy naphtha**
- VM&P
- Thinners for paints

- Used for fertilizer feedstock.

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Thank you