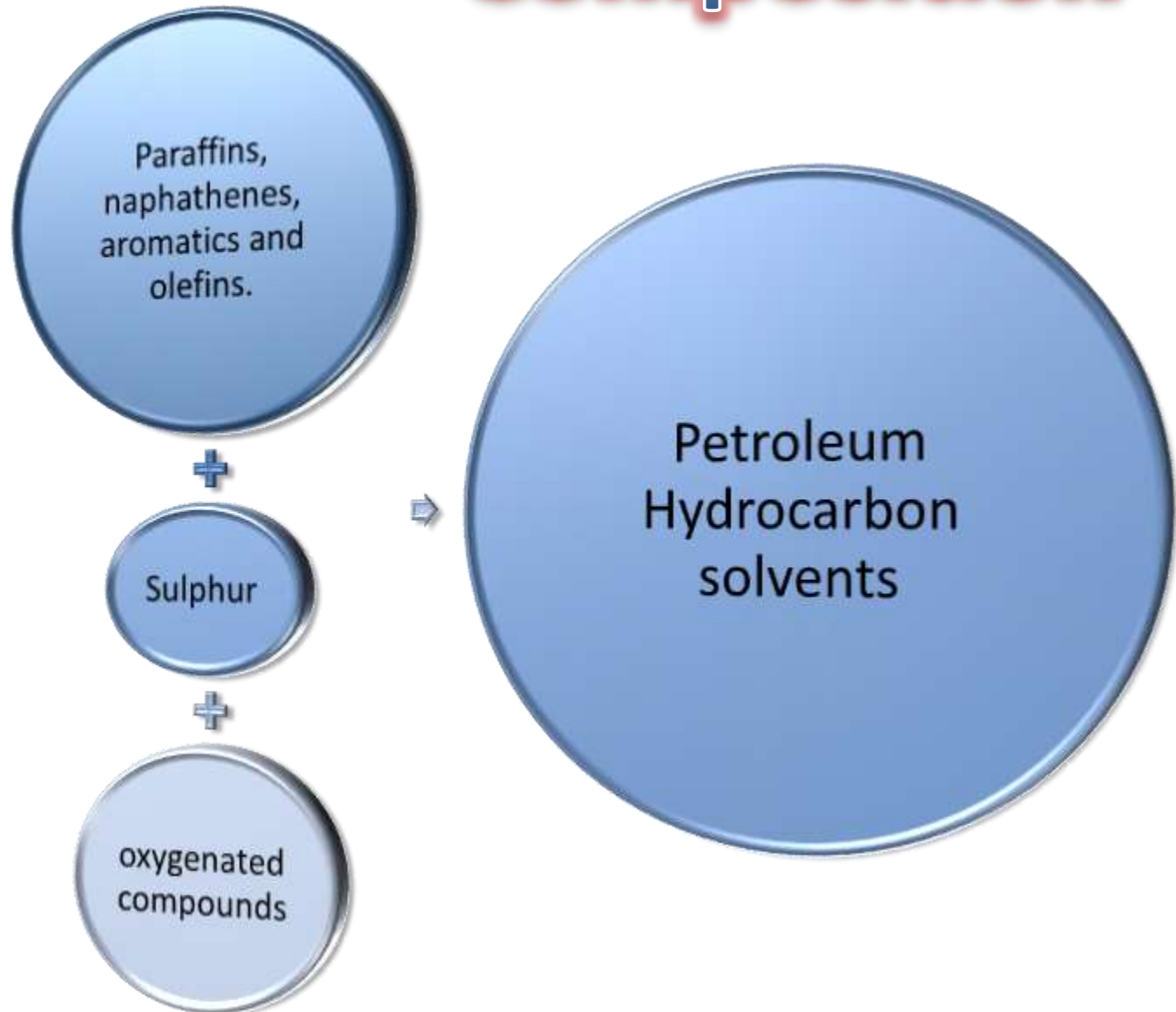


# Lecture - 12

**Petroleum  
Hydrocarbon  
Solvents**

- Hydrocarbon solvents are just one, relatively small, group of products that are the output of petroleum refineries.
- Like the various fuel products derived from crude petroleum (gasoline, kerosene, fuel oil, etc.) most hydrocarbon solvents are complex mixtures rather than specific individual compounds.
- Primary constituents in oil, gasoline, diesel, and a variety of solvents and penetrating oils.

# Composition



# Types Of Hydrocarbon Solvents

## SBP's (Special Boiling Point spirits

- Temperature Range 45-160 C
- Consists of hexane ,isohexane, heptanes etc

## Isoparaffiic solvents

- Mfg by lower MW hydrocarbons
- Usually Odorless

## Aromatic Solvents

- Available in full range
- Toluene and xylenes

## White Spirits

- 150-220 C boiling range
- Mineral turpentine, mineral spirits and Stoddard solvents

## De-Aromatized solvents

- Lower odour
- Essentially benzene free
- 150-250 C BP range

# Manufacturing Of PHS

Distillation

Chemical  
Conversion Or  
separation

Treatment

# PROPERTIES

Able to remove one substance from another

To cause a solid or viscous material to become fluid enough for use

To permit its removal by evaporation

Must be inert to the material it dissolves

USES  
OF  
PETROLEUM  
HYDROCARBON  
SOLVENTS



# SBP's

Low Aromatics

Degreasing ,paints  
Lacquers printing inks

High  
Aromatics

Lube oil de-waxing,  
rubber solutions

# Pure Aromatics

Benzene

Alcohol  
dehydration, lube  
oil de-waxing

Toluene

Rubber solutions,  
paints

Xylenes

Alkyl resins,  
insecticides

# White spirits

Low Aromatics

Degreasing ,paints,  
dry cleaning,  
Lacquers printing inks

High  
Aromatics

Agriculture  
formulation, paints,  
lacquers

# Kerosene solvents

Low Aromatics

Degreasing , catalyst in  
polyolefin production,  
insecticides

High  
Aromatics

Degreasing, rubber  
reclaiming, paints, inks

Thank You