Wood Chemical Composition & Products

Forest Residues
Urban Wood Waste

NARA Feedstock

Cellulose
- 41-49%
  - Cellulosic fibers
  - Glucose

Hemicellulose
- 17-25%
  - Glucose
  - Mannose
  - Galactose
  - Xylose
  - Arabinose

Lignin
- 25-30%
  - Paracoumaryl alcohol
  - Coniferyl alcohol
  - Sinapyl alcohol

Extractives
- 2-5%
  - Terpenes
  - Fatty acids
  - Phenolics
  - Alkanes

Derived Products
- Paper
- Textile fiber
- Bioplastic Additive
- Adhesive
- Emulsifier in food industry
- Solid fuel
- Food flavoring
- Binding and dispersing agent
- Soil conditioner
- Activated carbon
- Road dust control

Commercial Uses
- Liquid Fuels-Biojet
- Specialty chemicals
- Flavor and fragrance
- Solvent
- Medicinal
- Water proofing

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