

## Product Chemical Data Sheet

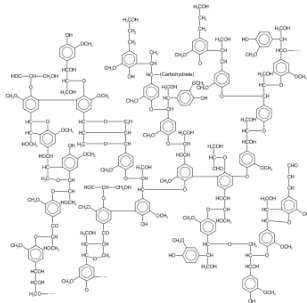
Product: Lignin

**Product Description:** Lignin is a complex polymeric chemical compound derived from renewable resources. It is an important structural compound in biomass such as wood. Once liberated, the cross-linked phenolic polymers that formulate lignin can be used in a variety of products across multiple industries.

**CAS (Chemical Abstracts Service) Number:** 9005-53-2

**Chemical Formula:**  $C_9H_{10}O_2, C_{10}H_{12}O_3, C_{11}H_{14}O_4$

**Chemical Structure:**



**Product Specifications:**

<u>Test</u>	<u>Specification</u>
Pure lignin	86.1%
Ash	1.7%
Extractives	0.2%
Sulfur	0.2%

**Product Uses:**

- Foams: polyurethanes, expanded polystyrene, starch
- Biopolymers: resins, polyols, binders
- Packaging materials: fillers, biodegradable components
- Activated carbon: municipal water purification