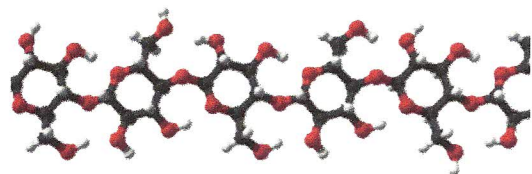
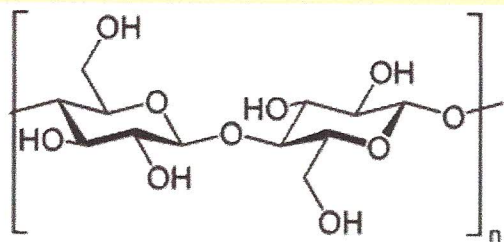


Cellulose – Organic and Naturally Biodegradable

From Wikipedia.com, the free encyclopedia

Cellulose^[1]



Identifiers

CAS number	9004-34-6 ✓
EC-number	232-674-9

Properties

Molecular formula	$(C_6H_{10}O_5)_n$
Appearance	white powder
Density	1.5 g/cm ³
Melting point	decomp.
Solubility in water	none

Hazards

EU Index	not listed
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Related compounds

Related compounds	Starch
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✓ [\(what is this?\)](#) [\(verify\)](#)

Except where noted otherwise, data are given for materials in their [standard state](#) (at 25 °C, 100 kPa)

Cellulose is an [organic compound](#) with the [formula](#) $(C_6H_{10}O_5)_n$, a [polysaccharide](#) consisting of a linear chain of several hundred to over ten thousand β (1→4) linked D-[glucose](#) units.^{[2][3]}

Cellulose is the structural component of the primary [cell wall](#) of [green plants](#), many forms of [algae](#) and the [oomycetes](#). Some species of [bacteria](#) secrete it to form [biofilms](#). Cellulose is the most common organic compound on Earth. About 33 percent of all plant matter is cellulose (the cellulose content of [cotton](#) is 90 percent and that of [wood](#) is 40-50 percent).^{[4][5]}

For industrial use, cellulose is mainly obtained from [wood pulp](#) and [cotton](#). It is mainly used to produce [paperboard](#) and [paper](#); to a smaller extent it is converted into a wide variety of derivative products such as [cellophane](#) and [rayon](#). Converting cellulose from [energy crops](#) into [biofuels](#) such as [cellulosic ethanol](#) is under investigation as an alternative fuel source.

Some animals, particularly [ruminants](#) and [termites](#), can [digest](#) cellulose with the help of [symbiotic](#) micro-organisms that live in their guts. [Humans](#) can digest cellulose to some extent,^{[6][7]} however it is often referred to as '[dietary fiber](#)' or 'roughage' (e.g. outer shell of [Maize](#)) and acts as a [hydrophilic](#) bulking agent for [feces](#).

