

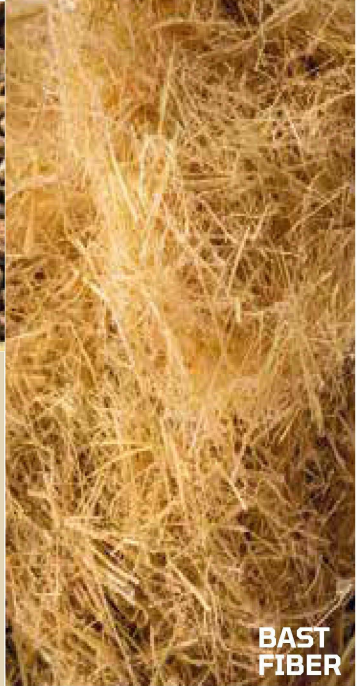
HEMP
SEED



SDMS



SUSTAINABLE DEVELOPMENT MATERIAL SUPPLY



BAST
FIBER

HEMP
HURD



MADE IN USA

WE ARE MORE THAN SUSTAINABLE

The building blocks to sustainability begins with raw materials.

Sustainable Development Material Supply (SDMS) is driving the sustainable raw materials industry to the forefront by offering solutions to supply chain volatility (i.e. shortages, and production limitations).

YOUR SOURCE FOR GREEN MATERIAL

From cellulose powder for bioplastics, bast fiber for textiles, seed for biodiesel, to hurd for construction materials, SDMS has what you need for your next product development or project.

ACHIEVING CARBON NEUTRAL

Companies today are working hard to achieve their **ESG** (Environmental-Social-Governance) and **SDG** (Sustainable Development Goals) initiatives. Our line of products provide the needed actions to stay on target and reach these goals.

ABOUT US



225k

LBS / DAY



40k

SQFT



24hr

DAY



10MM

LBS

We have inventory



HEMP HURD



01 about the product

Hurds are made up of a brittle exterior and a soft in texture interior and makes up 70% of the hemp stalk. Hurds are rich in cellulose, highly absorbent, and a low generator of dust. Hemp hurds possess measurable thermal and acoustical properties along with fire retardant capabilities. Hemp's woody core fibers are short -about 0.55 mm - and, similar to hardwood fibers, are naturally combined with organic lignin. After retting, the woody core can be broken-down into varying sized smaller pieces that can be separated from the fibers by SDMS processing line to custom fit your orders requirements.

02 use

Hemp hurds can then be used in a multitude of other applications such as bio-ethanol production, mulching, and animal bedding. Hemp hurds, a sustainable/renewable raw material, are one of the original "green" construction materials, such as hemp concrete (hempcrete). Other common uses are for biodegrade-able garden mulch, lightweight particle board, acoustic ceilings and wall tiles, non-wood plastic fillers, and a variety of other environmentally friendly bio-products. Hemp hurds can also be converted into hemp pellets to produce a renewable source of feedstock for generating heat and/or energy.

03 we help fulfill these SDG's

At the heart of the UN's environmental blueprint are the 17 Sustainable Development Goals (SDGs), which are urgent calls for action by all countries - developed and developing - in a global partnership "blueprint to achieve a better and more sustainable future for all."

Our hemp impacts the following SDG's | <https://sdgs.un.org>





BAST FIBER



01

about the product

Well known for its mechanical strength, and in fact being one of the strongest natural fibers in the world, hemp's bast fibers' durability exceeds the qualities of traditional alternatives. Hemp bast fiber possesses a wide range of industrial applications spanning a wide spectrum of end user markets ranging from construction to textiles. Growing hemp fiber requires less water (more than 70% less than materials like cotton) and in some cases requires no pesticides (where cotton is responsible for a 1/4 of the world's pesticides).

Hemp fiber can grow roughly 1500 lbs. of fiber in an acre.

02

use

Fiber cultivars are grown at high density, are mostly unbranched, and very tall. An acre of hemp can produce as much fiber as 2-3 acres of cotton. Hemp long fiber requires retting for preparation of high-quality spinnable fibers for production of fine textiles. The fibers are also in the form of large fiber bundles useful in non-woven fiber mats. Bast fiber is of great interest to the pulp and paper industry because of its property of superior strength compared to wood. The shorter fibers are regularly used for insulation in homes, commercial/industrial structures and automobiles. It contains no toxins and it a simple product substitution for conventional fiberglass and Rockwool insulation.

03

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HEMP CELLULOSE



01 about the product

Even at micron levels, the exceptional mechanical properties of hurd cellulose results in the ability for it to be utilized in many applications from bio-composites to bioplastics. High surface area and non-uniformly shaped particles improve absorption and linking. Small particle size creates a flowable material with improved rheology which lends itself to grow with burgeoning 3D printing and injection molding of bioplastics.

02 use

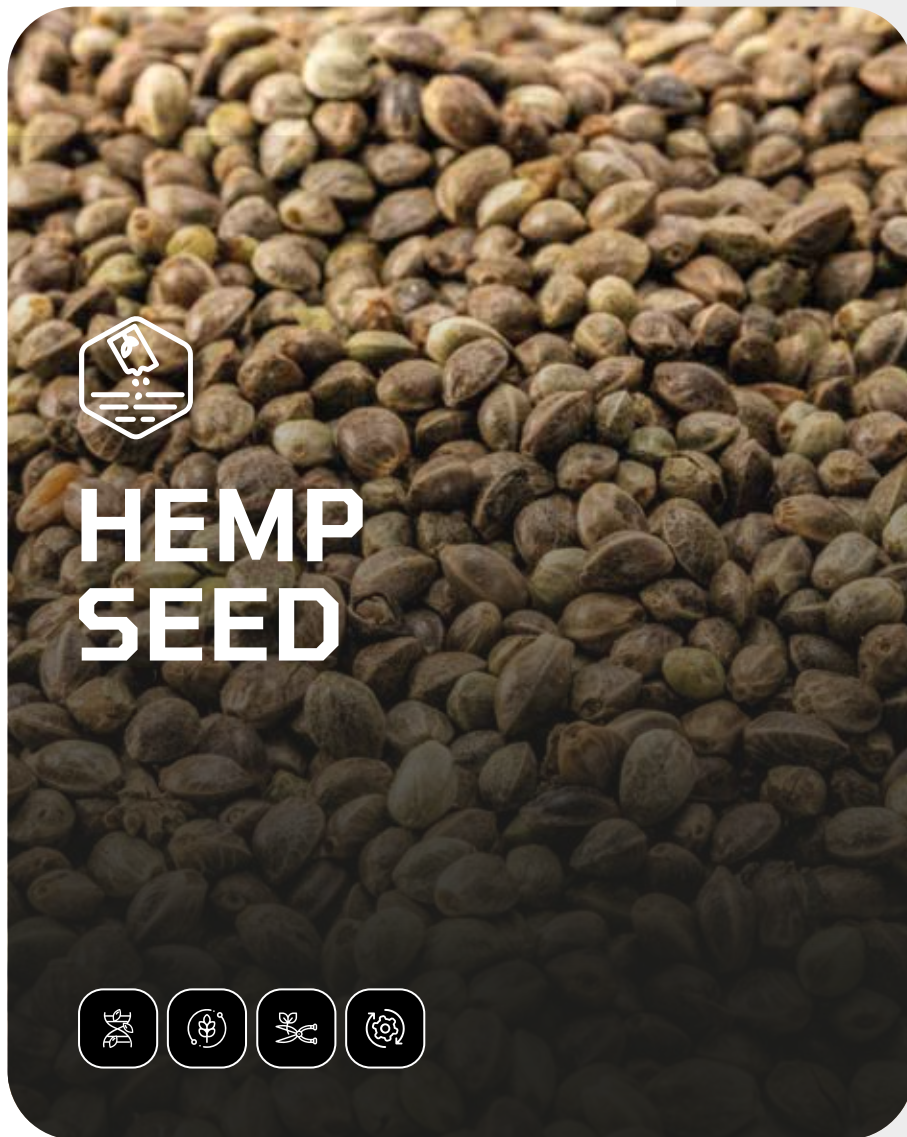
Cellulose-based feedstocks often have high moisture contents and oils which can create gumming and burn off challenges. By producing powders with high surface area at low moisture contents, SDMS solves these issues. Biodegradable plates, cups, utensils, straws, temporary shopping bags/packaging would provide an immediate positive impact on the environment.

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01 **about
the
product**

Whole hempseeds contain 20% soluble and 80% insoluble fiber. Both types of fiber are important for digestion. Because hemp hearts lack the fibrous shell, they are lower in fiber and other nutrients than whole hemp seeds.

Hemp seeds are also rich in gamma-linolenic acid (GLA). GLA is an omega-6 fatty acid that has been shown to have many health benefits. A 2016 study found that GLA has strong anti-inflammatory properties.

02 **use**

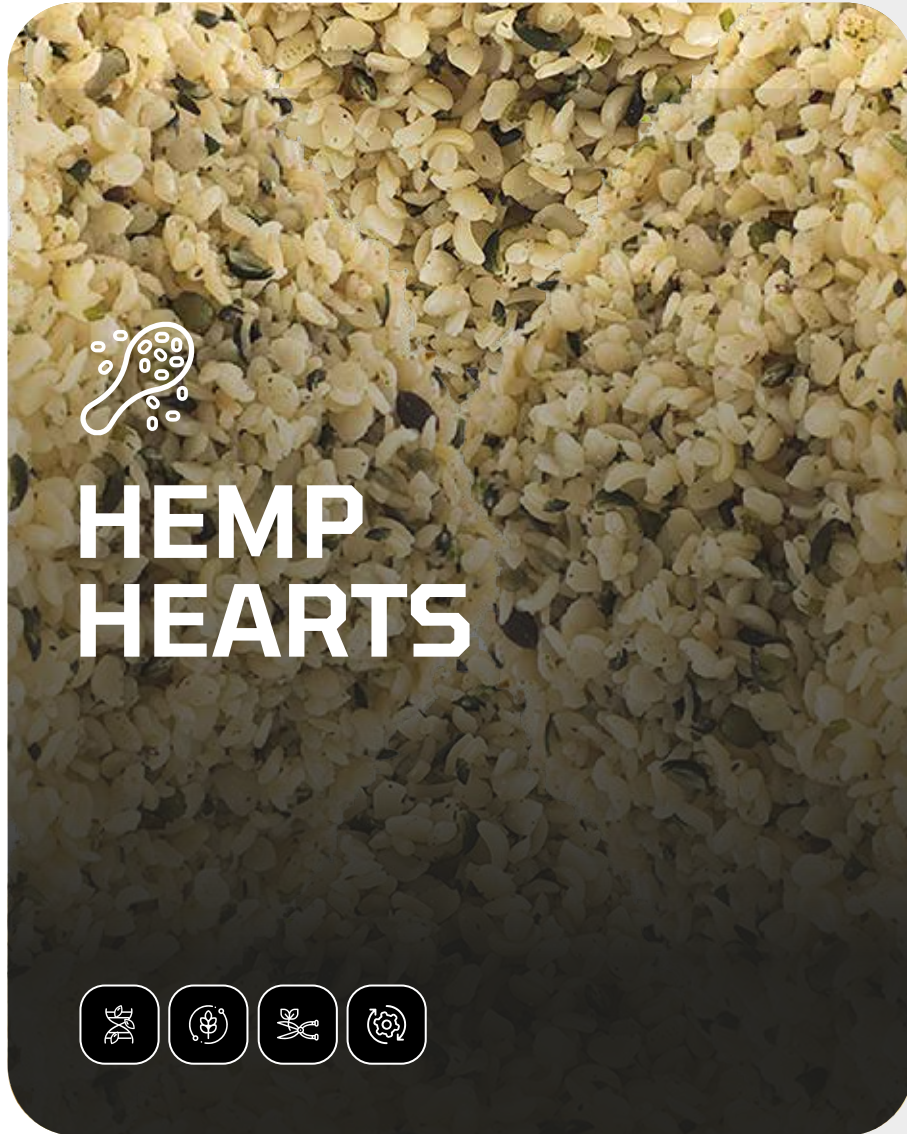
Hemp seeds contain a 3-to-1 ratio of omega-3 to omega-6 fatty acids. This is considered an optimal ratio for heart and brain health. Hemp seeds are a rich source of nutrients, and pound for pound can be considered the most nutrient packed seed on the planet and they are over 30% protein by weight. Moreover, Hemp seed oils are high in EFA's (Essential Fatty Acids) which are just beginning to be understood. Technically a nut, it can be eaten raw or used to make milk, oil, meat & cheese substitutes, and even a supplemental protein powder.

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01

about the product

Hemp hearts are the soft inner part of hemp seeds after the outer shell has been removed. The only difference is hemp hearts have smaller amounts of fiber and minerals, but the fiber it does contain assists in reducing blood sugar spikes, regulating cholesterol levels and reducing any unwanted toxins in your gut. Hemp hearts contain all nine essential amino acids, the building blocks of protein. Hemp hearts are a good choice for vegetarians or vegans because they contain all essential fatty acids. Easy To Digest & Non-Allergenic: Hemp does not contain gluten and is free of the enzyme inhibitor found in soy and other legumes and grains which prevent protein absorption and typically cause gas, bloating and other digestion problems.

02

use

In addition, there are no known allergies to hemp. They are an excellent source of magnesium, offering roughly 50% of your daily needs. A serving contains 13% of your daily iron requirements for adults and 20% of your Zinc daily needs. Hemp hearts contain 1,365 milligrams of the amino acid arginine. Some evidence suggests that this amino acid may help to reduce blood pressure in people with hypertension. Three tablespoons (30 g) of hulled, hemp seeds contains: Calories: 166 | Fat: 14.6 g | Sodium: 1.5 mg | Carbohydrates: 2.6 g Fiber: 1.2 g | Sugars: 0.5 g | Protein: 9.5 g | Calcium: 21 mg | Sugars: 0.5 g | Iron: 2.38 mg | Magnesium: 210 mg | Phosphorus 495 mg Potassium: 360 mg | Zinc: 2.97 mg

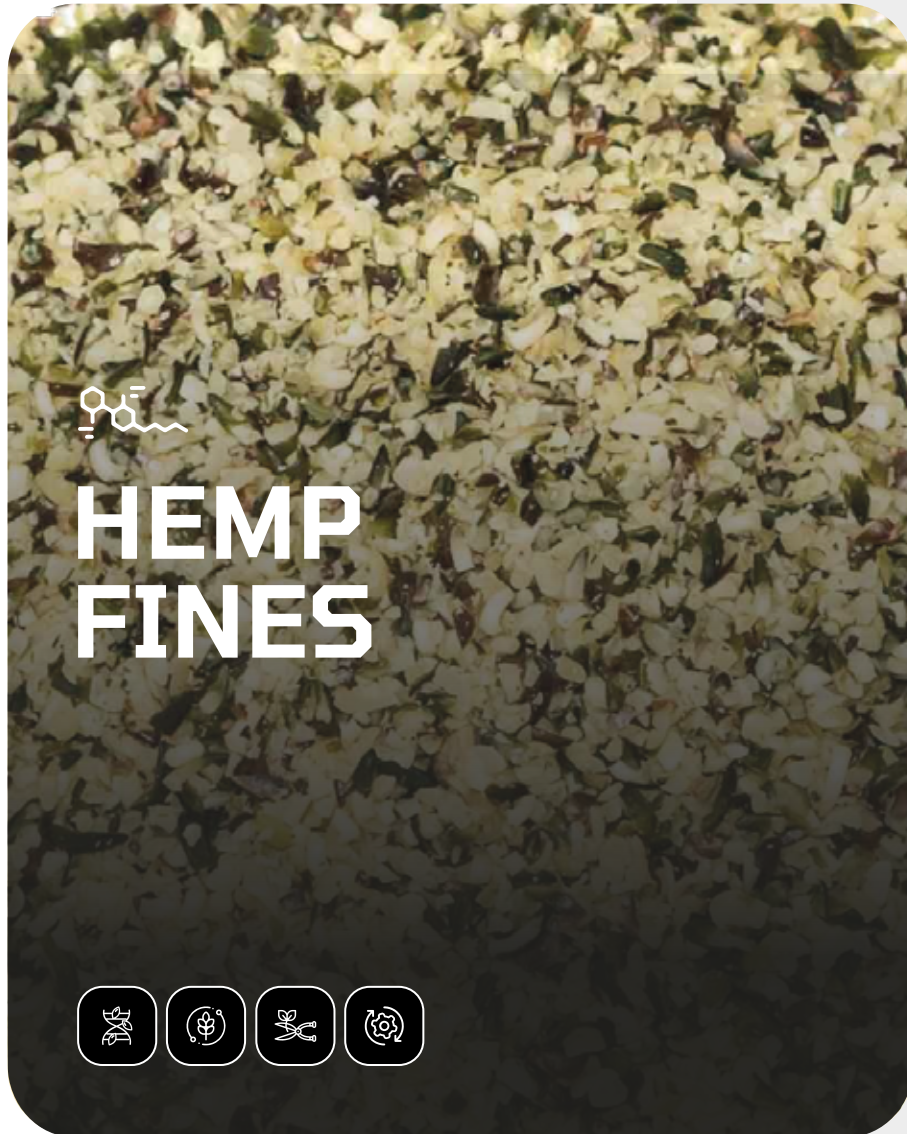
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HEMP FINES

- 01 **about the product**

Created by dehulling hemp seeds, these small, fragmented shells separated from hemp hearts can be used from food products to industrial purposes. These are small pieces of broken hemp nuts and some shell fragments, which gives a stronger flavor than hemp hearts. They also contain more fiber. The shelf life of this hemp is very long due to its low moisture content and not being prone to going rancid. The crunchy shell is a great source of fiber, and when ground down to a fine powder, works in baking or used as a supplement.
- 02 **use**

Easy To Digest & Non-Allergenic: Hemp does not contain gluten and is free of the enzyme inhibitor found in soy and other legumes and grains which prevent protein absorption and typically cause gas, bloating and other digestion problems. In addition, there are no known allergies to hemp.
- 03 **we help fulfill these SDG'S**

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01 about the product

Hemp seed oil comes from hemp seeds only. It is not derived from the Cannabis plant itself. Hemp seed oil does not contain any psychoactive properties. Hemp oil contains healthy nutrients such as:

- Proteins
- Essential fatty acids (EFAs), which are important for good health
- Minerals like zinc, magnesium, calcium, iron, and more
- Antioxidants like vitamin E7

02 use

Hemp Seeds can be pressed into an industrial grade oil which can be used for essentially any product that can be produced from petroleum. Biodiesels, paints, stains, and thousands of other industrial-based products for exfoliating properties. Hemp seed oil is an excellent culinary oil; great for raw dishes, including salads or a salad dressing base, however not good for cooking due to its low flash point.

Hemp seed oil is a prized body care ingredient and is often found in shampoo, balms, body butters, lotions, and makeup. Some studies found that hemp seed oil may improve dry, itchy skin and help symptoms of eczema, a common skin condition. When used for eczema symptoms, it may reduce the need for prescription medication.

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TESTING AND TOLL PROCESSING

Contact

☎ 281-832-1897
🌐 www.SDMSUSA.com
✉ kirk@SDMSUSA.com

Toll processing is a service that includes particle size reduction, by means of milling, shredding, grinding, blending, classification, packaging, compounding, warehousing, mixing, storage, particle agglomeration, dispersions, and quality analysis. SDMS offers companies needing product testing, emergency production, product development, and/or ongoing production for companies requiring expanded capacity.

Key features include:

- Testing supported by measurement of raw materials and processed goods utilizing the most recent methodologies available.
- Clients' operational process is precisely reproduced to exact operating protocols
- Strict adherence to customers' process goals
- Private labeling and packaging is available

Services for the following:

Coarse Grinding | Fine Grinding | Air Classification · Fine Material Separation | Delumping | Screening and Separation | Pelletization



**HEMP
HEARTS**



**HEMP
CELLULOSE**



**HEMP
FINES**



**HEMP
OIL**



**WE ARE MORE THAN
SUSTAINABLE**