

ANNATO SEEDS SPECIFICATION SHEET



BOTANICAL DESCRIPTION

Bixa orellana, commonly known as Anatto or "lipstick tree" is an evergreen shrub or small tree native to tropical parts of Central and western South America. These only species of the family Bixaceae is now widely distributed throughout the tropics as an ornamental or for commercial seed production. Annatto grows up to 9 meters tall and has rose-pink flowers about 5 cm wide and ovate leaves about 8 to 18 cm long. It is generally multi-trunked with smooth pale to dark brown bark that often becomes fissured with age and inner bark with orange sap. The brown fruits, about 5 cm long, yield a reddish or yellowish powder. The plant is cultivated in tropical and subtropical areas of the world.

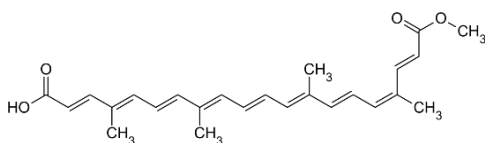
REGISTRATION NUMBERS

Botanical Name:	<i>Bixa orellana</i>
INCI Name:	<i>Bixa Orellana</i> Seed
CAS NUMBER:	89957-43-7 (Annatto seed extract)
EINECS NUMBER :	289-561-2 (Annatto seed extract)

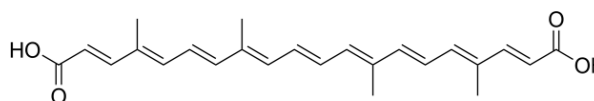
SPECIFICATIONS/ TECHNICAL CHARACTERISTICS

Color:	Reddish
Taste:	Characteristic
Moisture:	Max. 10 %
Bixin content:	Min 2.7 % (at product departure)
Foreign matter:	Max. 2 %
Pesticides:	According to EU 396/2005 Regulation

Annatto comes from the waxy covering on the plant's seeds. The carotenoid pigments bixin and norbixin are primarily responsible for the red-orange color and the main commercially useful components of the seed.



Bixin



Norbixin

PROPERTIES AND USES

Annatto has been used for centuries for various purposes. Traditionally, it was used for body painting, as sunscreen, as an insect repellent, and for treating disorders, such as heartburn, diarrhea, ulcers, and skin issues. Today, it's mainly used as a natural food dye and for its flavor. Annatto seed extract (bixin and norbixin) is actually used to give various cheeses their bright yellow color. The extract is added to various soups, gravies, cheese, butter, margarine, cakes, and packaged popcorn to enhance their colour profile. Bixin and norbixin (E 160b) are among the major food dyes in the food industry. Several health benefits have also been related to this natural food dye.

- ✚ **Antioxidant properties** : Numerous compounds with antioxidant properties (carotenoids, terpenoids and flavonoids) are contained in annatto seed. These elements are useful in free radicals neutralization ;
- ✚ **Possible anticancer properties** : Some studies have demonstrated that annatto extract may suppress cancer cell growth and induce cell death in human prostate, pancreas, liver... ;
- ✚ **Promote eye health** : Annatto high carotenoids concentration may be beneficial for eye ;
- ✚ **Antimicrobial properties** : Research suggests that this food coloring may have antimicrobial properties.

Undesirable effects : In general, annatto appears to be safe for most people. Though it's uncommon, some people may experience an allergic reaction to it. Symptoms may include itchiness, swelling, low blood pressure, hives, and stomach pain.

RECOMMENDED STORAGE CONDITIONS

The annatto seeds should preferably be stored in dry and well-ventilated area. Under normal storage conditions, the product shelf life is up to 03 years.