In the food industry, castor oil (food grade) is used in food additives [3], flavorings, candy (i.e., chocolate) [11], as a mold inhibitor,

[edit] Medicinal use of castor oil

The United States <u>Food and Drug Administration</u> (FDA) has categorized castor oil as "generally recognized as safe and effective" (GRASE) for over-the-counter use as a <u>laxative</u>. However, it is not a preferred treatment for constipation. [15]

<u>Undecylenic acid</u>, a castor oil derivative, is also FDA-approved for over-the-counter use on skin disorders or skin problems. [16]

Ricinoleic acid is the main component of castor oil and it exerts anti-inflammatory effects. [17]

One study has found that castor oil decreased pain more than ultrasound gel or Vaseline during extracorporeal shock wave application. Therapeutically, modern drugs are rarely given in a pure chemical state, so most active ingredients are combined with excipients or additives. Castor oil, or a castor oil derivative such as Cremophor EL (polyethoxylated castor oil, a nonionic surfactant), is added to many modern drugs, including:

- Miconazole, an anti-fungal agent; [19][20]
- Paclitaxel, a mitotic inhibitor used in cancer chemotherapy; [21]
- Sandimmune (<u>cyclosporine</u> injection, USP), an immunosuppressant drug widely used in connection with organ transplant to reduce the activity of the patient's immune system; [22]
- Nelfinavir mesylate, an HIV protease inhibitor; [23]
- Saperconazole, a triazole antifungal agent (contains Emulphor EL -719P, a castor oil derivative): ^[24]
- <u>Prograf</u>, an immunosuppressive drug (contains HCO-60, polyoxyl 60 hydrogenated Castor oil); <u>Coltation needed</u>
- Xenaderm ointment, a topical treatment for skin ulcers is a combination of <u>Balsam Peru</u>, Castor oil, and trypsin; [25] [26]
- Aci-Jel, a gel used to create or maintain the acidity of the vagina (comprises acetic acid/oxyquinoline/<u>ricinoleic acid</u> - vaginal) [27]

[edit] Traditional or folk medicines

The use of cold pressed castor oil in folk medicine predates government regulations. Cold pressed castor oil is tasteless and odorless when pure. Uses include skin problems, burns, sunburns, skin disorders, skin cuts, abrasions, etc.

The oil is also used as a rub or pack for various ailments, including abdominal complaints, headaches, muscle pains, inflammatory conditions, skin eruptions, lesions, and sinusitis. A castor oil pack is made by soaking a piece of flannel in castor oil, then putting it on the area of complaint and placing a heat source, such as a hot water bottle, on top of it. This remedy was often suggested by the American Healing Psychic, Edgar Cayce, given in many healing readings in the early to mid-1900s. [28]