

## Dihydroxyacetone

### Specification Sheet

**Description:** FDA-approved self-tanning agent obtained by bacterial degradation of natural phosphate sugar. Off-white, fine crystalline powder, characteristic odor, pH 4-6, soluble in water & alcohol. Synonyms: dihyxal, otan, oxantin.

**CAS:** 96-26-4

**INCI Name:** 1,3-dihydroxy-2-propanone

**Benefits:**

- Reacts with proteins in the skin thereby forming melanoidin-like brown compounds within 2 hours producing a suntanned appearance
- Note: tan does not protect against UV-rays like the melanin-tan produced by sunbathing!
- Can be combined with erythrose

**Use:** Can be added to formulations as is, usual final concentration 2-12%, lower concentration for lighter tan or face, higher concentration for darker shade and body. DHA may lose its tanning effect (or induce discolorations) when combined with alpha-hydroxy acids, titanium dioxide, zinc oxide, iron oxide pigments, or certain perfumes. Avoid using amino acids, proteins, peptides, EDTA. Final product should be in the pH range between 3.5 and 5, this will prevent it from early degradation. Usually combined with erythrose for a deeper, natural looking tan. For external use only.

**Storage:** Store refrigerated (4-8°C / 39-46°F)

**Applications:** All kinds of self-tanning cosmetic products including creams and lotions, cream foundations.

**Country of Origin:** USA

**Raw material source:** Glycerin, sorbitol

**Manufacture:** DHA is produced by bacterial-driven enzymatic degradation of natural glycerin in the presence of sorbitol.

**Animal Testing:** Not animal tested

**GMO:** Not tested for GMOs

**Vegan:** Does not contain animal-derived components