Technical Datasheet

SAT-DH-acetone

INCI-name: Dihydroxyacetone

CAS-no.: 96-26-4 EINECS:: 202-494-5

Article No. 778090

	Standard	Typical value
Appearance	white to offwhite free flowing powder	white freeflowing powder
Identity (IR-spectrum)	conforms	conforms
Appearance of solution	clear	clear
Water content	< 0,5%	0,2%
pH	4 – 6	5,7
Assay	Min. 98%	99,4%
Protein(colorimetric)	< 0,1%	conforms
Glycerole	< 0,5%	conforms
Sulfated ash (600°C)	< 0,1%	0,07%
Heavy metals (Pb)	< 10ppm	conforms
Arsenic	< 3ppm	conforms
Iron	< 20ppm	Conforms
Formic acid	< 30ppm	conforms
Methanal (HPLC)	< 30ppm	Conforms
Total viable aerobic content	< 100cf/7g	< 100cfu/g
E.coli	absent in 1g	absent in 1g
Pseudomonas aeruginosa	absent	absent
Staphylococcus aureus	absent	absent
Salmonella species	absent	absent

Dihydroxyacetone (DHA) is a white to off-white free flowing powder. DHA is soluble in water. As a general statement, the storage stability of DHA at 4 – 8 °C is declared to be at least 18 months.

DHA is used as self-tanning agent. DHA reacts with the amino acids and amino groups of proteins present in sweat, keratin and skin leading to the production of coloured melanoidins. This process is similar to the "Maillard reaction", also known as non-enzymatic browning. 2 - 6 hours after application, a brown coloration appears that has a similar hue to that of natural suntan.

Dosage recommendation:
Ca. 3 - 5 % in formulations for persons with light skin.
Ca. 5 - 10 % in formulations for persons with dark skin.
Ca. 1 - 2 % in formulations for skin care products (creams and lotions).