

TECHNICAL DATA SHEET

Lutision™ Lutein Esters Powder

5% CWS M

Chemical Properties

CAS No: 547-17-1;

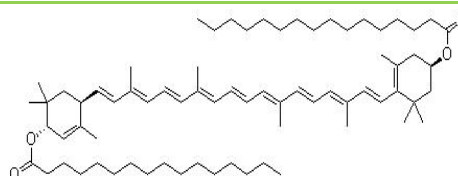
EINECS No.: 208-916-4

Chemical Formula: C₇₂H₁₁₆O₄

Molecular Weight: 1045.71

Botanical source: *Tagetes erecta* L.

Used part: Marigold flower



Description

Lutein is present in plants as fatty-acid esters, with one or two fatty acids bound to the two hydroxyl-groups. For this reason, saponification (de-esterification) of lutein esters to yield free lutein may yield lutein in any ratio from 1:1 to 1:2 molar ratio with the saponifying fatty acid.

Solubility

It is soluble in cold water, and soluble in ethanol, chloroform and ether.

Specification

Item	Specification	Test Method
Appearance	Orange-red free-flowing powder.	Visual
Total Carotenoids	Min 5.0%	UV
Lutein Esters	Min 4.5%	UV
Bulk Density	0.35~0.70g/ml	In-house
Loss on drying	Max 5.0%	GB 5009.3
Particle size	Min 95% through 80 mesh	In-house
Lead	Max 1.0 ppm	GB 5009.12
Arsenic	Max 1.0 ppm	GB 5009.11
Cadmium	Max 1.0 ppm	GB 5009.15
Mercury	Max 0.1 ppm	GB 5009.17
Total plate count	Max 1000 CFU/g	GB 4789.21
Yeasts and molds	Max 100 CFU/g	GB 4789.21
Coliforms	Max 10 CFU/g	GB 4789.21
<i>E. Coli</i>	Negative/g	GB 4789.21
<i>Salmonella</i>	Negative/25g	GB 4789.21
<i>Staphylococcus aureus</i>	Negative/g	GB 4789.21

Ingredients

Lutein esters 5.0%, Natural Carotenoid 3.0%, Maltodextrin 92.0%. (M is short for Maltodextrin)

Labeling

In the United States and the European Union: Lutein Esters

Applications

As a coloring agent and a nutrient for food such as fast food, baking food, drink, jelly, confectionery and dairy products.

Safety

This product is safe for the intended use. Avoid ingestion, inhalation of dust or direct contact by applying suitable protective measures and personal hygiene. See Material Safety Data Sheet for full safety information.

Handling recommendations

Store in a dry and cool place, protected from light, heat and oxygen. The preferred storage temperature is below 30°C. This product is stable for at least two years in the unopened original package. It is recommended to use the entire contents after opening.

Packaging, Storage & Shelf Life

Package	5 kg aluminum bag purged with nitrogen, 5 bags/cardboard drum; or according to customers' requirements.
Storage	Store in a well-closed container away from moisture and direct sunlight.
Shelf Life	2 years if sealed and stored properly.