TECHNICAL DATA SHEET

Chlorophyll Paste

Item	Specification
Product Name	Chlorophyll Paste
Synonyms	Chlorophyll (paste); Chlorophylls; Natural Chlorophyll Oleoresin; E140(i)
CAS No.	1406-65-1
EINECS No.	215-800-7
Main Components	Chlorophyll a: $C_{55}H_{72}MgN_4O_5$ (Chlorophyll a, MW 893.49); Chlorophyll b: $C_{55}H_{70}MgN_4O_6$ (Chlorophyll b, MW 907.47); edible vegetable oil carrier
E Number	E140(i)
Source	Natural plant chlorophyll (alfalfa / mulberry leaf / spinach)
Manufacturing Process	Extraction, purification and concentration into a paste with food-grade oil carrier
Physical Form	Dark green paste

1. Physical & Chemical Properties

Property	Specification
Appearance	Dark green paste (semi-solid at room temperature)
Odor	Slight characteristic odor
Solubility	Dispersible / soluble in oils, fats and organic solvents; insoluble in water
Chlorophyll Content (as total chlorophylls)	5.0 – 20.0%
Absorptivity $E^{1}\%_{1}$cm (660 nm, in suitable solvent)	≥ 400
Moisture	≤ 2.0%

2. Applications

- Natural green colourant for oil-based and fatty foods (E140(i)).
- Bakery fats, margarine, butter analogues, chewing gum, snack coatings, sauces.
- Cosmetics: lipstick, cream, oil-phase cosmetic formulations.
- Food supplement and pharmaceutical formulations (oil phase).

Remark: *Magnesium chlorophyll paste is sensitive to light, heat and acids; copper chlorophyll paste (E141(i)) offers higher stability. Protect from strong light and prolonged high temperature.*

3. Storage & Packaging

Item	Detail
Storage Conditions	Tightly sealed, protected from light and oxygen, stored in a cool, dry place
Shelf Life	24 months under recommended storage conditions
Packaging	1 kg / 5 kg / 10 kg / 25 kg aluminium bag, HDPE drum or food-grade plastic container with liner

4. Handling Precautions

- May stain; handle with care and use protective gloves.
- Warm slightly before use if the paste is too viscous; do not overheat.

- Protect from direct sunlight, oxygen, high temperature and acids.
- Keep container closed after use.

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