Microencapsulated Dunaliella Extract (Dunaliella salina) – Beta-carotene 5–10%, CWS/WD

Dunaliella salina · Dunaliellaceae

DOCUMENT	PRODUCT CODE	DOCUMENT NO.	REVISION
Technical Data Sheet	AP1499	TDS-AP1499	1.0 · 24 October 2026

PRODUCT FORM
Microencapsulated Extract (CWS/WD)

1 Product description

Dunaliella extract is produced from the biomass (microalga) of Dunaliella salina (Dunaliellaceae family) and supplied as a microencapsulated cold-water-soluble / water-dispersible ingredient, standardized to Beta-carotene. Available grades: 5%, 10%. Typical sourcing: Australia, Israel, China. Intended for B2B formulation in nutraceuticals & supplements, food & beverage.

5% 10%

2 Identification

Botanical source	*Dunaliella salina* (Dunaliellaceae)
Common name(s)	Dunaliella
Plant part used	Algae & Seaweed
Typical origin	Australia, Israel, China
Marker compound	Beta-carotene (Carotenes)
CAS number	7235-40-7
Manufacturing process	Extract microencapsulated on a food-grade carrier (carrier stated on the CoA) to give a cold-water-soluble / water-dispersible form
Standardisation	5–10% (HPLC, UV-Vis spectrophotometry)
Assay method	HPLC, UV-Vis spectrophotometry
Pharmacopoeia & standards	JECFA specification, EFSA opinion / novel food

3 Specification

PARAMETER	SPECIFICATION	METHOD
Appearance	Red to orange-red powder	Visual
Odour	Characteristic	Organoleptic
Identification	Conforms (HPTLC / HPLC fingerprint vs. reference)	HPTLC / HPLC
Assay – Beta-carotene	Not less than the labelled grade (5%, 10%)	HPLC, UV-Vis spectrophotometry
Loss on drying	≤ 5.0%	USP ‹731›
Total ash	≤ 5.0%	USP ‹561›
Particle size	≥ 95% through 80 mesh (180 µm)	USP ‹786›
Bulk density	Report (typically 0.40–0.70 g/mL)	USP ‹616›
Residual solvents	Complies with ICH Q3C / USP ‹467›	GC-HS
Lead (Pb)	≤ 3.0 mg/kg	ICP-MS
Arsenic (As)	≤ 2.0 mg/kg	ICP-MS
Cadmium (Cd)	≤ 1.0 mg/kg	ICP-MS
Mercury (Hg)	≤ 0.1 mg/kg	ICP-MS
Pesticide residues	Complies with USP ‹561› and Regulation (EC) No 396/2005	GC-MS/MS, LC-MS/MS

Aflatoxins	B1 ≤ 2 µg/kg; sum of B1, B2, G1, G2 ≤ 4 µg/kg	HPLC-FLD
Total aerobic microbial count	≤ 10,000 cfu/g	USP ‹2021›
Yeasts & moulds	≤ 1,000 cfu/g	USP ‹2021›
Escherichia coli	Absent in 10 g	USP ‹2022›
Salmonella spp.	Absent in 25 g	USP ‹2022›
Staphylococcus aureus	Absent in 10 g	USP ‹2022›

Limits above are the standard release specification for this product class. Each lot is released against its Certificate of Analysis, which is the governing document and is available on request.

4 Grades & pack sizes

GRADE	SKU PREFIX	PACK SIZES
5%	AP1499-5	Sample (50 g) · 250 g · 1 Kg · 5 Kg · 25 Kg
10%	AP1499-10	Sample (50 g) · 250 g · 1 Kg · 5 Kg · 25 Kg

5 Packaging

- Samples: food-grade HDPE jar or aluminium-laminate pouch.
- 250 g – 1 Kg: food-grade LDPE bag sealed in an aluminium-laminate pouch.
- 5 Kg – 25 Kg: double food-grade LDPE bags in a fibre drum or HDPE pail.
- Packaging may vary by lot and is stated on the packing list.

6 Storage & shelf life

- Shelf life: 24 months from date of manufacture in the original, unopened packaging.
- Store in a cool (below 25 °C), dry place, protected from light.
- Hygroscopic: reseal immediately after use and minimise exposure to humid air.

7 Applications

Industries	Nutraceuticals & Supplements, Food & Beverage
Formulation focus	Eye Health, Antioxidant & Healthy Ageing, Natural Colours

Use levels depend on the finished product and the target market. The customer is responsible for establishing safe and permitted use levels and for any claims made on finished products.

8 Regulatory & compliance

- Pharmacopoeia / standard references: JECFA specification, EFSA opinion / novel food.
- Allergen information: not derived from a source listed in Annex II of Regulation (EU) No 1169/2011.
- Regulatory status for food, supplement, cosmetic or pharmaceutical use (e.g. EU novel food, US NDI/GRAS, FSSAI) must be confirmed by the customer for the intended market and use.

This Technical Data Sheet is issued by CHOLAD PRIVATE LIMITED (trading as Extrakte), C 22/4, 2nd & 3rd Floor, Sector-57, Noida-201301, Uttar Pradesh, India · +91 817 8117 600 · choladco@gmail.com · extrakte.com. The information is given in good faith and reflects our current knowledge of the product; it does not constitute a warranty of properties for any specific application. Refer to the Safety Data Sheet **SDS-AP1499** for hazard, handling and transport information. Certificates of Analysis are issued per lot and are available on request.