BINMEI
BIOTECHNOLOGY

Together Towards The Best Natural Colors & Food Coloring

Zhejiang Binmei Biotechnology Co., Ltd.

www.binmei-color.com

Why Natural Colors are Becoming the First Choice

Growing regulatory pressure, increasing consumer awareness, and the demand for clean-label products are accelerating the transition from synthetic to natural colors. Choosing the right natural color today is not only about appearance—it is about compliance, product performance, and long-term market competitiveness.

Clean Label
Natural colors create added value through label transparency, product differentiation, and stronger consumer trust.

Regulatory Changes
Increasing regulations are driving food manufacturers to replace synthetic colors with naturally derived alternatives.

Consumer Preference
Consumers increasingly expect recognizable ingredients and cleaner labels across food and beverage categories.

Product Innovation
Natural colors are becoming essential for premium beverages, dairy products, confectionery, and plant-based foods.

Natural colors are no longer just an alternative—they are becoming the new standard for food innovation.

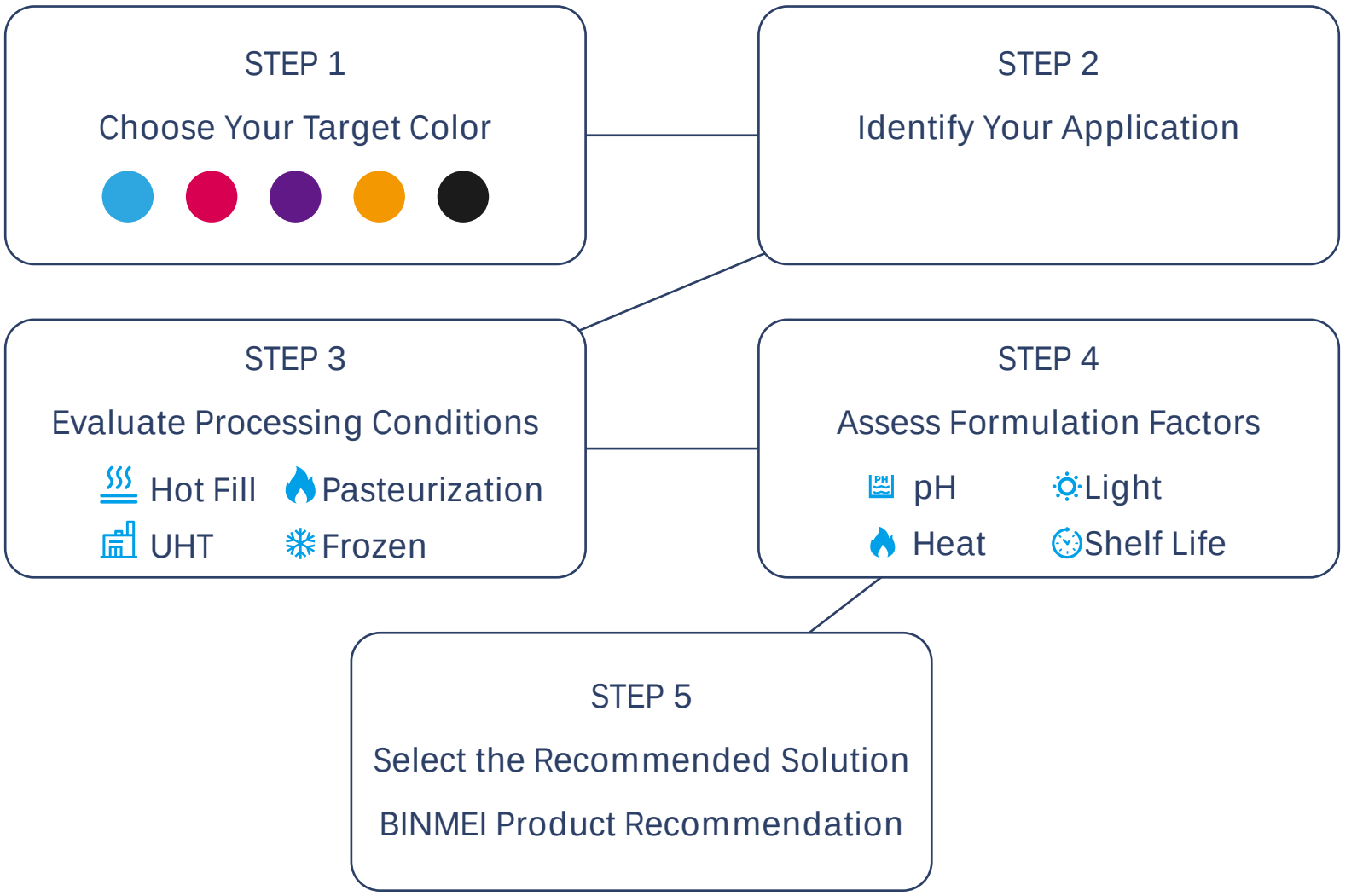
BINMEI Natural Color Selection Framework

Not sure which natural color fits your formulation?
Follow the BINMEI Selection Framework.

BINMEI Natural Color Selection Framework™

A practical approach to selecting

the right natural color for every formulation.



BINMEI evaluates every formulation based on

application, processing conditions and product environment

to recommend the most suitable natural color solution.

Every application is different.

How to Choose the Right Natural Color

- What is your target shade?
- What is the pH?
- What processing will be used?
- What shelf life do you require?
- Is regulatory compliance required?
- Is label declaration important?

BINMEI Tip

Sharing these six details with our technical team helps us recommend the most suitable natural color solution for your application.

Natural Color Decision Guide

Spirulina Extract

BINMEI uses its top-quality spirulina to produce its spirulina extract through a strict quality system, BINMEI's spirulina extract is guaranteed to be world-class. Our spirulina extract is FSSC 22000 certified, which ensures we manage our food safety responsibilities effectively. We're also ensured by many certifications including Kosher, Halal and Organic. Our spirulina extract is 100% compliant with both the new EU Guidance Notes and FDA quality specifications.

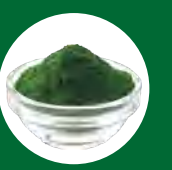
Stability Properties

- **pH:** 4.5-8.0
- **Heat:** < 65℃/149℉
- **Light:** Sensitive
- **Solubility:** Water-soluble

Spirulina Extract

Spirulina Concentrate

Butterfly Pea Flower Extract



Spirulina Superfine Powder

Natural Green

Cuttlefish Ink Powder

Sea Buckthorn Extract

Gardenia Extract

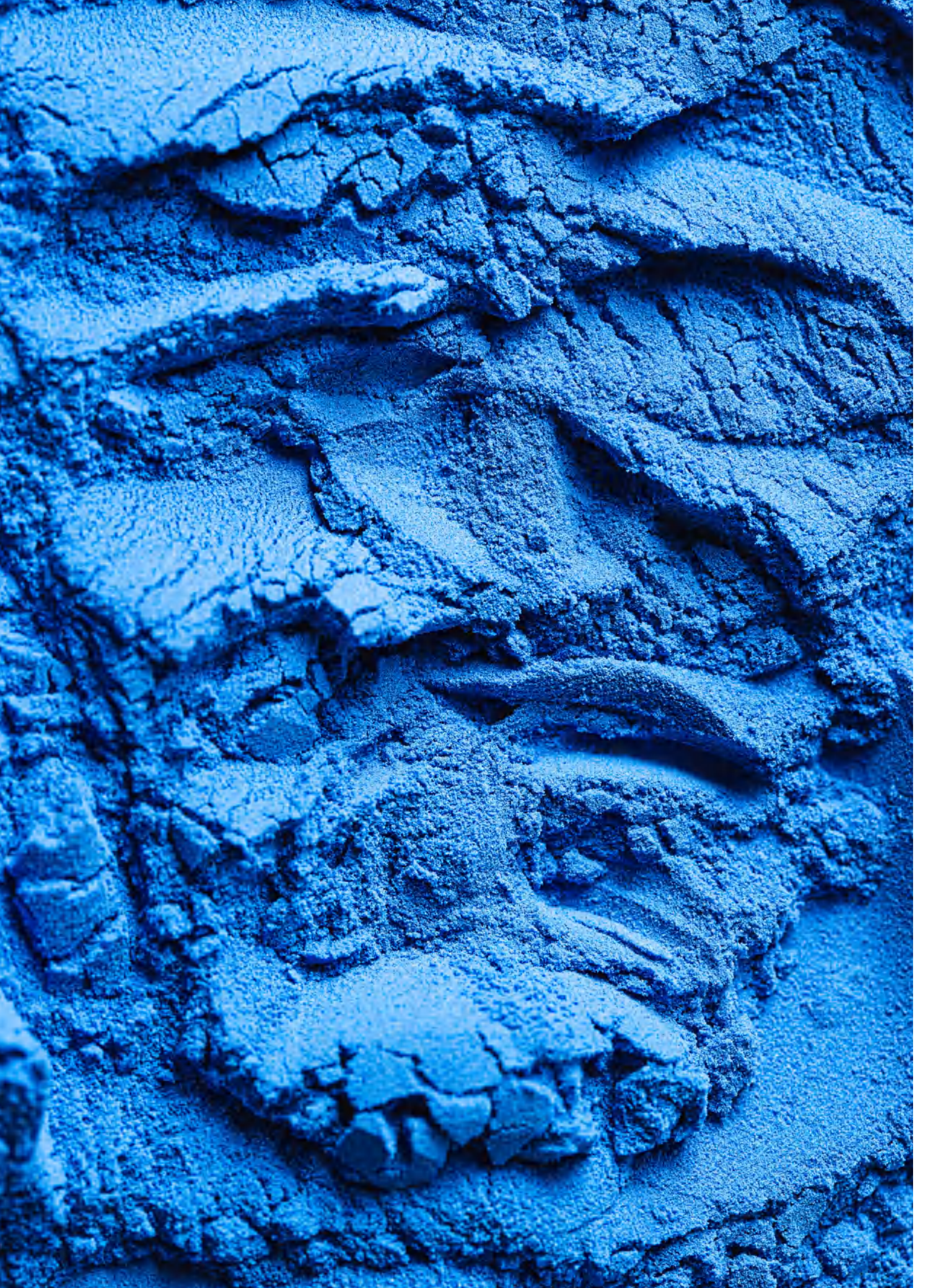
Black Carrot Extract

Beet Extract

Hibiscus Extract

Aronia Extract

Every recommendation from BINMEI follows the same evaluation framework to help customers select the right natural color with greater confidence.



Spirulina
Extract

Sensory profile:
Typical

Color:
Blue

Appearance:
Fine powder

Source used:
Arthrospira platensis

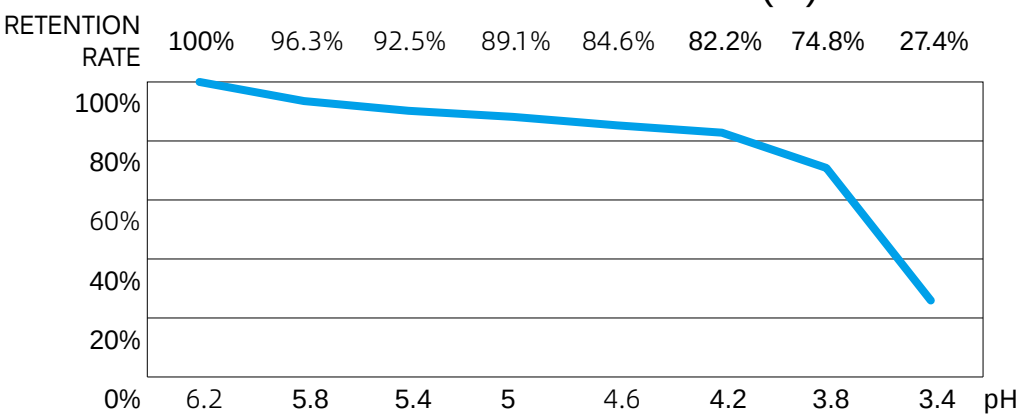
Part used:
The whole algae

Extraction solvent used:
None

Specification:
E18 for reference

PH Stability

Blue Color Retention Rate (%)

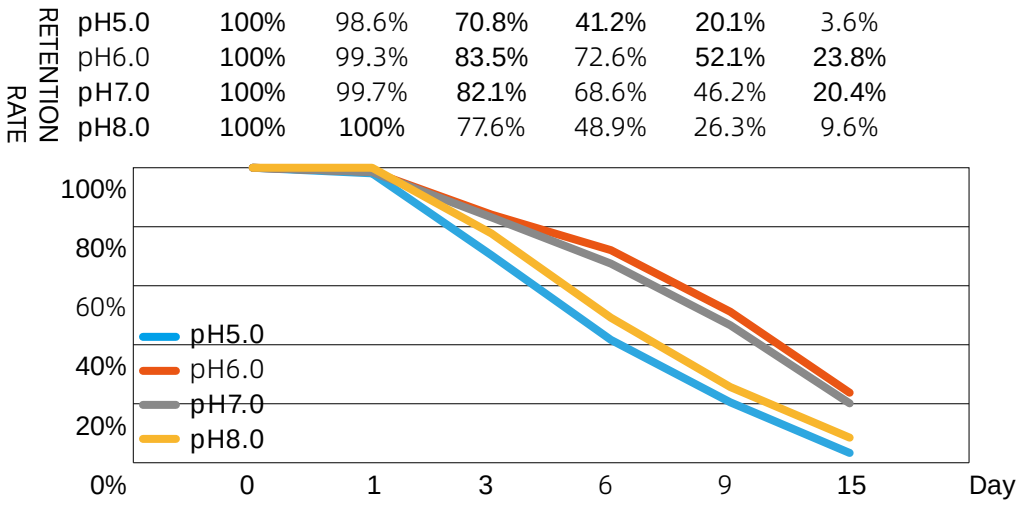


Heat Stability

Blue Color Retention Rate (%)

Light Stability

Blue Color Retention Rate (%)



Regulatory Compliance

Code	Description	Comment
21CFR	US Code of Federal Regulations, Title 21 - US FDA	21 CFR § 73.530
CA FDR	Canada Food and Drug Regulations	"Spirulina Extract" List 3 of Permitted Food Colours
NATCOL	NATCOL Code of Practice for the Classification, Manufacturing, Use and Labelling of Colouring Foods (EU)	"Spirulina Extract"

Butterfly Pea
Flower Extract

Sensory profile:
Typical

Color:
Purple

Appearance:
Fine powder

Colouring principle:
Anthocyanins

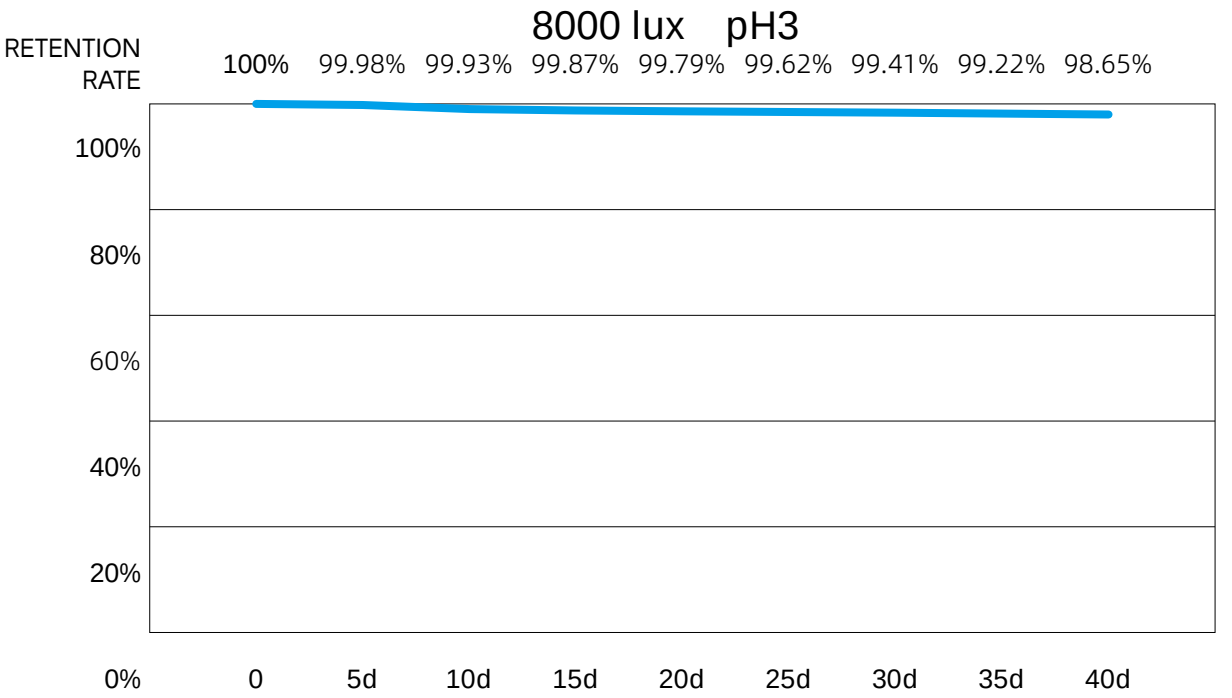
Source used:
Clitoria ternatea

Part used:
Petal

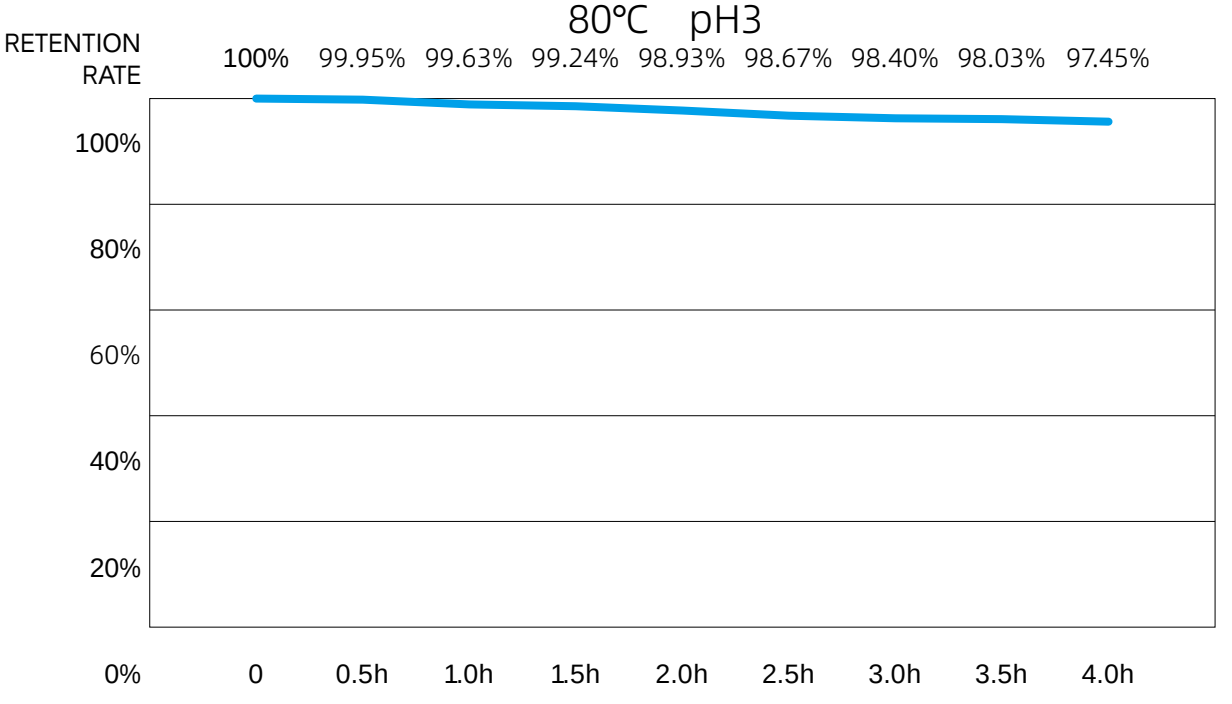
Extraction solvent used:
None

Specification:
E3, E10

Light Stability



Heat Stability



Regulatory Compliance

Code	Description	Comment
21CFR	US Code of Federal Regulations, Title 21 - US FDA	21 CFR § 73.69

Aronia Extract

Sensory profile:
Typical

Color:
Dark red

Appearance:
Fine powder

Colouring principle:
Anthocyanins

Source used:
Aronia melanocarpa (Michx.) Elliott

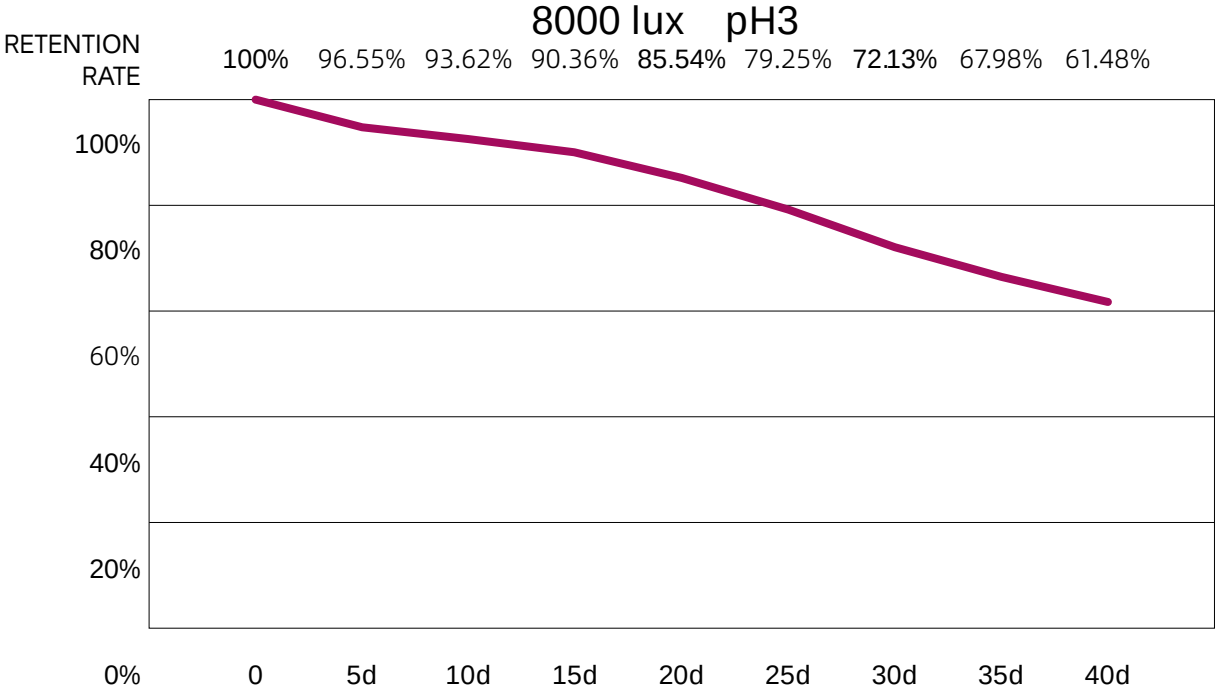
Part used:
Fruit

Extraction solvent used:
None

Specification:
E20

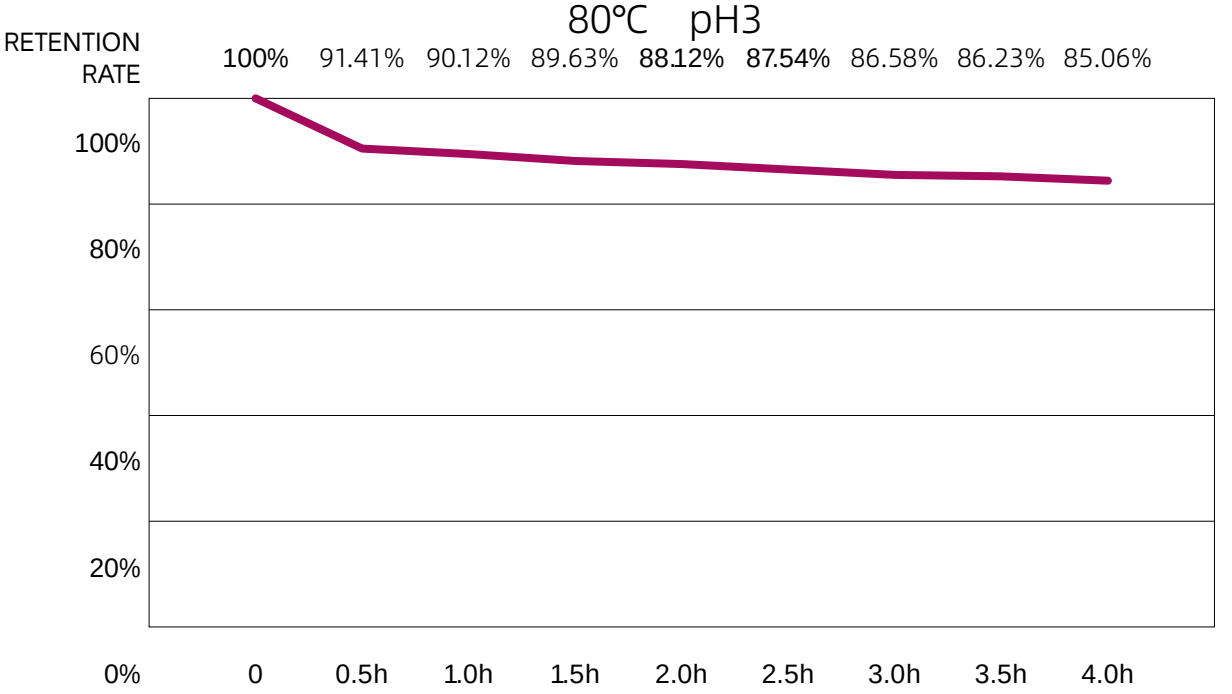
Light Stability

8000 lux pH3



Heat Stability

80℃ pH3



Regulatory Compliance

Code	Description	Comment
21CFR	US Code of Federal Regulations, Title 21 - US FDA	21 CFR § 73.250 Fruit juice "Anthocyanins"
CA FDR	Canada Food and Drug Regulations	List 3 of Permitted Food Colours "Chokeberry"
NATCOL	NATCOL Code of Practice for the Classification, Manufacturing, Use and Labelling of Colouring Foods (EU)	

Black Carrot Extract

Sensory profile:
Typical

Color:
Dark red

Appearance:
Fine powder

Colouring principle:
Anthocyanins

Source used:
Daucus carota (L.)

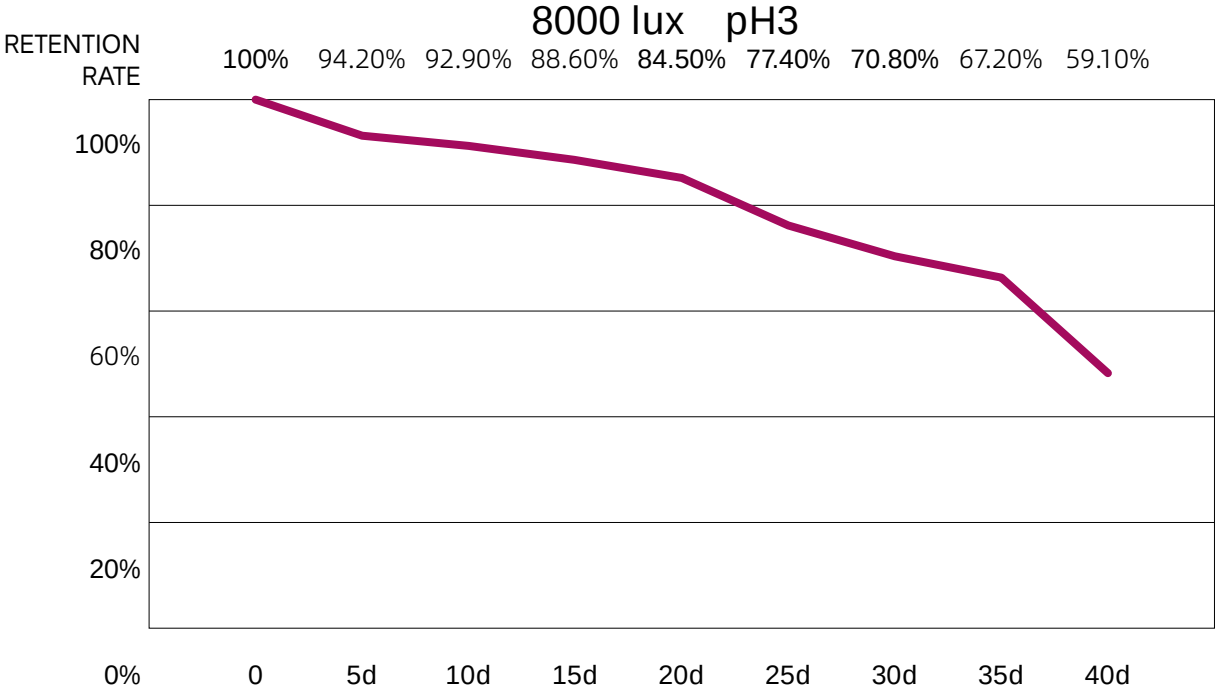
Part used:
Taproot

Extraction solvent used:
None

Specification:
E60, E100

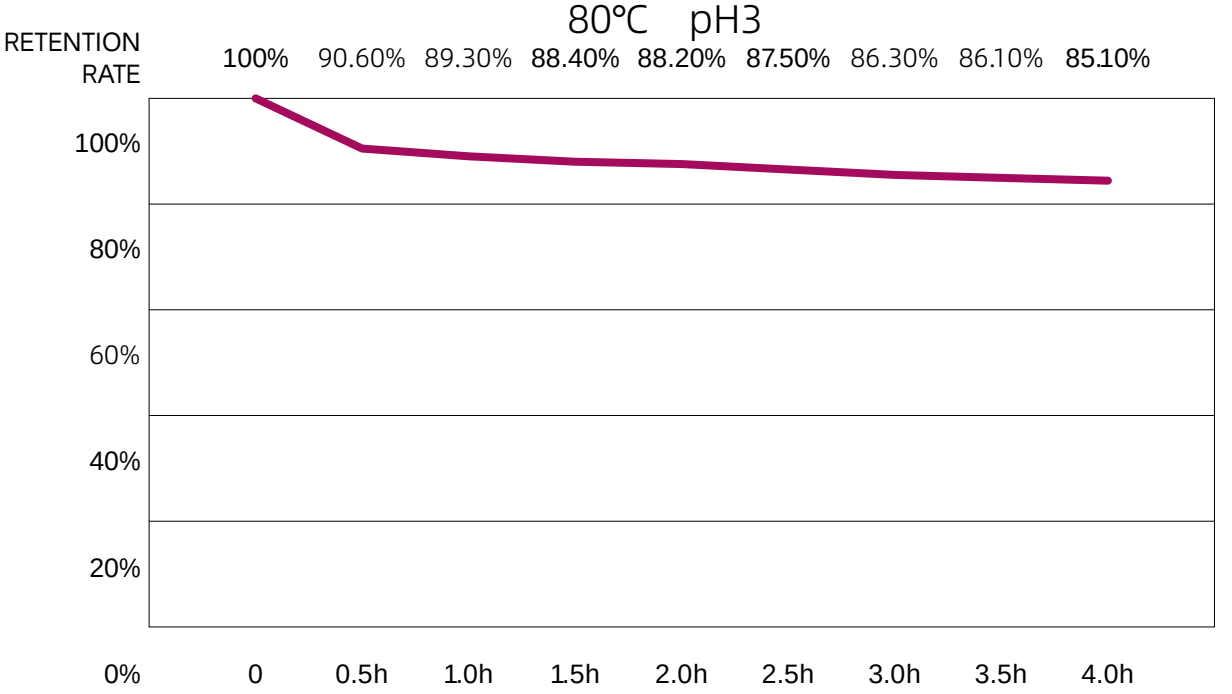
Light Stability

8000 lux pH3



Heat Stability

80℃ pH3



Regulatory Compliance

Code	Description	Comment
21CFR	US Code of Federal Regulations, Title 21 - US FDA	21CFR § 73.260
CA FDR	Canada Food and Drug Regulations	"Anthocyanins" List 3 of Permitted Food Colours
NATCOL	NATCOL Code of Practice for the Classification, Manufacturing, Use and Labelling of Colouring Foods (EU)	"Carrot, black"

Beet Extract

Sensory profile:
Typical

Color:
Dark red

Appearance:
Fine powder

Colouring principle:
Betanin

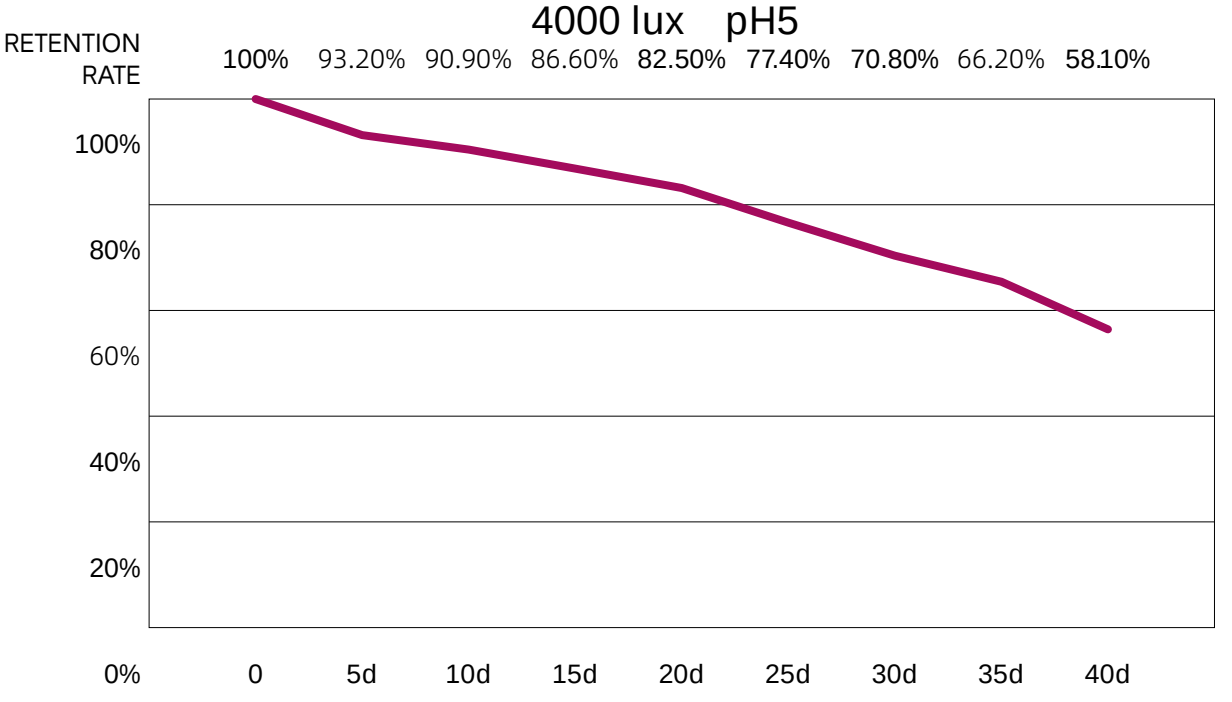
Source used:
Beta vulgaris (L.)

Part used:
Taproot

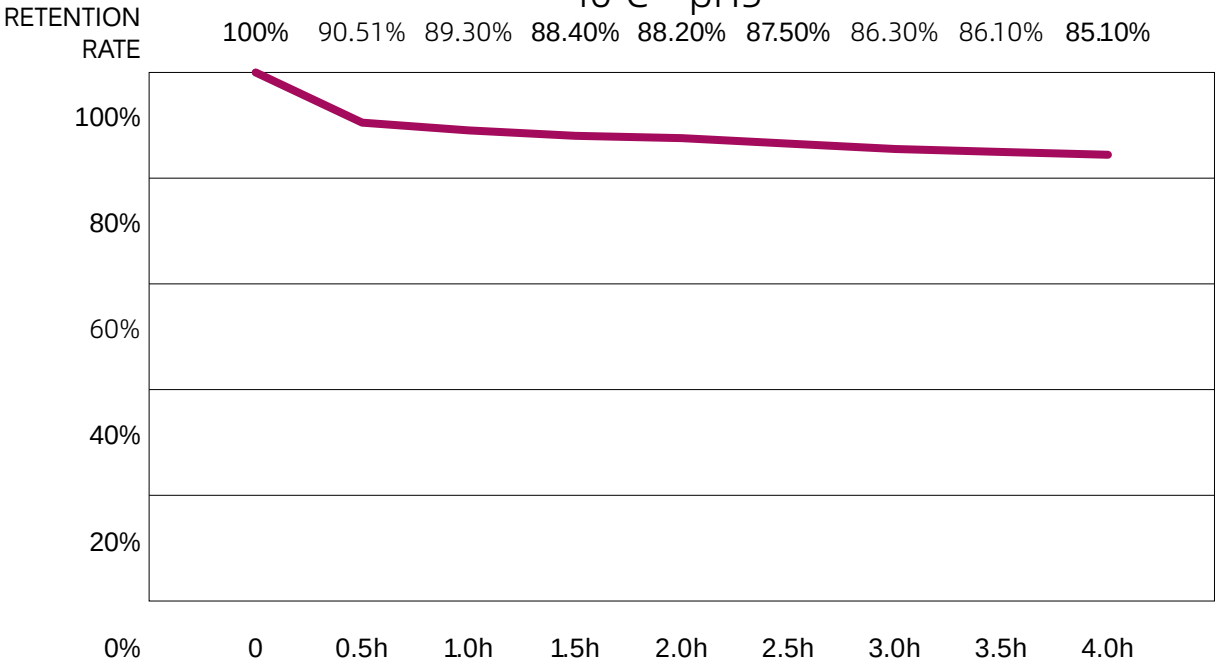
Extraction solvent used:
None

Specification:
E50

Light Stability



Heat Stability



Regulatory Compliance

Code	Description	Comment
21CFR	US Code of Federal Regulations, Title 21 - US FDA	21 CFR § 73.260
CA FDR	Canada Food and Drug Regulations	"Beet Red" List 3 of Permitted Food Colours
NATCOL	NATCOL Code of Practice for the Classification, Manufacturing, Use and Labelling of Colouring Foods (EU)	"Red beet"

Sea Buckthorn Extract

Sensory profile:
Typical

Color:
Yellow

Appearance:
Fine powder

Colouring principle:
Carotenoids

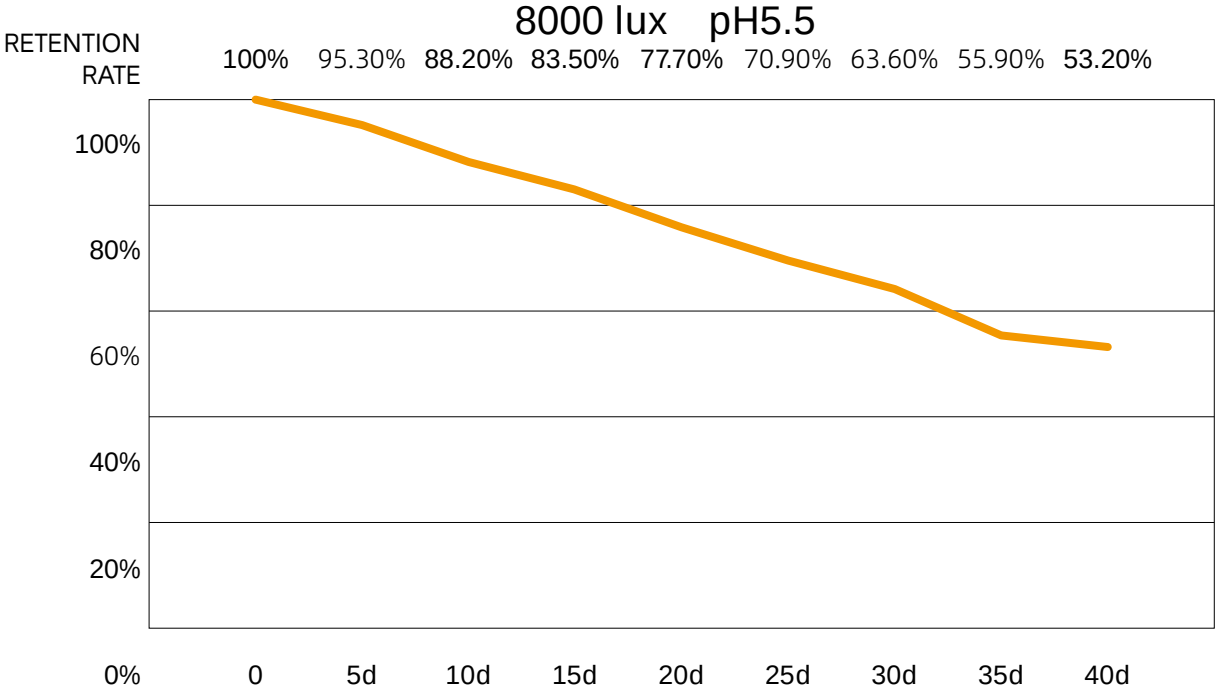
Source used:
Hippophae rhamno -ides L

Part used:
Fruit juice

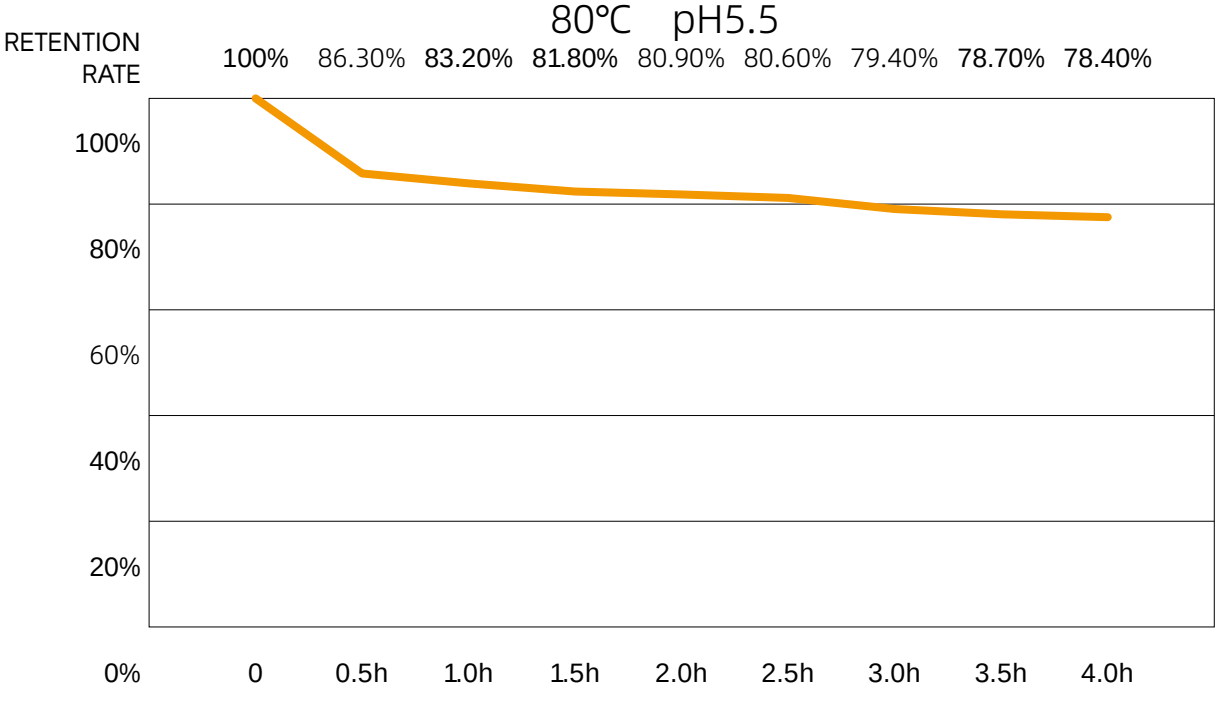
Extraction solvent used:
None

Specification:
E7

Light Stability



Heat Stability



Regulatory Compliance

Code	Description	Comment
21CFR	US Code of Federal Regulations, Title 21 - US FDA	21 CFR § 73.250 Fruit juice
NATCOL	NATCOL Code of Practice for the Classification, Manufacturing, Use and Labelling of Colouring Foods (EU)	"Sea Buckthorn"

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