



Paprika Oleoresins

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	Dark red viscous liquid
Physical Form	Dark red viscous liquid
Odor	Characteristic of paprika, mild, spicy.
Molecular Weight	584.9 g/mol (Capsanthin)
Density / Specific Gravity	1.0-1.05 g/cm ³
Viscosity	Viscous liquid, good flow properties at room temperature.
Refractive Index	1.470 @ 25°C
Assay / Purity	Commercial grades range from 20,000 to over 150,000 Color Units (CU), corresponding to total carotenoid contents of about 1.4% to 10.8%. Capsanthin and capsorubin comprise 30-60% or more of the total carotenoid content.
Chemical Properties	
Ionic Nature	Non-ionic.
Incompatibilities	Strong oxidizing agents.
Hazardous Reactions / Decomposition Products	Under fire conditions, may release carbon oxides and other toxic fumes. High-temperature treatment can lead to thermal degradation, forming byproducts such as xylene and nor-carotenoids.
Thermal Properties	
Melting Point	-5 to 5°C (pour point)
Boiling Point	250-300°C (estimated)
Flash Point	235°C (Closed Cup)
Decomposition Temperature	Avoid strong reheating (> 70°C).
Thermal Stability	Exhibits remarkable stability against heat encountered during food processing and storage. However, high temperatures can accelerate pigment degradation. Encapsulation or addition of antioxidants can improve stability.
Solubility	
Solubility in Water	Insoluble.



Property	Specification
Solubility in Ethanol	Soluble.
Solubility in Glycerol	Insoluble.
Solubility in Oils	Readily soluble in vegetable oil and other oils.

2. Processing Methods

Water-Soluble Emulsion for Food Coloring

This is a water-soluble emulsion of Paprika Oleoresin. DL-Alpha-Tocopherol (a form of Vitamin E) is added as an antioxidant to protect the color from degradation caused by heat, oxygen, and light. Sucrose esters act as an emulsifier to make the oil-soluble oleoresin dispersible in water.

Key Ingredients	Indicative Dosage (% w/w)
Glycerine	40 - 60%
Paprika Oleoresin (E160c)	20 - 30%
Vegetable Oil (Rapeseed)	Varies
Sucrose Esters	< 1%
DL-Alpha-Tocopherol	< 1%

Salad Dressing

A typical emulsified salad dressing. Paprika oleoresin is used at a low level to impart a consistent and appealing orange-red color.

Key Ingredients	Indicative Dosage (% w/w)
Vegetable Oil	35.0%
Water	30.0%
Vinegar (10% Acetic Acid)	15.0%
Sugar	10.0%
Salt	2.0%
Modified Starch	3.0%
Xanthan Gum	0.3%
Spices (e.g., Mustard Powder, Garlic Powder)	4.65%
Paprika Oleoresin	0.05%

3. Dosing by Application



Application	Recommended / Max Dosage
Food - General	Use according to Good Manufacturing Practices (GMP).
Food - Flavoring	0.001% to 0.05%
Food - Coloring (General)	0.01% to 0.05%
Food - Processed Meats, Sauces, Snacks, Condiments	0.05% to 0.1%
Food - Beverages, Juices	0.1% to 0.5% (for water-soluble emulsions)
Cosmetics (Lipsticks, Creams, etc.)	0.1% to 1.0%
Animal Feed	Used to enhance egg yolk and poultry skin color.

The information and data contained herein are believed to be accurate but may not be all inclusive and should only be used as a guide. The information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the product for his particular use and on condition that they assume the risk of the use thereof.

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