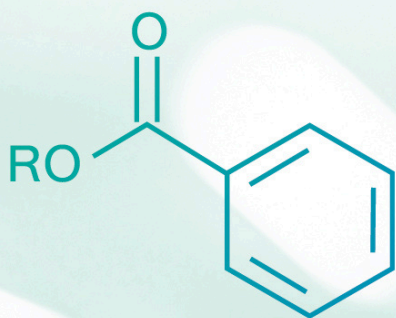


TO BE A LEADING GREEN CHEMICAL COMPANY

By Creating
Sustainable Value

C12-14 Alkyl Benzoate





C12-14 Alkyl Benzoate

PRODUCT DESCRIPTION

C12-14 Alkyl benzoate is Lauryl/Myristyl benzoate, a clear, slightly yellow, almost odorless oil with excellent solubilizing capabilities of crystalline UV filters and pigments dispersion properties. It is made from plant-derived alkyl group and suitable for a wide range of beauty & personal care products particularly in sunscreen, liquid makeup, color cosmetics as well as skin or hair conditioning formulations that leaves a pleasant non-greasy skin feel. It is recommended as a replacement for C12-15 Alkyl benzoate as it provides better UV filters and pigments dispersing effect and less in oiliness.

CAS: 2915-72-2, 70682-72-3
INCI NAME: Lauryl/Myristyl benzoate
MOLECULAR WEIGHT: approx.310 g/mol
SPREADING: Medium
POLARITY: Low



BENEFITS

- Outstanding UV filters and pigments solubilizing capabilities
- Emollient, solvent and moisturizer for all kinds of skincare products
- Provides the skin soft, smooth, non-greasy



USE

Add to formulas as is,
add to oil phase, typical
use level 1-20%.
For external use only.



APPLICATIONS

All kinds of skincare,
suncare products,
various color cosmetics
and liquid makeup



ANIMAL TESTING

No animal testing



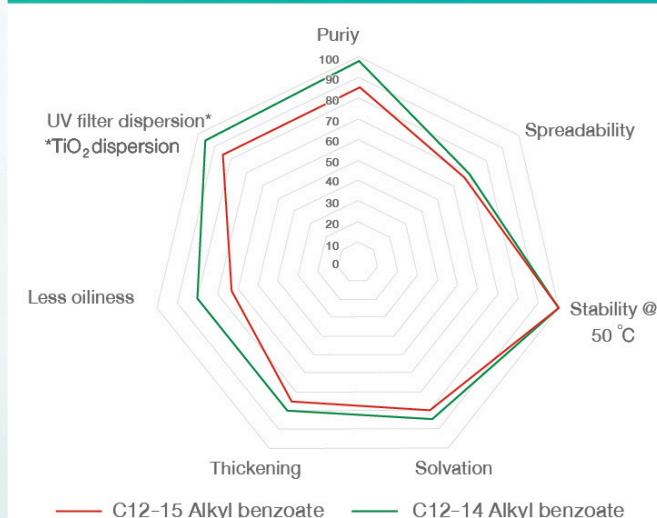
TYPICAL PROPERTIES

Properties	Method	Specification
Assay	In-house	> 98%
Acid number	ISO660	< 0.5
Water (Karl Fisher)	ISO4317	< 0.2%
Saponification value	ISO3657	172-182
Refractive index (20°C)	ISO6320	1.4830-1.4870
Density (20°C)	In-house	0.920-0.940 g/cm ³
Color number (APHA)	ISO6271	< 50
Viscosity (20°C)	In-house	< 30 mPas

STORAGE CONDITIONS

Keep the material in the original unopened containers at ambient temperature. For longer term color stability, it is recommended that the product should be stored under an inert atmosphere. Avoid direct contact to sunlight and higher temperature and moisture. The product can be stored for at least two years.

TYPICAL PROPERTIES



C12-14 ALKYL BENZOATE

- ✓ Bio-Based Alkyl benzoate
- ✓ High Purity
- ✓ Good Spreadability
- ✓ Good Chemical Stability
- ✓ High Solvation
- ✓ Good Thickening Effect
- ✓ Low Oiliness
- ✓ Excellence UV filter Dispersion

% NATURAL

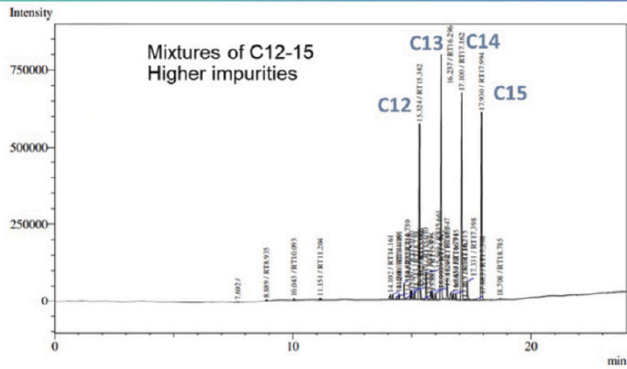
Product	Source of alkyl group in product	% Natural in product
C12-15 Alkyl benzoate	Petroleum	0.00
C12-14 Alkyl benzoate	Plant (Palm)	65.8

C12-14 Alkyl benzoate is Bio-based Alkyl benzoate. It is made from plant-derived alkyl group

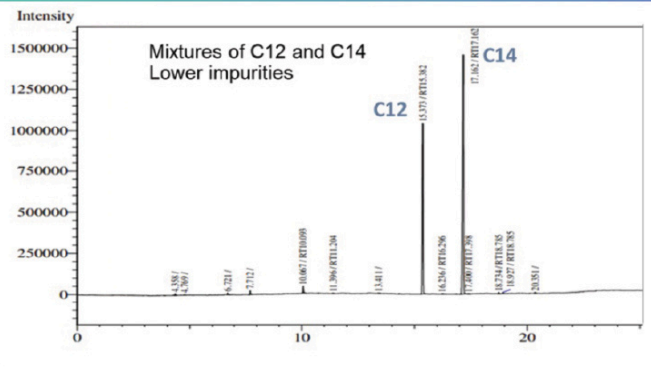


PRODUCT PURITY

C12-15 Alkyl benzoate (Purity 83%)



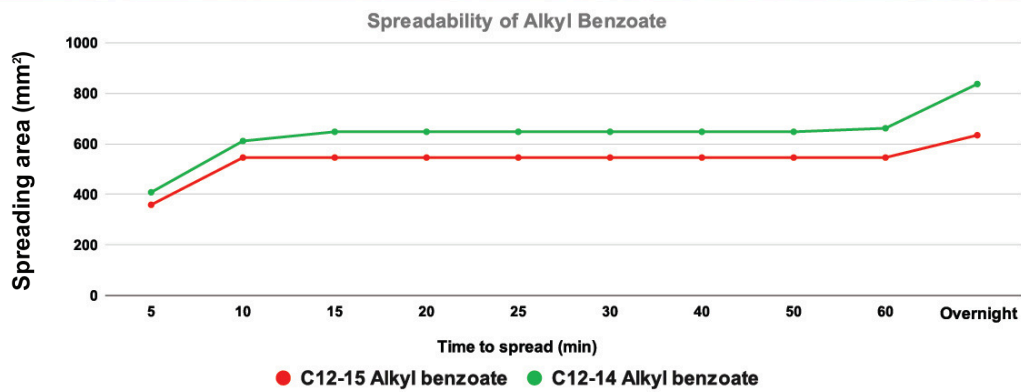
C12-14 Alkyl benzoate (Purity 98%)



- ▶ C12-14 Alkyl benzoate has high purity and low C chain distribution
- ▶ Product purity and C chain distribution directly affects to performance of end-products

SPREADABILITY

Alkyl Benzoate (Spread)



Product	Spreading value (mm ² /10 min)	Spreading
C12-15 Alkyl benzoate	546	Medium
C12-14 Alkyl benzoate	611	Medium

UV FILTER DISPERSION

Dispersion level

Poor Good Exoellent

UV filter	Dispersion level	
	C12-15 Alkyl Benzoate	C12-14 Alkyl Benzoate
Titanium Dioxide (TiO ₂)	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>
Diethylamino Hydroxybenzoyl Hexyl Benzoate (DHHB)	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>
Ethylhexyl Triazone (EHT)	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>
Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine (BEMT)	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>

TiO₂ disperses
in C12-15 Alkyl Benzoate



TiO₂ disperses
in C12-14 Alkyl Benzoate



FORMULATION GUIDE IN BEAUTY & PERSONAL CARE

Facial Sunscreen



Ingredients	% by Weight	Functions
Aqua	70.92	Diluent
Xanthan Gum	0.50	Thickener
Glycerin (GGC)	2.00	Humectant
Propylene Glycol	1.00	Humectant
Disodium EDTA	0.20	Sequestering agent
Cetyl Alcohol (THAIOL 1698)	2.50	Consistency agent
Polysorbate 60	3.00	O/W Emulsifier
Sorbitan Stearate	2.00	O/W Emulsifier
Cyclomethicone	8.00	Texture and spreadability enhancer
C12-14 Alkyl Benzoate	6.00	Pigment dispersion, Solubilizer, Emollient
Micronized Titanium Dioxide	3.00	UV filter
Phenoxyethanol	0.80	Preservative
Triethanolamine	0.08	pH Adjuster

Facial Cream



Ingredients	% by Weight	Functions
Aqua	84.15	Diluent
C12-14 Alkyl Benzoate	5.00	Emollient
Glycerin (GGC)	3.00	Humectant
Mineral Oil	3.00	Emollient
Glyceryl Monostearate	2.00	Consistency Agent
Cetearyl Alcohol (THAIOL 1618)	1.00	Consistency Agent
Ceteareth-20	1.00	O/W Emulsifier
Sodium Polyacrylate	0.80	Emulsifying Polymer
Ethylenediaminetetraacetic Acid	0.05	Chelating Agent
Triethanolamine	q.s	pH Adjuster
Preservative	q.s	Preservative
Perfume	q.s	Perfume

FORMULATION GUIDE IN BEAUTY & PERSONAL CARE



Body Lotion

Ingredients	% by Weight	Functions
Aqua	87.45	Diluent
C12-14 Alkyl Benzoate	4.00	Emollient
Glycerin (GGC)	3.00	Humectant
Mineral Oil	2.00	Emollient
Glyceryl Monostearate	1.00	Consistency Agent
Cetearyl Alcohol (THAIOL 1618)	1.00	Consistency Agent
Ceteareth-20	1.00	O/W Emulsifier
Sodium Polyacrylate	0.50	Emulsifying Polymer
Ethylenediaminetetraacetic Acid	0.05	Chelating Agent
Triethanolamine	q.s	pH Adjuster
Preservative	q.s	Preservative
Perfume	q.s	Perfume



Facial Cleanser

Ingredients	% by Weight	Functions
Aqua	94.15	Diluent
C12-15 Pareth, PEG-40 Hydrogenated Castor Oil, Tocopheryl Acetate	2.50	Antioxidant & Solubilizer
PEG-7 Glyceryl Cocoate	2.00	Solubilizer
Glycerin (GGC)	1.00	Humectant
C12-14 Alkyl Benzoate	0.30	Emollient
Ethylenediaminetetraacetic Acid	0.05	Chelating Agent
Preservative	q.s	Preservative
Perfume	q.s	Perfume

FORMULATION GUIDE IN BEAUTY & PERSONAL CARE

Non-Silicone Shampoo



Ingredients	% by Weight	Functions
Aqua	67.40	Diluent
Sodium Lauryl Ether Sulfate	20.00	Anionic Surfactant
Polyquaternium – 7	4.00	Conditioning Agent
Cocamide DEA	3.00	Thickener
C12-14 Alkyl Benzoate	2.00	Emollient
Cocamidopropyl Betaine	2.00	Amphoteric Surfactant
Lauryl Glucoside	1.50	Nonionic Surfactant
Ethylenediaminetetraacetic Acid	0.10	Chelating Agent
Sodium Chloride	q.s	Thickener
Citric Acid	q.s	pH Adjuster
Preservative	q.s	Preservative
Perfume	q.s	Perfume

Shower Gel



Ingredients	% by Weight	Functions
Aqua	69.90	Diluent
Sodium Lauryl Ether Sulfate	23.00	Anionic Surfactant
Cocamide DEA	3.00	Thickener
C12-14 Alkyl Benzoate	1.50	Emollient
Lauryl Glucoside	1.50	Nonionic Surfactant
Cocamidopropyl Betaine	1.00	Amphoteric Surfactant
Ethylenediaminetetraacetic Acid	0.10	Chelating Agent
Sodium Chloride	q.s	Thickener
Citric Acid	q.s	pH Adjuster
Preservative	q.s	Preservative
Perfume	q.s	Perfume



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