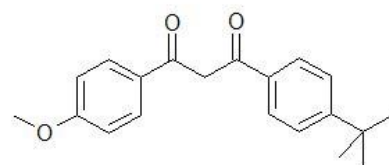


technical datasheet

105844 Eusolex® 9020

UV filter



INCI: Butyl Methoxydibenzoylmethane

USAN: Avobenzone
(United State Adopted Name)

CHEMICAL COMPOSITION:	Chemical name	CAS NO.	Chem. Formula
	1-(4- <i>tert</i> -Butylphenyl)-3-(4-methoxyphenyl)- propane-1,3-dione	70356-09-1	C ₂₀ H ₂₂ O ₃

APPEARANCE: Off-white to yellowish crystalline powder

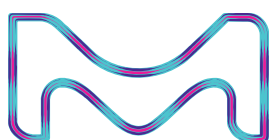
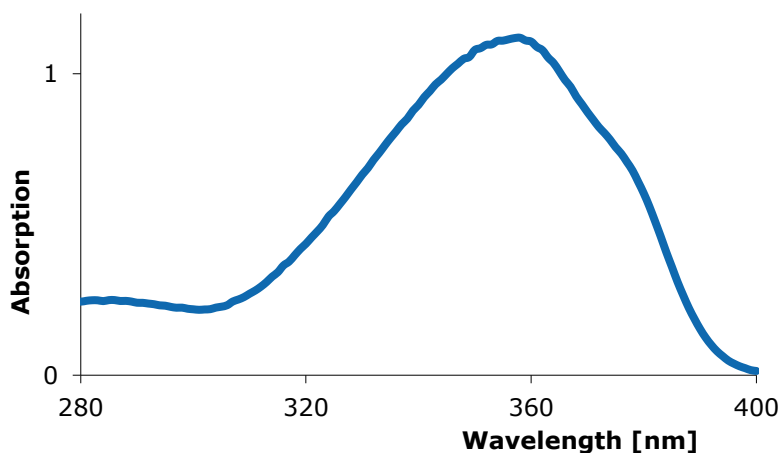
ODOR: Weak characteristic odor

FUNCTION: UVA filter
λ_{max} = 358 nm (1 mg/100 ml 2-Propanol)

TECHNICAL ASPECTS:

Solubility: Oil soluble – see solubility table
Melting point: 81 – 86 °C
Extinction coefficient: 34,720

UV abs. spectrum
(1mg/100ml 2-Propanol,
1cm cuvette)



STORAGE: Tightly closed. Dry. Protected from light.
Storage temperature: no restriction

SHELF LIFE: Minimum 5 years

APPLICATIONS: Sun care
Daily skin care; Skin whitening products
Decorative cosmetics with sun protection
Hair care

USE LEVEL: 1-3 % for low to medium SPF products
Up to 5% for high SPF products; Observe local regulations

FORMULATION ASPECTS: Incorporation into the oil phase.
Ensure that Eusolex® 9020 is properly solubilized and does not re-crystallize in the formulation.

Compatibility:
Ions of heavy metals may induce colored complexes. Use a complexing agent like RonaCare® Disodium EDTA to avoid complexation.
Stearates or salts of Al-, Zinc- or Magnesium have to be avoided due to sparingly soluble precipitates.
Formaldehyde and formaldehyde donating preservatives may induce precipitations. Avoid these combinations.

Options to photo stabilize Eusolex® 9020:
Triplet energy quenchers (e.g. Euxolex OCR), specific antioxidants (e.g. RonaCare® AP, Oxyxex® ST Liquid), Eusolex® T-AVO

SOLUBILITY

Name / INCI	solubility
Eusolex® OCR (Octocrylene)	22 %
Eusolex® HMS (Homosalate)	15-19 %
Eusolex® OS (Ethylhexyl Salicylate)	16-18 %
RonaCare® AP (Bis-Ethylhexyl Hydroxydimethoxy Benzylmalonate)	23-26 %
Oxyxex® ST Liquid (Diethylhexyl Syringylidene Malonate, Caprylic/ Capric Triglyceride)	20-25 %
IR3535® (Ethyl Butylacetyl aminopropionate)	26 %
Dibutyl Adipate	20 %
Cocoglycerides	15 %
C ₁₂ -C ₁₅ Alkyl Benzoate	13 %
Capric/Caprylic Triglyceride	11 %
Dicaprylyl Ether	10 %
Ethylhexyl Palmitate	7 %
Prunus Amygdalus (Almond oil)	5 %
Buxus Chinensis (Jojoba oil)	4 %
Isostearyl Isostearate	3 %
Octyldodecanol	2 %
Mineral Oil	1 %
Dimethicone	<< 0,1 %



KEY PROPERTIES/ CLAIMS: Essential UV filter to provide distinct UVA protection and ensure broad spectrum properties in all kind of cosmetic formulations.
Long history of safe use
Worldwide approval

DATE OF ISSUE: September 2018

NOTES For further information, see Specification and Safety Data Sheet and RonaProfile (Cosmetic Ingredient Dossier)

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