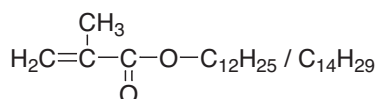


Lauryl Methacrylate 1214 (LMA 1214)

Methacrylic acid ester for manufacturing polymers and for use as a feedstock for syntheses



CAS No.: 142-90-5 (C₁₂)
2549-53-3 (C₁₄)
2495-27-4 (C₁₆)

EINECS-No.: 205-570-6 (C₁₂)
219-835-9 (C₁₄)

Molar mass: 254.4 kg/kmol (C₁₂)
282.5 kg/kmol (C₁₄)
310.5 kg/kmol (C₁₆)

Molecular formular

C₁₆H₃₆O₂/C₁₈H₃₄O₂

Product specification

Assay (Gas chromatography)	min. 98 %
Water content (ASTM E 203)	max. 0.2 %
Color on dispatch (APHA, ASTM D 1209)	max. 100
Standard stabilization (HPLC)	120 ± 30 ppm MEHQ

The aforementioned data shall constitute the agreed contractual quality of the product at the time of passing of risk. The data are controlled at regular intervals as part of our quality assurance program. Neither these data nor the properties of product specimens shall imply any legally binding guarantee of certain properties or of fitness for a specific purpose. No liability of ours can be derived therefrom.

Other properties

Solvent	max. 0.5 %
Methacrylic acid (DIN EN ISO 2114)	max. 0.02 %
C ₁₂ ester, (GC)	62–78 %
C ₁₄ ester, (GC)	22–38 %
C ₁₆ ester, (GC)	0–10 %
Appearance	colorless
Physical form	clear liquid
Density at 20 °C	0.868 g/cm ³
Boiling point	308 °C at 1013.25 hPa 160 °C at 9.33 hPa
Viscosity at 20 °C	6 mPa · s
Flash point	> 110 °C
Functionality, theoretical	1
Freezing point	–22 °C
T _g , homopolymer	–50 °C

Labelling according to local Directives

see MSDS

Applications

Lauryl Methacrylate 1214 (LMA 1214) forms homopolymers and copolymers. Copolymers of Lauryl Methacrylate 1214 (LMA 1214) can be prepared with acrylic acid and its salts, amides and esters, and with methacrylates, acrylonitrile, maleic acid esters, vinyl acetate, vinyl chloride, vinylidene chloride, styrene, butadiene, unsaturated polyesters and drying oils, etc.

Lauryl Methacrylate 1214 (LMA 1214) is also a very useful feedstock for chemical syntheses, because it readily undergoes addition reactions with a wide variety of organic and inorganic compounds. Lauryl Methacrylate 1214 (LMA 1214) is used in oil additives as flow improver, in floor waxes, textile and metal coatings, varnishes, adhesives, low temperature caulks and sealants. Lauryl Methacrylate 1214 (LMA 1214) is incorporated as co-monomer in paint resins, elastomers and plastics. Lauryl Methacrylate 1214 (LMA 1214) is used as stabilizer in non-aqueous dispersions and inks. Lauryl Methacrylate 1214 (LMA 1214) is also employed in electronics and encapsulated products, or as chemical intermediate.

Features & Benefits

Lauryl Methacrylate 1214 (LMA 1214) is a water insoluble, low volatility, monofunctional methacrylate monomer with a long, hydrophobic side chain.

Lauryl Methacrylate 1214 (LMA 1214) is a blend of natural C₁₂, C₁₄, and C₁₆ alcohol methacrylates.

Lauryl Methacrylate 1214 (LMA 1214) can be used to impart the following properties to polymers:

- Adhesion
- Weatherability
- Low shrinkage
- Flexibility
- Water resistance
- Improved impact strength
- Hydrophobicity

Storage & Handling

In order to prevent polymerization, Lauryl Methacrylate 1214 (LMA 1214) must always be stored under air, and never under inert gases. The presence of oxygen is required for the stabilizer to function effectively. For extended storage periods over 4 weeks it is advisable to replenish the dissolved oxygen content. The storage temperature must not exceed 35 °C to prevent premature quality degradation. If the above mentioned conditions are met a storage stability of one year can be expected upon delivery. In order to minimize the likelihood of overstorage, the storage procedure should strictly follow the "first-in-first-out" principle.

The preferred construction material for tanks and pipes is stainless steel. Carbon steel is also acceptable, although the formation of rust may be a problem with product quality (color). Iron(III)-ions have been shown to be a weak polymerization initiator. If carbon steel is to be used, special procedures should be used to prepare the tank for use. Storage tanks, pumps and pipes should be earthed.

Safety

A Safety Data Sheet has been compiled for Lauryl Methacrylate 1214 (LMA 1214) that contains up-to-date information on questions relevant to safety.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

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