EASTMAN

Technical Data Sheet

Eastman™ 1,4-CHDA-HP

Chemical Synonym

Cyclohexanedicarboxylic Acid

Applications

- Automotive
- Building materials
- Coil coatings
- Construction chemicals
- Electronic connectors
- Food flavors & food fragrances
- Intermediates
- Kitchen & bath
- Metal coatings
- Paints & coatings
- Pharmaceutical chemicals
- Process additives
- Protective coatings
- Truck/bus/rv
- Wind energy

Key Attributes

- An excellent combination of hardness and flexibility in one monomer
- Better gloss retention and yellowing resistance
- Better hydrolytic stability
- Excellent thermal stability for low resin color
- High solubility in molten glycols
- Improved corrosion, stain, chemical, and detergent resistance
- Reduced "orange peel" in powder coatings

Product Description

Eastman™ 1,4-CHDA-HP (1,4-cyclohexanedicarboxylic acid high purity) is a cycloaliphatic diacid offering many unique performance properties to polyester resins for coatings and fiberglass-reinforced plastics. It is also ideally suited improving performance of waterborne, high solids, powder coatings and coil coating applications. Its symmetrical, 1,4-substituted cycloaliphatic ring brings properties ideally suited for high-performance applications in automotive, transportation, industrial maintenance, aerospace, architectural, appliance, and general metal coatings, and gel coats. CHDA is a mixture of cis and trans isomers. It is supplied as white to off-white powder in various package sizes. Eastman also manufactures DMCD, which is the dimethyl ester of CHDA.

Typical Properties

Property	Typical Value, Units
General	
Molecular Weight	172.2
Empirical Formula	$C_8H_{12}O_4$
Appearance	White to Off-White Powder
Assay	99+ wt % min.
cis Isomer	65 wt % min.
Iron	<15 ppm
Water	1.0 wt % max.
Solubility in Water, @ 20°C	1 wt %
Specific Gravity @ 20°C/20°C	1.38
Bulk Density	0.56 g/mL (35 lb/ft^3)
Melting Point[a]	164-167 °C (327-333 °F)
Flash Point	

Cleveland Open Cup	235 °C (455 °F)
Chemical Inventory Listings[b]	TSCA (USA), EINECS (Europe)

[a]*Melts quickly to give a hazy liquid due to 30-40% of the high-melting trans isomer. At this melting range, isomerization of the cis to trans begins to take place. Since the trans isomer melts above 300°C, a well defined melting point is not observable.*
[b]*MITI (Japan), AICS (Australia)*

Comments

Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

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