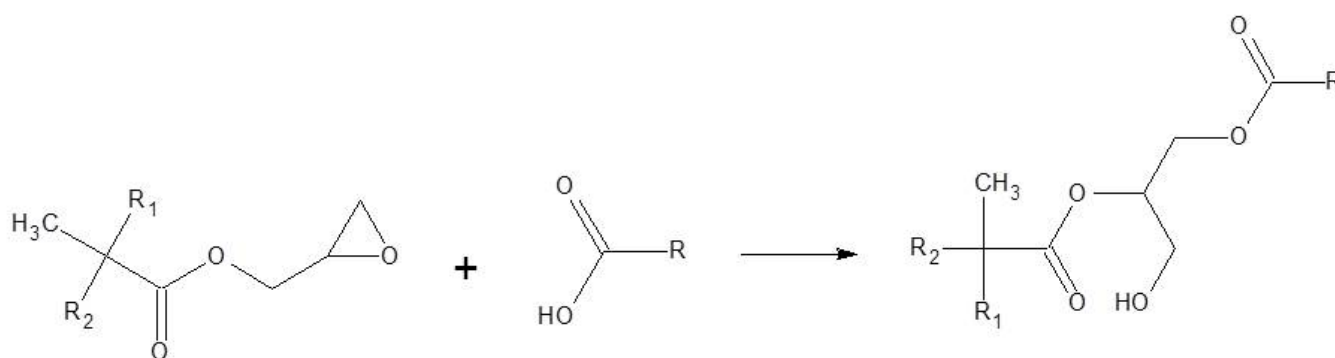


Technical Data Sheet

Duresta™ 10GP

Description

Duresta 10GP acid scavenger is the glycidyl ester of a highly branched monocarboxylic acid with an excellent reactivity towards carboxylic acids:



Duresta 10GP

Carboxylic acid

Ester

R, R₁ and R₂ are branched or linear alkyl groups

Applications

Duresta 10GP glycidyl ester is used as an acid scavenger to reduce the acid value of esters, polyesters resins and polymers. It is usually dosed to these products at the end of their chemical synthesis when they are still at elevated temperature. The unique reaction characteristics and properties make Duresta 10GP glycidyl ester attractive for a wide variety of applications, particularly those requiring very low acid values such as synthetic lubricants, high performance polyesters and specialty ester based polymers. Typically, the derived products have an improved hydrolytic stability due to their extremely low acid value.

Usually, 4.3 to 30 mg/g Duresta 10GP glycidyl ester is used per mg/g KOH of acid value reduction desired. Excess product may be removed by vacuum distillation¹.

Duresta 10GP

<https://www.hexion.com/en-US/product/duresta-10gp>

Generated: January 20, 2020

Issue Date: 5/31/2016 4:00:00 AM

Revision: 7/5/2018 4:00:00 PM

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Sales Specifications

Property	Value	Unit	Test Method
Appearance	Clear liquid, free from suspended matter		Visual
Color	35 max.	Pt-Co	ASTMD1209
Epoxy Group Content*	4100 - 4250	mmol/kg	SMS 2026
Water Content	0.1 max	% m/m	ASTMD4672

*Epoxy Equivalent Weight, 235 – 244 g/mol

Typical Properties

Property	Value	Unit	Test Method
Boiling Range 5%-90% (v/v) at 101.3 kPa	251 - 278	°C	ASTMD86
Density At t (When 15°C = t = 40°C)	0.9760-0.00065 t	kg/L	ASTMD4052
Flash Point (PMCC)	126	°C	ASTMD93
Molecular Formula	C13H24O3		Visual
Solidification point	below -60	°C	ASTMD97
Solubility of Cardura E10P in Water at 20°C	0.01	% m/m	
Solubility of water in Cardura E10P at 20°C	0.7	% m/m	
Specific Heat at 25°C	1.733	kJ/kg °C	ASTMD3418
Thermal Conductivity at 25°C	0.142	W/m °C	
Vapour Pressure at 37.8°C	0.9	kPa	ASTMD323
Viscosity at 25°C	7.13	mPa.s	ASTMD445
Viscosity at 100°C	1.31	mPa.s	ASTMD445
Viscosity at 125°C	0.94	mPa.s	ASTMD445
Viscosity at 150°C	0.72	mPa.s	ASTMD445

Test Methods

ASTM Standards are published by the American Society for Testing and Materials, 100 Barr Harbor Drive, west Conshohocken, PA 19428-2959, USA or can be found under www.astm.org.

ISO standards are published under the supervision of the International Standards Organization and are available from National Standards Institutes.

SMS methods mentioned are available from Hexion Europe B.V.

Handling Precautions

For more detailed information on all aspects relating to Health, Safety and Handling, reference should be made to the Safety Data Sheet of Duresta 10GP glycidyl ester, which is available from your local Hexion representative or distributor. The precautions advised therein should be strictly observed.

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Transportation and Storage

Information on transport, storage, labeling, suitable materials for tank construction, etc, is available from Hexion, via local representative or distributor.

Duresta 10GP glycidyl ester should be stored at ambient temperature (min 5 °C - max 50 °C) in conditions such that moisture is excluded, in the original containers kept tightly closed. Under these conditions, the shelf life should be three years starting from the manufactured date.

¹⁾ In case free Duresta 10GP glycidyl ester level is >1%, the product should be labeled in line with GHS guidelines and in case free Duresta 10GP glycidyl ester level > 0.1% it should be mentioned in the SDS.

Contact Information

For contact information about this product, go to www.hexion.com and visit Versatic Derivatives product pages. Here you will have option to choose your region to find a representative in your area.

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