HEXION

Technical Data Sheet

Re-issued September 2007

EPON™ Resin 1007F

Product Description

EPON™ Resin 1007F is a moderately high molecular weight solid epoxy resin derived from a liquid epoxy resin and bisphenol-A. This resin is used extensively as a vehicle in high performance industrial baking finishes. In these coatings the EPON Resin 1007F is usually reacted with urea formaldehyde or phenol-formaldehyde resins to develop the desired film properties. Coatings of this type exhibit outstanding flexibility and adhesion as well as exceptional resistance to chemicals and solvents. Some of the more important applications for EPON Resin 1007F/urea-formaldehyde or phenol formaldehyde coatings are linings for metal containers, appliance primers, metal furniture finishes and clear coatings for brass hardware and cosmetic cases. EPON Resin 1007F also finds application in powder coatings and may be used as a partial replacement for other EPON Resins in amine or polyamide cured two package coatings. In addition, this product can be reacted with vegetable oil acids and isocyanate curing agents to produce epoxy resin esters and urethane coatings, respectively.

Benefits

- If desired, EPON Resin 1007F can be supplied in very large lots (greater than 100M pounds) with uniform properties.
- This resin is extremely clean. It is substantially free from extraneous materials, rendering it suitable in certain powder coating applications.
- This product imparts unique melt viscosity characteristics to hot melt adhesives, molding powders, and powder coatings.
- EPON Resin 1007F provides special solution viscosity and reactivity properties when combined with other EPON Resins in air dry amine or polyamide cured coatings.

Sales Specification

Property	Units	Value	Test Method/Standard
Weight per Epoxide	g/eq	1,700-2,300	ASTM D1652
Viscosity at 25°C	cP	50-100	ASTM D445
Color	Pt-Co	200	ASTM D1209

Typical Properties

Property	Units	Value	Test Method/Standard

Esterification equivalent weight[1]		200	
Weight per gallon @ 20 °C	lbs	10.3	
Melting point	°C	120-130	ASTM D3461
Flash point, Setaflash	°F	>200	ASTM D3278
Bulk Density	lbs./ft.^{3}	36-40	
Hydroxyl content		0.33	
Sodium content	ppm	0-2	

[1]Grams of resin required to esterify completely one gram-equivalent of monobasic acid, e.g., 280 grams of C18 fatty acid or 60 grams of acetic acid.
[9]Plant Method HC-692A Determination of Sodium in EPON Resins - MIBK Solutions (Extraction-Ion Selective Electrode Method

Processing/How to use

Identification and Classification
Chemical Abstract Service Registry Number: 25036-25-3 (EPA/TSCA inventory designation)

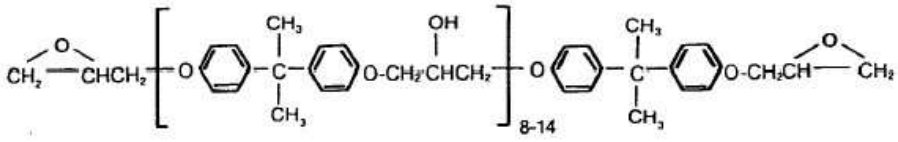
MSDS Number: 186

Chemical Designations:

• 2,2-bis(p-glycidyloxyphenyl) propane condensation product with 2,2-bis(p-hydroxyphenyl) propane and similar isomers.

• Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis(oxirane).

Structural formula, base resin:



Packaging, Storage and Shipping
• EPON Resin 1007F is a stable material produced in flake form and packaged in a 50-pound net three ply natural kraft paper bag. The product is not prone to sintering or "blocking". It should be stored in a covered area protected against moisture.

• EPON Resin 1007F is also available in flexible intermediate bulk containers (FIBCs) holding 2000-pounds

net of solid resin. The weighing accuracy of a 2000 pound container is ± 0.5 percent.

• EPON Resin 1007F is not a hazardous material according to the Department of Transportation regulations (Code of Federal Regulations, Title 49).

FDA Status
For further information on the FDA status of our products, please refer to our Application Bulletin - FDA Information Indirect Food Contact Applications.

Safety, Storage & Handling
Please refer to the MSDS for the most current Safety and Handling information.

Please refer to the Hexion web site for Shelf Life and recommended Storage information.

Exposure to these materials should be minimized and avoided, if feasible, through the observance of proper precautions, use of appropriate engineering controls and proper personal protective clothing and equipment, and adherence to proper handling procedures. **None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheet (MSDS) for these and all other products being used are understood by all persons who will work with them.** Questions and requests for information on Hexion Inc. ("Hexion") products should be directed to your Hexion sales representative, or the nearest Hexion sales office. Information and MSDSs on non-Hexion products should be obtained from the respective manufacturer.

Packaging
Available in bulk and drum quantities.

Contact Information
For product prices, availability, or order placement, please contact customer service:
www.hexion.com/Contacts/

For literature and technical assistance, visit our website at: www.hexion.com

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