



UCAR™ VROH

Solution Vinyl Resin

Description

UCAR™ VROH Solution Vinyl Resin is a low molecular weight, hydroxyl-functional terpolymer comprised of vinyl chloride, vinyl acetate, and a hydroxyalkyl acrylate. It is supplied as a powder. The vinyl chloride content is ~81% while the hydroxyl level is ~2.0%.

Introduction

UCAR VROH Solution Vinyl Resin is crosslinkable with amino resins and polyisocyanates and is also compatible with a wide variety of resins including polyesters and acrylics. This resin has good adhesion to vinyl, cellulosic and treated polyester and PE substrates. This resin provides solutions which have lower viscosity and higher solids than either UCAR VAGF Solution Vinyl Resin or UCAR VAGC Solution Vinyl Resin. It also has a high tolerance for alcohols and aliphatic hydrocarbon diluents.

Typical Applications

This product is suitable for use in applications such as:

- Clear Coating on Various Substrates Including Metal, Wood, Plastic, Paper, Film, Foil, and Fabric
- Pigmented Coatings on Metal, Wood, Plastic, Paper, Film, Foil, and Fabric
- Useful as a Polyol in 2-K Polyurethane Coatings.
- Marine and Maintenance Coatings

This product is not intended for food contact applications.

Typical Properties

Property ⁽¹⁾	Value	Method
Molecular Weight	15000	DowM
Hydroxyl Value	66	DowM
Hydroxyl Equivalent Weight (g/eq)	850	DowM
Inherent Viscosity (dL/g)	0.30	ASTM D-1243
Specific Gravity	1.37	ASTM D-792
Glass Transition Temperature (°C)	65	DowM
Solution Viscosity @ 25°C (mPa s)	70 ⁽²⁾	DowM
K-Value	43	Calculated
Degree of Polymerization	200	Calculated
Composition (wt%)		
Vinyl Chloride	81	DowM
Vinyl Acetate	4	DowM
Hydroxyalkyl Acrylate	15	DowM

(1) Typical properties, not to be construed as specifications.

(2) 30% solids in MEK.

Safety and Handling

The Dow Chemical Company provides its customers with a product specific Material Safety Data Sheet (MSDS) or Safety Data Sheet (SDS) to cover potential health effects, safe handling, storage, use and disposal information. Dow strongly encourages its customers to review the MSDS or SDS on its products and other materials prior to their use.

UCAR™ VROH Solution Vinyl Resin is normally supplied as a powder in multi-ply paper bags. It may also be supplied in bulk rail cars or hopper trucks. The resin should be stored in a dry place in its original closed packaging.

UCAR VROH Solution Vinyl Resin has a shelf life of approximately twelve months when stored at 24°C (75°F) and low humidity. When stored at higher temperatures or high humidity some product discoloration may result.

For further handling information consult the Dow brochure entitled, *UCAR Solution Vinyl Resin Storage and Handling*, Form. No. 322-00054.

Product Stewardship

The Dow Chemical Company has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis of our Product Stewardship philosophy by which we assess the health and environmental information on our products and then take the appropriate steps to protect employee and public health and the environment. The Dow Chemical Company has enduring commitments to Responsible Care® in the management of chemicals worldwide. Our Product Stewardship program rests with every individual involved with Dow products from the initial concept and research to the manufacture, sale, distribution, and disposal of each product.

Customer Notice

Dow encourages its customers and potential users of Dow products to review their applications for such products from the standpoint of human health and environmental quality. To help ensure that Dow products are not used in ways for which they were not intended or tested, Dow personnel are available to assist customers in dealing with ecological and product safety considerations. Your Dow sales representative can arrange for the proper contacts. Dow literature, including MSDS or SDS, should be consulted prior to the use of Dow products.

Medical Application Policy

Dow will not knowingly sell or sample any product or service ("Product") into any commercial or developmental application that is intended for:

- (a) permanent (long term) contact with internal body fluids or internal body tissues. Long term is a use which exceeds 72 continuous hours (except 30 days for PELLETHANE™ Polyurethane Elastomers);
- (b) use in cardiac prosthetic devices regardless of the length of time involved (cardiac prosthetic devices include, but are not limited to, pacemaker leads and devices, artificial hearts, heart valves, intra-aortic balloons and control systems and ventricular bypass assisted devices);
- (c) use as a critical component in medical devices that support or sustain human life; or
- (d) use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction.

Additionally, all Products intended for use in pharmaceutical applications must pass the then current Pharmaceutical Liability Guidelines. For additional information please contact your regular Dow representative.

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UCAR VROH Solution Vinyl Resin

Form No. 322-00118-0607X-WC

Food Contact Applications

This product is not intended for food contact applications. This resin does not comply with the U.S. Food, Drugs and Cosmetics Act as amended under Food Additive Regulation 21 CFR 175.300.

One or more of the starting monomers of this UCAR™ Solution Vinyl Resin are currently not listed on European inventory lists of authorized monomers for food contact materials.

Regulatory Status

UCAR VROH Solution Vinyl Resin is a polymer according to the definition in Directive 92/32/EEC (7th Amendment to Directive 67/548/EEC) and all starting materials and intentional additives are listed in the European Inventory of Existing Chemical Substances (EINECS).

For more information on the regulatory status of this product, please refer to the MSDS or SDS for this product.

Chemical Inventory Listing

CAS Number ⁽¹⁾	39317-41-4	
Europe	EINECS	Polymer
United States	TSCA	39317-41-4
Canada	DSL	39317-41-4
Australia	AICS	Complies
Japan	ENCS/ISHL	ISHL: 9-1797
Korea	KECI	Complies
Philippines	PICCS	Complies
China	SEPA	Complies

(1) Please refer to the MSDS or SDS for this product to ensure this CAS number is consistent with the product(s) you use.

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