



Product Data Sheet

PARALOID™ A-21 Thermoplastic Solution Resin (30%)

For Use in Lacquers, Coatings, Inks, Varnishes and Top Coats

Introduction

PARALOID™ A-21 Thermoplastic Solution Resin (30%) is a very hard methyl methacrylate type polymer with enhanced adhesion properties. It is provided as a 30% solution in a toluene/butanol system. The polymer is also available in a solid grade form. Lacquers formulated with PARALOID™ A-21 Thermoplastic Solution Resin (30%) possess excellent intercoat adhesion, hardness, and exterior durability. PARALOID™ A-21 Thermoplastic Solution Resin (30%) will air-dry rapidly to give clear, colorless films that have excellent resistance to yellowing.

This durable resin is similar to PARALOID™ A-101 Thermoplastic Solution Resin and PARALOID™ A-11 Solid Grade Thermoplastic Acrylic Resin, but has better adhesion characteristics.

PARALOID™ A-21 Thermoplastic Solution Resin (30%) is recommended for lacquers; vinyl and metal clear coatings; gravure inks and overprint varnishes; top coats for plastic; general industrial finishes, and auto refinishing

Typical Physical Properties¹

| Property | Typical Values |
|---------------------------------------|-----------------------|
| Solids Content, Weight, & | 30 |
| Solvents | Toluene/Butanol 90/10 |
| Density, lbs/gal, (25°C) | 7.8 |
| Viscosity, cPs (25°C) | 250–560 |
| Flash Point, °C | 7.8 SFCC |
| Molecular Weight (Wt. Avg.) | 120,000 |
| Solubility Parameter | 9.4 |
| Tg, °C | 105 |
| Ultimate Hardness of Clear Films, KHN | 21–22 |
| Chemical Composition | MMA polymer |

1. These properties are typical but do not constitute specifications

Health and Safety Information

The Dow Chemical Company Material Safety Data Sheets (MSDS) contain pertinent information that you may need to protect your employees and customers against any known health or safety hazards associated with our products.

Under the OSHA Hazard Communication Standard, workers must have access to and understand MSDS on all hazardous substances to which they are exposed. Thus, it is important that you provide appropriate training and information to your employees and make sure they have available to them MSDS on any hazardous products in their workplace.

The Dow Chemical Company sends MSDS on non-OSHA hazardous as well as OSHA-hazardous products to its customers upon initial shipment (including samples) of all its products (whether or not they are considered OSHA-hazardous). If you do not have access to one of these MSDS, please contact your local Dow representative for an additional copy.

Updated MSDS are sent upon revision to all customers of record. In addition, MSDS are sent annually to all customers receiving products deemed hazardous under the Superfund Amendments and Reauthorization Act.

MSDS should be obtained from your suppliers of other materials recommended in this bulletin.

The Dow Chemical Company is a member of the American Chemistry Council and is committed to ACC's Responsible Care Program.

Handling Precautions

Before using this product, consult the Material Safety Data Sheet (MSDS)/Safety Data Sheet (SDS) for details on product hazards, recommended handling precautions and product storage.

CAUTION! Keep combustible and/or flammable products and their vapors away from heat, sparks, flames and other sources of ignition including static discharge. Processing or operating at temperatures near or above product flashpoint may pose a fire hazard. Use appropriate grounding and bonding techniques to manage static discharge hazards.

CAUTION! Failure to maintain proper volume level when using immersion heaters can expose tank and solution to excessive heat resulting in a possible combustion hazard, particularly when plastic tanks are used.

Storage

Store products in tightly closed original containers at temperatures recommended on the product label.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow 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 for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products – from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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