



INTERVIA™ 2011 REMOVER

For Advanced Packaging Applications

Regional Product Availability

- North America
- Europe, Middle East and Africa
- Latin America
- Asia-Pacific

Description

INTERVIA 2011 REMOVER is a mixture of pure organic solvents specifically formulated to remove all MICROPOSIT™, MEGAPOSIT™ and INTERVIA™PHOTORESISTS. It is particularly recommended for use in applications where the photoresist has seen high temperatures, strong etchants, or other harsh processing conditions.

Advantages

Extended Bath Life

- High bath capacity
- Low bath evaporation rate
- High solvent boiling point

Substrate Compatibility

- Improved end product reliability
- Metal-Ion-Free

Ease of Operation

- Rinses completely in water
- Room temperature bath operation for photoresist mask rework

Environmental and Health Advantages

- Compatible with current waste treatment principles
- Cellosolve¹ acetate, xylene and acetone free
- No phenols, phosphates, fluorides, chromates, or chlorinated hydrocarbons

¹Registered trademark of Union Carbide Corporation

Instructions for Use

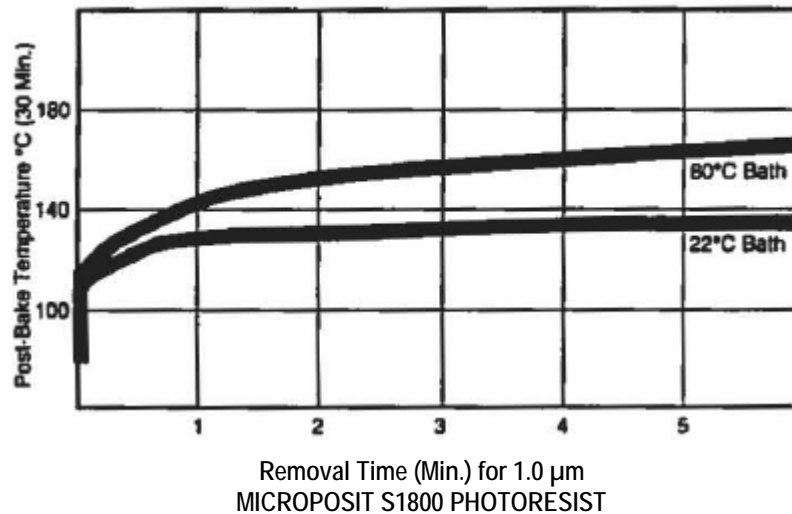
I. Bath Make-up

INTERVIA 2011 Remover is supplied as a ready to use solution. Do not dilute. A two-bath system is recommended: the first bath to remove the bulk of the photoresist, the second bath to remove any remaining traces of photoresist.

II. Temperature

The recommended operating temperature depends on the thermal processing history of the photoresist. For resist hard bake processing which does not exceed 130°C, room-temperature bath operation has been found adequate in most cases. With hard bakes up to 160°C, 80°C bath operation will remove one micron of MICROPOSIT S1800 PHOTORESIST in less than five minutes in most instances. Refer to **Figure 1**. For hard bakes up to, but not exceeding 180°C, the same photoresist film is usually stripped in less than 10 minutes. INTERVIA 2011 REMOVER may be used at higher operating temperatures with caution.

Figure 1
EFFECT OF POST-BAKE TEMPERATURE ON RATE OF PHOTORESIST REMOVAL WITH INTERVIA 2011 REMOVER



CAUTION! Since the flash point of INTERVIA 2011 REMOVER is 88°C, closed cup, it may be used at temperatures up to approximately 80°C using routine cautions pertaining to combustible liquids. If INTERVIA 2011 REMOVER is used at an operating temperature in excess of 80°C, a covered stripping tank equipped for use with combustible materials should be used. INTERVIA 2011 REMOVER should not be used at an operating temperature in excess of its boiling temperature of approximately 200°C.

Any stripping operation at temperatures above 80°C should be permitted only in suitable protected equipment and work areas. Sparks and flames must be avoided in the work area. A well-ventilated hood, designed and operated according to National Fire Prevention Association (NFPA) standards for flammable vapors, is essential.

All electrical controls which are potential spark sources should be remote or nonsparking, (i.e. hermetically sealed switches) or adequately purged with an inert gas, such as nitrogen.

To avoid undetected excessive operating temperatures, visual temperature read-outs and upper-limit temperature switches can be employed on the stripping tank heating system.

NOTE: Users should consult equipment suppliers and their own Safety Department as to the safest method of heating.

III. Time

Immerse substrates for five to ten minutes in each bath of a two-bath system (actual removal time and rate determined by thermal processing history).

IV. Agitation

Good mechanical agitation of substrates is recommended to allow physical transport of dissolved photoresist away from the substrate. If agitation is impractical, an isopropyl alcohol rinse may be necessary to avoid potential scumming.

Instructions for Use (Cont'd)

V. Rinse

Cascade rinse with deionized water, followed by drying in a rinser/dryer is recommended for best processing results.

VI. Bath Control

Replaces baths with fresh solution if stripping time becomes excessive. Bath capacity is typically greater than 3,000 four-inch wafers coated with 2.1 µm MICROPOSIT S1800 PHOTORESIST per gallon of INTERVIA 2011 REMOVER.

The REMOVER is compatible with the following materials:

Aluminum	Polysilicon
Chrome	Silicon
Copper	Silicon Oxide
Gallium Arsenide	Silicon Nitride
Gold	Silver
Indium Oxide	Stainless Steel
Titanium	Tantalum Nitride

Equipment

INTERVIA 2011 REMOVER is considered compatible with the following plastic materials:

Buna-S Rubber	Butyl Rubber
EP	Polyethylene
Polypropylene	Silicone
Teflon ²	Kalrez ²

CAUTION: INTERVIA 2011 REMOVER attacks many plastic materials used in piping and equipment. The following materials are incompatible:

Buna-S Rubber	Hypalon ²
Neoprene	Polyacrylate
Polyurethane	PVC
PVDC	Viton-A ²

²Hypalon, Kalrez, Teflon and Viton are registered trademarks of E.I.DuPont de Nemours and Company, Inc.

Properties as Delivered

INTERVIA 2011 REMOVER is manufactured to the highest quality standards and is subjected to state-of-the-art testing for physical, chemical, and functional properties, to assure the user of maximum lot-to-lot reproducibility.

Certificates of Analysis will be supplied with each shipment upon request. Quality Assurance Material Specifications and Analytical Testing Procedures may be obtained upon request from your Dow Technical Representative.

INTERVIA 2011 REMOVER as delivered will conform to the following specifications:

Color	Water-white to pale-yellow
Turbidity	Non-turbid
Chloride Content	5.0 ppm maximum
Sodium Content	1.0 ppm maximum
Iron Content	1.0 ppm maximum

Handling Precautions

Before using this product, associated generic chemicals or the analytical reagents required for its control, consult the supplier's Material Safety Data Sheet (MSDS)/Safety Data Sheet (SDS) for details on material 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 Electronic Materials 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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Contact:
North America: 1-800-832-6200
Taiwan: 886-37-539100
China: (+86) 21-3851-1000
Hong Kong: (+852) 2879-7333
Korea: (+82) 2-3490-0700
Japan: (+81) 3-5460-2200
Europe: (+41)(0)44-728-2111
www.dowelectronicmaterials.com

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