

# Material Safety Data Sheet

Side 1 (5)

Product name: E-Beam Resist Series AR-P 639 - 679

Synonyms: Liquid Positive E-Beam Resist

Date: 01/07/2003

Producer: Allresist GmbH - Germany

Last revision: 25/10/2007

## 1. Product- and company name

### 1.1. Product name

E-Beam Resist Series AR-P 639 - 679

### 1.2. Company

**Allresist GmbH**

Am Biotop 14

15344 Strausberg

Germany

Phone: 0049 / 3341 / 3593 - 0

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E-mail: info@allresist.de

## 2. Ingredient

Content (%)	CAS-number	sign	R-set	Compound
(1) > 50	97-64-3	Xi	10-37-41	Ethyl lactate
(2) > 30	123-86-4		10-66-67	Butyl acetates

Additional remarks:

Polymethylmethacrylate dissolved in a mixture of organic solvents

## 3. Possible hazards



- Xi Irritant
- R 10 Flammable.
- R 37 Irritating to respiratory system.
- R 41 Risk of serious damage to eyes.
- R 66 Repeated exposure may cause skin dryness or cracking.
- R 67 Vapours may cause drowsiness and dizziness.

# Material Safety Data Sheet

Side 2 (5)

Product name: E-Beam Resist Series AR-P 639 - 679			
Synonyms:	Liquid Positive E-Beam Resist	Date:	01/07/2003
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## 4. Emergency and First Aid Procedures

Inhalation: Move victim to fresh air. Consult physician if irritation occurs.

Skin contact: Remove and isolate contaminated clothing and shoes. Flush skin with running water. Wash affected areas using mild soap.

Eye contact: Flush the eye and under lids with warm water for 15 minutes (remove contact lenses). Get emergency medical assistance.

Ingestion: Flush mouth and drink many water. Get medical attention immediately.

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## 5. Special fire fighting procedures

Evacuate area of all non-emergency personnel. Fire fighter must wear full emergency equipment with self-containing breathing apparatus. Fight fire from upwind and cool intact containers with water spray or stream at maximum range. Heat may build up and containers may rupture spreading fire and increasing risk of injury. Burning liquid may float on water.

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## 6. Accidental Release Procedures

Remove all sources of ignition. Ventilate area. Avoid skin and eye contact. Use respiratory protection. Absorb with inert materials such as dry clay or sand and place in closed container for disposal.

Waste disposal method: Incineration recommended. Dispose of as a solid industrial waste (non hazardous) in accordance with local, federal and state regulations.

# Material Safety Data Sheet

Side 3 (5)

Product name: E-Beam Resist Series AR-P 639 - 679			
Synonyms:	Liquid Positive E-Beam Resist	Date:	01/07/2003
Producer:	Allresist GmbH - Germany	Last revision:	25/10/2007

## 7. Handling and storage

### 7.1. Handling

Flammable liquid. Keep away from heat sparks and flame. Room ventilation.

Transport and store under dry conditions tightly closed and protected from light.

Avoid contact with skin, eyes and clothing. Safety eye wear to protect against splashes. Wear rubber gloves. Have safety shower and eye wash available.

### 7.2. Storage

Store at 10 - 22 °C (50 – 71.6 °F)

Store in original container

Storage class: 3 A

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## 8. Occupational exposure limits

Name and CAS-number of compounds see item 2. Ingredient

Number	Kind	ml/m <sup>3</sup> (ppm)	mg/m <sup>3</sup>
(2)	MAK	100	480

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## 9. Physical and chemical data

Form: liquid

Dye: colourless

Odour: aromatic

Melting point: - 25 °C (- 77 °F)

Boiling point: 126-155 °C (259 - 311 °F)

Flash point: 36 °C (97 °F)

Ignition point: 360 °C (680 °F)

Flammable limits: Lower 1.2 Vol.-%, Upper 11.4 Vol.-%

Vapour pressure: at 20 °C 13 mbar

Density: about 1.0 g/ml

Solubility in water: insoluble

Soluble in the most organic solvents

# Material Safety Data Sheet

Side 4 (5)

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Synonyms: Liquid Positive E-Beam Resist

Date: 01/07/2003

Producer: Allresist GmbH - Germany

Last revision: 25/10/2007

## 10. Stability and reactivity

Chemical stability: Stable

Hazardous polymerisation: will not occur

Conditions to avoid: Contact with oxidising material

Ignition sources

Reactions with materials: Attacks some plastics

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## 11. Toxicology

LD.50 (oral, mouse): 2500 mg/kg,

LD.50 (iv, mouse): 600 mg/kg,

LD.50 (sv, mouse): 2300 mg/kg

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## 12. Ecological Data

No data available at this time.

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## 13. Disposal Considerations

Burn in an EPA-licensed chemical incinerator equipped with an afterburner and scrubber at an approved waste disposal facility. Observe all federal, state and local environmental regulations.

# Material Safety Data Sheet

Side 5 (5)

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Synonyms:	Liquid Positive E-Beam Resist	Date:	01/07/2003
Producer:	Allresist GmbH - Germany	Last revision:	25/10/2007

## 14. Transportation information

**14.1. Land transport**

Class:	3 (Flammable liquid)
UN-number:	UN 1993
Packing Group:	III
Code:	F1

Proper Shipping Name: Flammable liquid, n.o.s. (Ethyl lactate solution)

**14.2. Air transport**

Class:	3 (Flammable liquid)
UN-number:	UN 1993
Packing Group:	III
Packing description:	309/310

Proper Shipping Name: Flammable liquid, n.o.s. (Ethyl lactate solution)

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## 15. Regulations

Marks and description according to EU-guidelines



Xi Irritant

R 10 Flammable.

R 37 Irritating to respiratory system.

R 41 Risk of serious damage eyes

R 66 Repeated exposure may cause skin dryness or cracking.

R 67 Vapours may cause drowsiness and dizziness.

### S-set

S 2 Keep out of the reach of children.

S 24/25 Avoid contact with skin and eyes.

S 26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice.

S 39 Wear eye protection.

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## 16. Additional Precautions and comments

To the best of our knowledge, the above information is believed to be accurate but does not claim to be all-inclusive and is intended to be used only as a guide. The supplier makes no warranty of any kind, expressed or implied, concerning the use of this product and shall not be held liable for any damage resulting from handling or from contact with the above product. User assumes all risks incident to its use.