Side 1 (5)

Product name: E-Beam Resist Series AR-P 631 - 671

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 631 - 671

1.2. Company

Allresist GmbH

Am Biotop 14

15344 Strausberg

Germany

Phone: 0049 / 3341 / 3593 - 0 Fax: 0049 / 3341 / 3593 - 29

E-mail: info@allresist.de

2. Ingredient

Content (%)	CAS-number	sign	R-set	Compound
(1) > 80	108-90-7	Xn, N	10-20-51/53	Chlorobenzene

Additional remarks:

Polymethylmethacrylate dissolved in a mixture of organic solvents

3. Possible hazards

• Xn

Hazardous to health

N

Harmful to the environment

• R 10 Flammable.

• R 20 Harmful by inhalation.

• R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environments.

Side 2 (5)

Product name: E-Beam Resist Series AR-P 631 - 671

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4. Emergency and First Aid Procedures

<u>Inhalation</u>: 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.

<u>Ingestion</u>: Flush mouth and drink many water. Get medical attention immediately.

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.

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.

Side 3 (5)

Product name: E-Beam Resist Series AR-P 631 - 671

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

8. Occupational exposure limits

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

Number	Kind	ml/m³ (ppm)	mg/m³
(1)	MAK	10	47

9. Physical and chemical data

Form: liquid

Dye: light yellow

Odour: aromatic

Melting point: - 45.1 °C (- 49.2 °F)

Boiling point: 132 °C (266 - 270 °F)

Flash point: $28 \degree \text{C}$ (82.4 °F) Ignition point: $590 \degree \text{C}$ (1094 °F)

Flammable limits: Lower 1.3 Vol.-%, Upper 11.0 Vol.-%

Vapour pressure: at 25 ℃ 11.7 mbar

at 50 °C 53.0 mbar

Density: about 1.11 g/ml

Solubility in water: 500 mg/l

Soluble in the most organic solvents

Side 4 (5)

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10. Stability and reactivity

Chemical stability: Stable

Hazardous polymerisation: will not occur

Conditions to avoid: Contact with alkaline material

Contact with oxidising material

Contact with alkali metals Contact with strong acids

Hazardous decomposition products:

Thermal decomposition may generate

Carbon dioxide, carbon monoxide, hydrochloric acid and

phosgene as well as volatile organic residues.

11. Toxicology

It has a narcotic effect, in high concentrations injured for kidney and liver.

LD.50 (oral, rat): 2290 mg/kg,

2830 mg/kg,

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

12. Ecological Data

LD.50 (oral, rabbit):

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in

the aquatic environments.

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.

Side 5 (5)

Product name: E-Beam Resist Series AR-P 631 - 671

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. (Chlorobenzene 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. (Chlorobenzene solution)

15. Regulations

Marks and description according to EU-guidelines



Hazardous to health



Harmful to the environment

Product contains: chlorobenzene

R-set

Xn

10 Flammable.

20 Harmful by inhalation.

51/53 Toxic to aquatic organisms, may cause long-term adverse

effects in the aquatic environments.

S-set

2 Keep out of the reach of children. 24/25 Avoid contact with skin and eyes.

Avoid release to the environment. Refer to special instructions.

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.