

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

Negative Tone Photoresist EpoClad

Print date : 7.11.2008

Product code : R260500

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1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

Negative Tone Photoresist EpoClad

Use of the substance/preparation

Organic Resin Solution

Company/undertaking identification

Company name : micro resist technology GmbH
 Street : Koepenicker Str. 325, Haus 211
 Place : D-12555 Berlin
 Telephone : +49 30 65762192
 e-mail : mrt@microresist.de
 Internet : www.microresist.de

Telefax : +49 30 65762193

2. Hazards identification

Classification

Indications of danger : Irritant, Dangerous for the environment

R-phrases :

May cause sensitization by skin contact.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition/information on ingredients

Chemical characterization (preparation)

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
202-509-5	96-48-0	Gamma Butyrolactone	15-25 %	Xn R22-36
203-572-1	108-32-7	propylene carbonate	<5%	Xi R36
403-500-0	109037-75-4	Mixture of triarylsulfonium hexafluoroantimonate salts	<5%	N R43-50-53

Full text of each relevant R phrase can be found in heading 16.

4. First aid measures

After inhalation

Provide fresh air. In case of breathing difficulties administer oxygen. If victim is at risk of losing consciousness, position and transport on their side. In case of irritation of the respiratory tract seek medical advice.

After contact with skin

After contact with skin, wash immediately with plenty of water. Change contaminated clothing. Subsequently wash again with: Water and soap. In case of skin irritation, seek medical treatment.

After contact with eyes

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Let water be swallowed in little sips (dilution effect). Immediately get medical attention.

Advice to doctor

Treat symptomatically.

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5. Fire-fighting measures

Suitable extinguishing media

Carbon dioxide (CO₂). Dry extinguishing powder. Foam.

Extinguishing media which must not be used for safety reasons

High power water jet.

Special exposure hazards arising from substance or preparation itself, combustion products, resulting gases

In case of fire and/or explosion do not breathe fumes.

Special protective equipment for fire-fighters

In case of fire: Wear self-contained breathing apparatus. Wear chemical resistant suit.

Additional information

Use water spray/stream to protect personnel and to cool endangered containers. Contaminated fire-fighting water must be collected separately.

6. Accidental release measures

Personal precautions

Remove all sources of ignition. The following must be prevented: inhalation. skin contact. Eye contact.
Provide adequate ventilation.

Environmental precautions

Do not empty into drains or the aquatic environment.

Methods for cleaning up/taking up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Collect in closed containers for disposal. Clean contaminated objects and areas thoroughly observing environmental regulations. Do not rinse down with water.

7. Handling and storage

Handling

Advice on safe handling

Use only in well-ventilated areas. Keep away from sources of ignition - No smoking.

Advice on protection against fire and explosion

Take precautionary measures against static discharges.

Storage

Requirements for storage rooms and vessels

Keep container tightly closed and in a well-ventilated place. Suitable material for floor covering:
Solvent-proof.

Further information on storage conditions

Protect against: heat. UV-radiation/sunlight.

Storageclass (VCI) :

3 A

8. Exposure controls/personal protection

Exposure limit values

Exposure controls

Protective and hygiene measures

When using do not eat, drink or smoke. Protect skin by using skin protective cream. After work, wash hands and face. Immediately remove any wetted clothing, shoes or stockings.

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Respiratory protection

If technical suction or ventilation measures are not possible or are insufficient, protective breathing apparatus must be worn. Respiratory protection required in case of: aerosol or mist generation. Filter respirator (full mask or mouth-piece) with filter: A

Hand protection

Tested protective gloves are to be worn: Single-use gloves.
German Industry Norms (DIN) / European Norms (EN): EN 374

Duration of wearing with permanent contact:

Suitable material: Butyl rubber.

Layer thickness: 0.7 mm

penetration time (maximum wearing period): > 480 min

Recommended protective gloves brand: KCL 898 Butoject, Manufacturer: KCL GmbH, D-36124

Eichenzell, Source of supply: www.kcl.de

Duration of wearing with occasional contact (splashes):

Suitable material: NBR (Nitrile rubber).

Layer thickness: 0.4 mm

penetration time (maximum wearing period): > 30 min

Recommended protective gloves brand: KCL 730 Camatril-Velours, Manufacturer: KCL GmbH,

D-36124 Eichenzell, Source of supply: www.kcl.de

In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

Eye protection

Suitable eye protection: Tightly sealed safety glasses.

Skin protection

For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).

9. Physical and chemical properties

General information

Physical state : liquid
Colour : colourless, clear
Odour : characteristic

Important health, safety and environmental information

Changes in the physical state

Boiling point :	204 °C (Gamma Butyrolactone)
Flash point :	100 °C (Gamma Butyrolactone)
Lower explosion limits :	2.7 vol. % (Gamma Butyrolactone)
Upper explosion limits :	15.6 vol. % (Gamma Butyrolactone)
Vapour pressure :	0.4 hPa (Gamma Butyrolactone)
(at 20 °C)	
Water solubility :	partially soluble
Viscosity / kinematic :	12740 mm²/s
(at 20 °C)	

Other information

Ignition temperature : 455 °C (Gamma Butyrolactone)

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10. Stability and reactivity

Conditions to avoid

UV-radiation/sunlight. heat. Only use material in places where open light, fire and other sources of ignition can be kept away.

Materials to avoid

acid, concentrated. Alkalis (alkalis), concentrated. Oxidizing agents, strong.

Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

11. Toxicological information

Acute toxicity

Acute toxicity, oral LD50: 1540 mg/kg species: Rat. (Gamma Butyrolactone)

12. Ecological information

Further information

product has not been tested. Do not allow uncontrolled leakage of product into the environment.

13. Disposal considerations

Advice on disposal

Appropriate disposal / Product: Remove according to the regulations.
Contaminated packaging: Cleaned containers may be recycled.

14. Transport information

Further Information

Not a hazardous material with respect to these transportation regulations.

15. Regulatory information

Labelling

Danger symbols :

Xi - Irritant; N - Dangerous for the environment



Xi - Irritant



N - Dangerous for the environment

Hazardous component(s) to be indicated on label

Mixture of triarylsulfonium hexafluoroantimonate salts

R phrases

- | | |
|-------|---|
| 43 | May cause sensitization by skin contact. |
| 51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

S phrases

- | | |
|----|---|
| 24 | Avoid contact with skin. |
| 37 | Wear suitable gloves. |
| 61 | Avoid release to the environment. Refer to special instructions / Safety data sheets. |

EU regulatory information

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1999/13/EC (VOC) :

Data concerning the Directive 1999/13/EC on the limitation of emissions of volatile organic compounds (VOC-RL): This chemical is a VOC according to 99/13/EC. Volatile organic compounds (VOC) in percentage by weight: 15-25

National regulatory information

Employment restrictions :

Observe employment restrictions for young people.

Water contaminating class :

1 - slightly water contaminating

16. Other information

Full text of R-phrases referred to under sections 2 and 3

- | | |
|-------|---|
| 22 | Harmful if swallowed. |
| 36 | Irritating to eyes. |
| 43 | May cause sensitization by skin contact. |
| 50 | Very toxic to aquatic organisms. |
| 51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| 53 | May cause long-term adverse effects in the aquatic environment. |

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)