

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

mr-T 1090 Thinner for Photoresists

Print date : 7.11.2008

Product code : R824100

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

Product group : Verdünner

Identification of the substance or preparation

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Use of the substance/preparation

Chemical Speciality

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
 R-phrases :
 Flammable.
 Irritating to eyes and skin.

3. Composition/information on ingredients

Chemical characterization (preparation)

Hazardous components

| EC-No. | CAS-No. | Chemical name | Quantity | Classification |
|-----------|----------|----------------|----------|----------------|
| 204-435-9 | 120-92-3 | cyclopentanone | 40-60 % | Xi R10-36/38 |
| 202-876-1 | 100-66-3 | Anisole | 40-60 % | R10 |

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 and soap. Change contaminated clothing. 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

Caution if victim vomits: Risk of aspiration! 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 mediaCarbon 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. In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

Special protective equipment for fire-fighters

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

Additional information

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

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

Due to danger of explosion, prevent leakage of vapors into cellars, flues and ditches.

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.

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. storage temperature: of °C: 18 up to °C: 25 Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. 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**

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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.

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.
 Type of chemical protective gloves to choose depends on the concentration and quantity of dangerous substances as well as on work place specifications.
 In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.
 Breakthrough times and swelling characteristics of the material must be taken into consideration.
 Before using check leak tightness / impermeability.

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 : clear
 Odour : hydrocarbons, aromatic.

Important health, safety and environmental information

| | Test method |
|--------------------------------------|----------------------------|
| pH-Value : | not applicable |
| Changes in the physical state | |
| Boiling point : | 131 °C (cyclopentanone) |
| Flash point : | 27 °C (cyclopentanone) |
| Vapour pressure : | 11.5 hPa (cyclopentanone) |
| (at 20 °C) | |
| Density (at 20 °C) : | 0.95-1.0 g/cm ³ |
| Water solubility : | unlöslich |
| Viscosity / dynamic : | <7 mPa·s |
| (at 25 °C) | |

Other information

Ignition temperature : 445 °C (cyclopentanone)

10. Stability and reactivity

Conditions to avoid

UV-radiation/sunlight. heat. Take precautionary measures against static discharges. Remove all sources of ignition.

Materials to avoid

Oxidizing agents. Alkalis (alkalis). acid. Air.

Hazardous decomposition products

peroxides. Carbon monoxide. Carbon dioxide.

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Additional information

Formation of potentially explosive mixtures with: Air.

11. Toxicological information

Acute toxicity

Acute toxicity, oral LD50: 3700 mg/kg species: Rat. (Anisole)

Acute toxicity, oral LD50: >2000 mg/kg species: Rat. (cyclopentanone)

The statement is derived from the properties of the components.

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

Land transport (ADR/RID)

| | |
|-------------------------|------|
| UN number : | 1993 |
| ADR/RID class : | 3 |
| Warning plate | |
| Hazard-no. : | 30 |
| Hazard label : | 3 |
| ADR/RID packing group : | III |

Description of the goods

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (Anisole, Cyclopentanone)

Inland waterways transport

Remarks (inland waterways transport)

Not classified for this carrier.

Marine transport

| | |
|----------------------|----------|
| UN number : | 1993 |
| IMDG code : | 3 |
| Hazard label : | 3 |
| IMDG packing group : | III |
| EmS : | F-E, S-E |

Description of the goods

FLAMMABLE LIQUID, N.O.S. (Anisole, Cyclopentanone)

Air transport

| | | |
|---|------|------|
| UN/ID number : | 1993 | |
| ICAO/IATA-DGR : | 3 | |
| Hazard label : | 3 | |
| ICAO packing group : | III | |
| IATA-packing instructions - Passenger : | | 309 |
| IATA-max. quantity - Passenger : | | 60 L |
| IATA-packing instructions - Cargo : | | 310 |

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IATA-max. quantity - Cargo : 220 L

Description of the goods

FLAMMABLE LIQUID, N.O.S. (Anisole, Cyclopentanone)

15. Regulatory information

Labelling

Danger symbols : Xi - Irritant



Xi - Irritant

R phrases

 10 Flammable.
 36/38 Irritating to eyes and skin.

S phrases

 16 Keep away from sources of ignition - No smoking.
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 24/25 Avoid contact with skin and eyes.

EU regulatory information

1999/13/EC (VOC) : This chemical is a VOC according to 99/13/EC. Volatile organic compounds (VOC) in percentage by weight: 100% (950 g/l)

National regulatory information

 Employment restrictions : Observe employment restrictions for young people.
 Water contaminating class : 2 - water contaminating

16. Other information

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

 10 Flammable.
 36/38 Irritating to eyes and skin.

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.)