

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

mr-UVCur21-100nm

Print date : 18.7.2008

Product code : R370100

Page 1 of 6

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

Identification of the substance or preparation

mr-UVCur21-100nm

Use of the substance/preparation

Polymer for UV-based Nano Imprint Lithography

Company/undertaking identification

Company name :	micro resist technology GmbH	
Street :	Koepenicker Str. 325, Haus 211	
Place :	D-12555 Berlin	
Telephone :	+49 30 65762192	Telefax : +49 30 65762193
e-mail :	mrt@microresist.de	
Internet :	www.microresist.de	

2. Hazards identification

Classification

Indications of danger : Harmful, Irritant
 R-phrases :
 Flammable.
 Harmful by inhalation and in contact with skin.
 Irritating to eyes, respiratory system and skin.

3. Composition/information on ingredients

Chemical characterization (preparation)

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
203-685-6	109-59-1	2-isopropoxyethanol, ethylene glycol monoisopropyl ether	40 - 55 %	Xn, Xi R20/21-36
212-112-9	763-69-9	Ethyl 3-ethoxypropionate	40 - 55 %	Xi R36/37/38
255-901-3	42594-17-2	(octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate	1 - 5 %	Xi R36/38
219-099-9	2358-84-1	Oxydi-2,1-ethanediyl bismethacrylate	1 - 5 %	Xi R36/37/38

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

Rinse mouth immediately and drink large quantities of water. Consult physician.

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

mr-UVCur21-100nm

Print date : 18.7.2008

Product code : R370100

Page 2 of 6

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

Product is: Combustible. Vapours are heavier than air and will spread at floor level. Formation of potentially explosive mixtures with: Air. In case of fire and/or explosion do not breathe fumes.

Can be released in case of fire: Nitrogen oxides (NO_x). Carbon monoxide. Carbon dioxide (CO₂).**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

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.

If suction of the immediate vicinity is impossible or insufficient, adequate airing of the working place must be ensured.

Avoid contact with skin and eyes.

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. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Suitable material for floor covering: Solvent-proof.

storage temperature: of °C: 15 up to °C: 25

Further information on storage conditions

Protect against: heat. UV-radiation/sunlight.

Protect against: Emission of air/oxygen.

Materials to avoid: Air. Formation of: peroxides.

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

mr-UVCur21-100nm

Print date : 18.7.2008

Product code : R370100

Page 3 of 6

8. Exposure controls/personal protection

Exposure limit values

Exposure controls

Protective and hygiene measures

Change contaminated clothing. Protect skin by using skin protective cream. Wash hands before breaks and at the end of work. When using do not eat, drink or smoke.

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.
 Don't wear contact lenses.

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 : characteristic

Important health, safety and environmental information

pH-Value : not applicable

Changes in the physical state

	Test method
Melting point :	not applicable
Boiling point :	not applicable
Flash point :	45 °C
Density (at 20 °C) :	~0.94 g/cm ³
Water solubility :	partially soluble
Viscosity / dynamic : (at 25 °C)	1.5-2.0 mPa·s

Other information

Ignition temperature : 240 °C

10. Stability and reactivity

Conditions to avoid

Light. heat.

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

mr-UVCur21-100nm

Print date : 18.7.2008

Product code : R370100

Page 4 of 6

Materials to avoid

Reducing agents, Oxidizing agents., Alkalis (alkalis), concentrated.

Hazardous decomposition products

Can be released in case of fire: nitrogen oxides (NOx). Carbon monoxide. Carbon dioxide (CO2). peroxides.

Additional information

Unsuitable materials: light metals. In use, may form flammable/explosive vapour-air mixture.

11. Toxicological information

Acute toxicity

Acute toxicity, inhalant LC50: 3.1 mg/l /4h species: Rat. (2-isopropoxyethanol, ethylene glycol monoisopropyl ether)
Acute toxicity, dermal LD50: 1440 mg/kg species: Rabbit. (2-isopropoxyethanol, ethylene glycol monoisopropyl ether)
Acute toxicity, oral LD50: 5660 mg/kg species: Rat. (2-isopropoxyethanol, ethylene glycol monoisopropyl ether)

The statement is derived from the properties of the components.

Further information

Preparation not tested.

12. Ecological information

Ecotoxicity

No data available

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
Classification code :	F1
Warning plate	
Hazard-no. :	30
Hazard label :	3
ADR/RID packing group :	III
Limited quantity :	LQ7

Description of the goods

FLAMMABLE LIQUID, N.O.S. (Ethylenglycolmonoisopropylether, Ethyl 3-ethoxypropionate)

Remarks (land transport)

Special Provisions: 274 330 601 640E
Transport Category: 3
Tunnel Restriction Code: E

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

mr-UVCur21-100nm

Print date : 18.7.2008

Product code : R370100

Page 5 of 6

Inland waterways transport

Remarks (inland waterways transport)

Not classified for this carrier.

Marine transport

UN number :	1993
IMDG code :	3
Marine pollutant :	•
Hazard label :	3
IMDG packing group :	III
EmS :	F-E, S-E
Limited quantity :	5 L

Description of the goods

FLAMMABLE LIQUID, N.O.S. (Ethylenglycolmonoisopropylether, Ethyl 3-ethoxypropionate)

Remarks (marine transport)

Special Provisions: 223, 330, 274, 944, 955

Air transport

UN/ID number :	1993
ICAO/IATA-DGR :	3
Hazard label :	3
ICAO packing group :	III
Limited quantity Passenger :	10 L
IATA-packing instructions - Passenger :	309
IATA-max. quantity - Passenger :	60 L
IATA-packing instructions - Cargo :	310
IATA-max. quantity - Cargo :	220 L

Description of the goods

FLAMMABLE LIQUID, N.O.S. (Ethylenglycolmonoisopropylether, Ethyl 3-ethoxypropionate)

Remarks (air transport)

Passenger-LQ: Y309

15. Regulatory information

Labelling

Danger symbols : Xn - Harmful



Xn - Harmful

Hazardous component(s) to be indicated on label

2-isopropoxyethanol, ethylene glycol monoisopropyl ether

R phrases

10	Flammable.
20/21	Harmful by inhalation and in contact with skin.
36/37/38	Irritating to eyes, respiratory system and skin.

S phrases

46	If swallowed, seek medical advice immediately and show this container or label.
51	Use only in well-ventilated areas.
24/25	Avoid contact with skin and eyes.
36/37	Wear suitable protective clothing and gloves.

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

mr-UVCur21-100nm

Print date : 18.7.2008

Product code : R370100

Page 6 of 6

National regulatory information

Employment restrictions : Observe employment restrictions for young people.; Observe employment restrictions for child bearing mothers and nursing.

Water contaminating class : 1 - slightly water contaminating

16. Other information

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

10 Flammable.
20/21 Harmful by inhalation and in contact with skin.
36 Irritating to eyes.
36/37/38 Irritating to eyes, respiratory system and skin.
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.)