

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ma-N 2400 Negative Tone Photoresist Series

Print date: 30.04.2013

Product code: R230XXXACP

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

ma-N 2400 Negative Tone Photoresist Series

Product group: Negativresist

Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Manufacture of computer, electronic and optical products, electrical equipment.

Details of the supplier of the safety data sheet

Company name: micro resist technology GmbH

Street: Koepenicker Str. 325

Place: D-12555 Berlin

Telephone: +49 30 641670-100

Telefax: +49 30 641670-200

e-mail: safety@microresist.de

Internet: www.microresist.de

Emergency telephone: +49 30 641670-100

Further Information

This number is serviced during office hours.

SECTION 2: Hazards identification

Classification of the substance or mixture

Indications of danger : Irritant

R-phrases:

Flammable.

Irritating to eyes and skin.

GHS classification

Hazard categories:

Flammable liquid: Flam. Liq. 3

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements:

Flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

Label elements

Hazardous components which must be listed on the label

cyclopentanone

Anisole

Signal word:

Warning

Pictograms:

GHS02-GHS07



Hazard statements

H226

Flammable liquid and vapour.

H315

Causes skin irritation.

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H319 Causes serious eye irritation.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Other hazards

Flammable liquid and vapour.
 The components in this formulation do not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients

Mixtures

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
204-435-9	cyclopentanone	30-60 %
120-92-3	Xi R10-36/38	
606-025-00-9	Flam. Liq. 3, Eye Irrit. 2, Skin Irrit. 2; H226 H319 H315	
202-876-1	Anisole	30-60 %
100-66-3	R10	
	Flam. Liq. 3, Skin Irrit. 2, Eye Irrit. 2; H226 H315 H319	

Full text of R- and H-phrases: see section 16.

SECTION 4: First aid measures

Description of first aid measures

General information

In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).

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

Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink large quantities of water.
 Caution if victim vomits: Risk of aspiration!
 Medical treatment necessary.

Most important symptoms and effects, both acute and delayed

Causes skin irritation.
 Causes serious eye irritation.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

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

Extinguishing media which must not be used for safety reasons

Water.

Special hazards arising from the substance or mixture

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

Advice for firefighters

Wear a self-contained breathing apparatus and chemical resistant suit. Full protective suit.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eye and clothing. Wear personal protection equipment.

Environmental precautions

Do not empty into drains or the aquatic environment.

Methods and material for containment and cleaning 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.

Reference to other sections

Treat the assimilated material according to the section on waste disposal.
See protective measures under point 7 and 8.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas. Only use material in places where open light, fire and other sources of ignition can be kept away. Do not breathe vapour or spray.

Advice on protection against fire and explosion

In case of fire, use sand, earth, extinguishing powder or foam. Never use water.

Conditions for safe storage, including any incompatibilities

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.

Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

Control parameters

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Additional advice on limit values

No data available

Exposure controls



Occupational exposure controls

In case of open handling equipment with built-in suction must be used. Do not breathe gas/fumes/vapour/spray. Wear personal protection equipment. Provide adequate ventilation.

Protective and hygiene measures

Take off immediately all contaminated clothing. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

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

Butyl rubber gloves or viton gloves are recommended.
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).

Environmental exposure controls

Do not empty into drains.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state: liquid
Colour: yellow brown
Odour: hydrocarbons, aromatic.

Test method

pH-Value: No data available

Changes in the physical state

Boiling point: 131 °C (cyclopentanone)
Flash point: 35 °C DIN EN ISO 13736
Lower explosion limits: No data available
Upper explosion limits: No data available
Ignition temperature: 445 °C (cyclopentanone)

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Vapour pressure:	No data available
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Density (at 25 °C):	0,98-1,08 g/cm ³
Water solubility:	not miscible
Partition coefficient:	No data available
Viscosity / dynamic: (at 25 °C)	1-15 mPa·s
Viscosity / kinematic:	No data available
Flow time:	No data available
Vapour density:	No data available
Evaporation rate:	No data available

Other information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

No data available

Possibility of hazardous reactions

No data available

Conditions to avoid

UV-radiation/sunlight.
Keep away from heat. Ignition hazard.

Incompatible materials

Oxidizing agents. Reducing agents.

Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

Further information

Formation of potentially explosive mixtures with: Air.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

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

CAS No	Chemical name				Source
	Exposure routes	Method	Dose	Species	
100-66-3	Anisole				
	oral	LD50	3700 mg/kg	Rat.	

Additional information on tests

The classification was undertaken in accordance with the calculation method governed by the Preparations Directive (1999/45/EC).

SECTION 12: Ecological information

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Toxicity

No data available

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	h	Species	Source
100-66-3	Anisole					
	Acute fish toxicity	LC50	> 1 mg/l	96	Danio rerio	

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
100-66-3	Anisole	2,11

Mobility in soil

No data available

Results of PBT and vPvB assessment

No data available

Other adverse effects

No data available

Further information

Do not empty into drains or the aquatic environment. The classification was undertaken in accordance with the calculation method governed by the Preparations Directive (1999/45/EC).

SECTION 13: Disposal considerations

Waste treatment methods

Advice on disposal

Do not empty into drains or the aquatic environment. Waste disposal according to official state regulations.

Contaminated packaging

Handle contaminated packaging in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

UN number: UN1866
UN proper shipping name: Resin solution
Transport hazard class(es): 3
Packing group: III
 Hazard label: 3



Classification code: F1
 Special Provisions: 640E
 Limited quantity: 5 L
 Transport category: 3

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Hazard No: 30
Tunnel restriction code: D/E

Other applicable information (land transport)

Excepted Quantity: E1

Marine transport

UN number: UN1866
UN proper shipping name: Resin solution
Transport hazard class(es): 3
Packing group: III
Hazard label: 3



Special Provisions: 223, 955
Limited quantity: 5 L
EmS: F-E, S-E

Other applicable information (marine transport)

Excepted Quantity: E1

Air transport

UN/ID number: UN1866
UN proper shipping name: Resin solution
Transport hazard class(es): 3
Packing group: III
Hazard label: 3



Special Provisions: A3
Limited quantity Passenger: 10 L
IATA-packing instructions - Passenger: 355
IATA-max. quantity - Passenger: 60 L
IATA-packing instructions - Cargo: 366
IATA-max. quantity - Cargo: 220 L

Other applicable information (air transport)

Excepted Quantity: E1
Passenger-LQ: Y344

Environmental hazards

Dangerous for the environment: no

Special precautions for user

No data available

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

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1999/13/EC (VOC): 73,5 % (720,3 g/l)

National regulatory information

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

Water contaminating class (D): 2 - water contaminating

Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Changes**

chapter: 1; 2; 4; 12; 14; 15

Full text of R-phrases referred to under sections 2 and 310 Flammable.
36/38 Irritating to eyes and skin.**Full text of H-Statements referred to under sections 2 and 3**H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.**Further Information**

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.)