

Safety Data Sheet

according to 29 CFR 1910.1200(g)

ma-N 2400 Negative Tone Photoresist Series

Print date: 06.11.2015

Product code: R230_USA

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1. Identification

Product identifier

ma-N 2400 Negative Tone Photoresist Series

Recommended use of the chemical and restrictions on use

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
 e-mail: safety@microresist.de
 Internet: www.microresist.de

Telefax: +49 30 641670-200

Emergency phone number: +49 30 641670-100

Further Information

This number is serviced during office hours.

2. Hazard(s) identification

Classification of the chemical

Hazard categories:
 Flammable liquid: Flam. Liq. 3
 Skin corrosion/irritation: Skin Irrit. 2
 Serious eye damage/eye irritation: Eye Irrit. 2A
 Hazard Statements:
 Flammable liquid and vapor
 Causes skin irritation
 Causes serious eye irritation

Label elements

Signal word: Warning
 Pictograms: flame; exclamation mark



Hazard statements

Flammable liquid and vapor
 Causes skin irritation
 Causes serious eye irritation

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
 Continue rinsing.
 Store in a well-ventilated place. Keep cool.
 Dispose of waste according to applicable legislation.

Hazards not otherwise classified

No information available.

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3. Composition/information on ingredients

Mixtures

Hazardous components

CAS No	Components	Quantity
120-92-3	cyclopentanone	30-60 %
100-66-3	Anisole	30-60 %

4. First-aid measures

Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or 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 respiratory tract irritation, consult a physician.

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 plenty 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.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

Water.

Specific hazards arising from the chemical

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

Special protective equipment and precautions for fire-fighters

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

Additional information

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

6. Accidental release measures

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Personal precautions, protective equipment and emergency procedures

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

Environmental precautions

Do not allow to enter into surface water or drains.

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 recovered material as prescribed in the section on waste disposal.
See protective measures under point 7 and 8.

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas. Only use the material in places where open light, fire and other flammable sources can be kept away. Do not breathe vapour/aerosol.

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 discharge. Suitable floor material: Solvent-proof.

Further information on storage conditions

Protect against: heat. UV-radiation/sunlight.

8. Exposure controls/personal protection

Control parameters

Additional advice on limit values

No data available

Exposure controls



Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Wear personal protection equipment. Provide adequate ventilation.

Protective and hygiene measures

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

Eye/face protection

Suitable eye protection: Tightly sealed safety glasses.

Hand protection

Butyl rubber gloves or viton gloves are recommended.
Tested protective gloves are to be worn: Single-use gloves.

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The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Breakthrough times and swelling properties of the material must be taken into consideration. Before using check leak tightness / impermeability.

Skin protection

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

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Respiratory protection necessary at: aerosol or mist generation. Filtering device (full mask or mouthpiece) with filter: A

Environmental exposure controls

Do not empty into drains.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	liquid
Color:	yellow brown
Odor:	hydrocarbons, aromatic.

Test method

pH-Value:	No data available
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Changes in the physical state

Melting point/freezing point:	No data available
Initial boiling point and boiling range:	131 °C (cyclopentanone)
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
:	No data available
Flash point:	35 °C DIN EN ISO 13736
Sustaining combustion:	No data available

Flammability

Solid:	No data available
Gas:	No data available

Explosive properties

No data available

Lower explosion limits:	No data available
Upper explosion limits:	No data available
Ignition temperature:	445 °C (cyclopentanone)

Auto-ignition temperature

Solid:	No data available
Gas:	No data available

Decomposition temperature:	No data available
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Oxidizing properties

No data available

Vapor pressure:	No data available
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Vapor pressure:	No data available
Density (at 25 °C):	0,98-1,08 g/cm ³
Bulk density:	No data available
Water solubility:	not miscible
Solubility in other solvents	
No data available	
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
Solvent separation test:	No data available
Solvent content:	No data available

Other information

No data available

10. Stability and reactivity

Reactivity

No data available

Chemical stability

Stability: Stable

No data available

Possibility of hazardous reactions

Hazardous reactions: May occur

No data available

Conditions to avoid

UV-radiation/sunlight.

Keep away from heat. Ignition hazard.

Incompatible materials

Oxidizing agents. Reducing agent.

Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

Further information

Formation of explosive mixtures with: Air.

11. Toxicological information

Information on toxicological effects

Route(s) of Entry

inhalation, ingestion, skin contact, eye contact

Acute toxicity

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

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

Carcinogenicity (NTP): Ingredient (name): none

Carcinogenicity (IARC): Ingredient (name): none

Carcinogenicity (OSHA): Ingredient (name): none

Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

12. Ecological information

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

13. Disposal considerations

Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Contaminated packaging

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

14. Transport information

US DOT 49 CFR 172.101

UN/ID number: UN 1866

Proper shipping name: Resin solution

Transport hazard class(es): 3

Packing group: III

Hazard label: 3

Marine transport (IMDG)

UN number: UN 1866

UN proper shipping name: Resin solution

Transport hazard class(es): 3

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Packing group: III
 Hazard label: 3

 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-E, S-E

Air transport (ICAO)

UN number: UN 1866
UN proper shipping name: Resin solution
Transport hazard class(es): 3
Packing group: III
 Hazard label: 3



Limited quantity Passenger: 10 L
 Passenger LQ: Y344
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 355
 IATA-max. quantity - Passenger: 60 L
 IATA-packing instructions - Cargo: 366
 IATA-max. quantity - Cargo: 220 L

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

Special precautions for user

No data available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

15. Regulatory information

U.S. Regulations

National Inventory TSCA

TSCA Inventory Status: Listed

National regulatory information

SARA Section 311/312 Hazards:

Cyclopentanon (120-92-3): Fire hazard, Immediate (acute) health hazard

Anisol (100-66-3): Fire hazard, Immediate (acute) health hazard

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Hazardous Materials Information Label (HMIS)

Health: 2

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Flammability: 3
 Physical Hazard: 1
 Personal Protection: B

NFPA Hazard Ratings

Health: 2
 Flammability: 3
 Reactivity: 1
 Unique Hazard: /



Revision date: 06.11.2015
 Revision No: 1,00

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
 (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service
 LC50: Lethal concentration, 50%
 LD50: Lethal dose, 50%

Other data

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.)