

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### ma-P 1275G Photoresist

Revision date: 27.09.2016

Product code: A\_USA\_ma-P\_1275G

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## 1. Identification

### Product identifier

ma-P 1275G Photoresist

### Recommended use of the chemical and restrictions on use

#### Use of the substance/mixture

Photoresist

Product Categories [PC]: Photosensitive agent and other photochemicals

Sector of uses [SU]: Manufacture of computer, electronic and optical products, electrical equipment.

#### Uses advised against

Do not use for private purposes (household).

### 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 phone number:** Chemtrec (International - 24 h): +1 703 527 3887

## 2. Hazard(s) identification

### Classification of the chemical

#### 29 CFR Part 1910.1200

Hazard categories:

Flammable liquids: Flam. Liq. 3

Reproductive toxicity: Repr. 1B

Hazard Statements:

Flammable liquid and vapor

May damage fertility or the unborn child

### Label elements

#### 29 CFR Part 1910.1200

**Signal word:** Danger

**Pictograms:**



### **Hazard statements**

Flammable liquid and vapor

May damage fertility or the unborn child

### **Precautionary statements**

Obtain special instructions before use.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Wear protective gloves/protective clothing/eye protection/face protection.

If exposed or concerned: Get medical advice/attention.

In case of fire: Use Extinguishing powder, Foam, Carbon dioxide to extinguish.

Store in a well-ventilated place. Keep cool.

### Hazards not otherwise classified

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

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### 3. Composition/information on ingredients

#### Mixtures

#### Hazardous components

CAS No	Components	Quantity
108-65-6	2-methoxy-1-methylethyl acetate	50 - 90 %
31001-73-7	4-Benzoyl-1,3-phenylene bis(6-diazo-5,6-dihydro-5-oxonaphthalene-1-sulphonate)	< 5 %
70657-70-4	2-methoxypropyl acetate	< 0.2 %

### 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.

##### After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water.

#### Most important symptoms and effects, both acute and delayed

No information available.

#### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### 5. Fire-fighting measures

#### Extinguishing media

##### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>), Foam, Extinguishing powder.

##### Unsuitable extinguishing media

Water.

#### Specific hazards arising from the chemical

Flammable. Vapours can form explosive mixtures with air.

#### Special protective equipment and precautions for fire-fighters

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

#### Additional information

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Provide adequate ventilation.

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#### 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). Treat the recovered material as prescribed in the section on waste disposal.

#### Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## 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**

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

Vapours can form explosive mixtures with air.

#### Conditions for safe storage, including any incompatibilities

##### **Requirements for storage rooms and vessels**

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

##### **Advice on storage compatibility**

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

##### **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**

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

##### **Eye/face protection**

Suitable eye protection: Tightly sealed safety glasses.

In accordance with DIN EN 166

##### **Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the

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

Duration of wearing with permanent contact:

Suitable material: Butyl rubber.

Thickness of glove material: 0,7 mm

penetration time (maximum wearing period): > 480 min

Recommended protective gloves brand:

1) KCL 898 Butoject, Manufacturer: KCL GmbH, D-36124 Eichenzell, Source of supply: www.kcl.de

2) Butoflex 650 (www.mapa-pro.com)

Wearing time with occasional contact (splashes):

Suitable material: NBR (Nitrile rubber).

Thickness of glove material: 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

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.

#### Skin protection

Wear suitable protective clothing.

#### Respiratory protection

In case of inadequate ventilation wear 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: red brown

#### Test method

pH-Value: not determined

#### Changes in the physical state

Melting point/freezing point: not determined

Initial boiling point and boiling range: 151 °C

Flash point: 48 °C DIN EN ISO 13736

#### Flammability

Solid: not applicable

Gas: not applicable

#### Explosive properties

not determined

Lower explosion limits: 1,2 vol. %

Upper explosion limits: 10,6 vol. %

#### Auto-ignition temperature

Solid: not applicable

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Gas:	not applicable
Decomposition temperature:	>110 °C
<b>Oxidizing properties</b>	
No data available	
Vapor pressure:	not determined
Vapor pressure: (at 50 °C)	21 hPa
Density (at 25 °C):	1 g/cm <sup>3</sup>
Water solubility:	No data available
<b>Solubility in other solvents</b>	
not determined	
Partition coefficient:	not determined
Viscosity / dynamic: (at 25 °C)	800-1000 mPa·s
Vapor density:	not determined
Evaporation rate:	not determined
<b><u>Other information</u></b>	
Solid content:	not determined

**10. Stability and reactivity****Reactivity**

Flammable.

**Chemical stability**

Stability: Stable

The product is stable under storage at normal ambient temperatures.

**Possibility of hazardous reactions**

Hazardous reactions: Will not occur

No known hazardous reactions.

**Conditions to avoid**

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

**Incompatible materials**

Oxidizing agents. Reducing agent.

Peroxides.

**Hazardous decomposition products**

No known hazardous decomposition products.

**Further information**

Keep in a cool place.

Observe technical data sheet.: Processing Guidelines

**11. Toxicological information****Information on toxicological effects****Route(s) of Entry**

inhalation, ingestion, skin contact, eye contact

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#### Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Components					
	Exposure route	Dose		Species	Source	Method
108-65-6	2-methoxy-1-methylethyl acetate					
	oral	LD50 mg/kg	8532	Rat	RTECS	
	dermal	LD50 mg/kg	7500	Rabbit		
31001-73-7	4-Benzoyl-1,3-phenylene bis(6-diazo-5,6-dihydro-5-oxonaphthalene-1-sulphonate)					
	oral	LD50 mg/kg	>2000	Rat		
	dermal	LD50 mg/kg	>2000	Rabbit		

#### Irritation and corrosivity

Based on available data, the classification criteria are not met.

#### Sensitizing effects

Based on available data, the classification criteria are not met.

#### Carcinogenic/mutagenic/toxic effects for reproduction

May damage fertility or the unborn child

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Method: Calculation method.

#### Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met.

#### Specific target organ toxicity (STOT) - repeated exposure

Based on available data, the classification criteria are not met.

Carcinogenicity (OSHA): Ingredient (name): none

Carcinogenicity (IARC): Ingredient (name): none

Carcinogenicity (NTP): Ingredient (name): none

#### Aspiration hazard

Based on available data, the classification criteria are not met.

## 12. Ecological information

#### Ecotoxicity

The product is not: Ecotoxic.

#### Persistence and degradability

The product has not been tested.

#### Bioaccumulative potential

The product has not been tested.

#### Mobility in soil

The product has not been tested.

#### Other adverse effects

No information available.

#### Further information

Avoid release to the environment.

## 13. Disposal considerations

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#### Waste treatment methods

##### **Advice on disposal**

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

Consult the local waste disposal expert about waste disposal.

##### **Contaminated packaging**

Wash with plenty of water. Completely emptied packages can be recycled. Dispose of waste according to applicable legislation.

Consult the local waste disposal expert about waste disposal.

### 14. Transport information

#### US DOT 49 CFR 172.101

<b><u>UN/ID number:</u></b>	UN 1866
<b><u>Proper shipping name:</u></b>	resin solution
<b><u>Transport hazard class(es):</u></b>	3
<b><u>Packing group:</u></b>	III
Hazard label:	3

#### Marine transport (IMDG)

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



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

#### Air transport (ICAO-TI/IATA-DGR)

<b><u>UN number:</u></b>	UN 1866
<b><u>UN proper shipping name:</u></b>	Resin solution
<b><u>Transport hazard class(es):</u></b>	3
<b><u>Packing group:</u></b>	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

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#### Special precautions for user

Warning: Combustible liquid.

#### 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

All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

#### National regulatory information

SARA Section 311/312 Hazards:

2-methoxy-1-methylethyl acetate (108-65-6): Fire hazard

4-Benzoyl-1,3-phenylene bis(6-diazo-5,6-dihydro-5-oxonaphthalene-1-sulphonate) (31001-73-7): Reactive, Immediate (acute) health hazard

2-methoxypropyl acetate (70657-70-4): 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
Flammability:	2
Physical Hazard:	0
Personal Protection:	B

### NFPA Hazard Ratings

Health:	2
Flammability:	2
Reactivity:	0
Unique Hazard:	/



### Changes

Revision date:	27.09.2016
Revision No:	1,00
chapter:	1; 2; 3; 4; 5; 6; 7; 8; 9; 10; 11; 12; 13; 14; 15

### 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



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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.

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