

**Safety Data Sheet**

according to Regulation (EU) No. 1907/2006

**MMA(8.5)MAA Copolymer Series Resists**

Print date : 1.7.2009

Product code : MM310XXX

Page 1 of 6

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

MMA(8.5)MAA Copolymer Series Resists

**Use of the substance/preparation**

Organic Polymer Solution

**Company/undertaking identification**

Company name : MicroChem Corp.  
 Street : 90 Oak Street  
 Place : USA-MA 02464-1418 Newton  
 Post-office box : PO Box 426  
 USA-MA 02464-0002 Newton  
 Telephone : +1 617 965 5511   Telefax : +1 617 965 5818  
 e-mail : productsafety@microchem.com  
 Internet : www.microchem.com  
 Emergency telephone : Chemtrec (International): +1 703 527 3887

**2. Hazards identification****Classification**

Indications of danger : Irritant  
 R-phrases :  
 Flammable.  
 Irritating to respiratory system.  
 Risk of serious damage to eyes.

**3. Composition/information on ingredients****Chemical characterization** ( Mixture )**Hazardous components**

EC-No.	CAS-No.	Chemical name	Quantity	Classification
202-598-0	97-64-3	ethyl DL-lactate, ethyl lactate	85 - 98 %	Xi R10-37-41

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**

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. In case of troubles or persistent symptoms, consult an ophthalmologist.

**After ingestion**

Rinse mouth thoroughly with water. Let water be swallowed in little sips (dilution effect). Immediately get medical attention.

# Safety Data Sheet

according to Regulation (EU) No. 1907/2006

## MMA(8.5)MAA Copolymer Series Resists

Print date : 1.7.2009

Product code : MM310XXX

Page 2 of 6

**Advice to doctor**

Treat symptomatically.

### 5. Fire-fighting measures

**Suitable extinguishing media**Carbon dioxide (CO<sub>2</sub>). Dry extinguishing powder. Foam.**Special exposure hazards arising from substance or preparation itself, combustion products, resulting gases**

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

**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**

Do not empty into drains or the aquatic environment.

**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. The following must be prevented: inhalation. skin contact. Eye contact.

**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.

**Further information on storage conditions**

Protect against: heat. UV-radiation/sunlight.

Storageclass (VCI) :

3A

### 8. Exposure controls/personal protection

**Exposure limit values****Exposure controls****Protective and hygiene measures**

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.

# Safety Data Sheet

according to Regulation (EU) No. 1907/2006

## MMA(8.5)MAA Copolymer Series Resists

Print date : 1.7.2009

Product code : MM310XXX

Page 3 of 6

### 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 : colourless, clear  
Odour : hydrocarbons, aromatic.

### Important health, safety and environmental information

#### Changes in the physical state

	Test method
Boiling point :	153 °C
Flash point :	46 °C TCC
Lower explosion limits :	1.5 vol. %
Upper explosion limits :	11.4 vol. %
Vapour pressure :	3.6 hPa
(at 20 °C)	
Density (at 25 °C) :	1.030-1.058 g/cm <sup>3</sup>
Water solubility :	slightly soluble

### Other information

Ignition temperature : 400 °C

## 10. Stability and reactivity

### Conditions to avoid

UV-radiation/sunlight. heat.

### Materials to avoid

Acid, concentrated. Alkalis (alkalis), concentrated. Oxidizing agents, strong.

### Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

## 11. Toxicological information

### Acute toxicity

## Safety Data Sheet

according to Regulation (EU) No. 1907/2006

### MMA(8.5)MAA Copolymer Series Resists

Print date : 1.7.2009

Product code : MM310XXX

Page 4 of 6

Acute toxicity, oral LD50: >2000 mg/kg species: Rat.  
 Acute toxicity, dermal LD50: >5000 mg/kg species: Rabbit.  
 Acute toxicity, inhalant LC50: >5.4 mg/l/4h species: Rat.

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 :	1866
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

Resin solution

##### Other applicable information (land transport)

Special provisions: 640E  
 Excepted Quantity: E1  
 Transport category: 3  
 Tunnel restriction code: D/E

##### Inland waterways transport

##### Other applicable information (inland waterways transport)

Not classified for this carrier.

##### Marine transport

UN number :	1866
IMDG code :	3
Marine pollutant :	NO
Hazard label :	3
IMDG packing group :	III
EmS :	F-E, S-E
Limited quantity :	5 L

##### Description of the goods

Resin solution

##### Other applicable information (marine transport)

Special provisions: 223, 944, 955

##### Air transport

UN/ID number :	1866
----------------	------

# Safety Data Sheet

according to Regulation (EU) No. 1907/2006

## MMA(8.5)MAA Copolymer Series Resists

Print date : 1.7.2009

Product code : MM310XXX

Page 5 of 6

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

Resin solution

### Other applicable information (air transport)

Excepted Quantity: E1  
 Passenger-LQ: Y309  
 Cargo-Maximum: 220 L

## 15. Regulatory information

### Labelling

Danger symbols : Xi - Irritant



Xi - Irritant

### R phrases

- 10 Flammable.
- 37 Irritating to respiratory system.
- 41 Risk of serious damage to eyes.

### S phrases

- 24 Avoid contact with skin.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 39 Wear eye/face protection.
- 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### 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: 85-98

### National regulatory information

Employment restrictions : Observe employment restrictions for young people.  
 Water contaminating class (D) : 1 - slightly water contaminating

## 16. Other information

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

- 10 Flammable.
- 37 Irritating to respiratory system.
- 41 Risk of serious damage to eyes.

### Further Information

## Safety Data Sheet

according to Regulation (EU) No. 1907/2006

### MMA(8.5)MAA Copolymer Series Resists

Print date : 1.7.2009

Product code : MM310XXX

Page 6 of 6

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.)*