

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

Developer for Photoresist ma-D 525

Print date : 27.5.2008

Product code : R813200

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

Product group : Entwickler

Identification of the substance or preparation

Developer for Photoresist ma-D 525

Use of the substance/preparation

Chemical Speciality

Company/undertaking identification

Company name : micro resist technology GmbH
 Street : Koepenicker Str. 325, Haus 211
 Place : D-12555 Berlin
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2. Hazards identification

Classification

Indications of danger : Irritant
 R-phrases :
 Irritating to eyes and skin.

3. Composition/information on ingredients

Chemical characterization (preparation)

Tetramethylammonium hydroxide in aqueous solution

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
200-882-9	75-59-2	Tetramethylammonium hydroxide	1,0-<2,5 %	T, N R24-34-50

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. In case of troubles or persistent symptoms, consult an ophthalmologist.

After contact with skin

After contact with skin, wash immediately with plenty of water. 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. 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.

Advice to doctor

Treat symptomatically.

5. Fire-fighting measures

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Suitable extinguishing media

Material is not combustible.

Extinguishing media which must not be used for safety reasons

Extinguishing materials should be selected according to the surrounding area.

Special protective equipment for fire-fighters

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

Additional information

Thermal decomposition can lead to the escape of irritating gases and vapors.

6. Accidental release measures

Personal precautions

Wear personal protection equipment.

Environmental precautions

Do not empty into drains or the aquatic environment. In case of gas being released or leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

Methods for cleaning up/taking up

Soak up inert absorbent and dispose as waste requiring special observation.

7. Handling and storage

Handling**Advice on safe handling**

Use only in well-ventilated areas. Avoid contact with skin and eyes. Keep container tightly closed.

Further information on handling

No special measures are necessary.

Storage**Requirements for storage rooms and vessels**

Keep only in the original container in a cool, well-ventilated place. Keep container dry. Protect against: UV-radiation/sunlight.

8. Exposure controls/personal protection

Exposure limit values**Exposure controls****Occupational exposure controls**

Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat, drink or smoke. Immediately remove any wetted clothing, shoes or stockings.

Respiratory protection

Respiratory protection required in case of: aerosol or mist generation.

Hand protectionTested protective gloves are to be worn: Suitable material: Butyl rubber.
Type of chemical protective gloves to choose depends on the concentration and quantity of dangerous substances as well as on work place specifications.**Eye protection**

Tightly sealed safety glasses.

Skin protectionSuitable protection of the body: Lab apron.
Take off immediately all contaminated clothing.

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9. Physical and chemical properties

General information

Physical state : liquid
 Colour : colourless
 Odour : like: amines

Important health, safety and environmental information

	Test method
pH-Value (at 20 °C) :	12
Changes in the physical state	
Boiling point :	~100 °C
Flash point :	not applicable
Lower explosion limits :	not applicable
Upper explosion limits :	not applicable
Density (at 20 °C) :	1.00 g/cm ³
Water solubility :	highly soluble.
Viscosity / dynamic : (at 25 °C)	<7 mPa·s

10. Stability and reactivity

Conditions to avoid

Product is stable in the test system throughout the duration of the test.

Materials to avoid

acid. Oxidizing agents.

Hazardous decomposition products

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

11. Toxicological information

Acute toxicity

Acute toxicity, oral LD50: 50 mg/kg species: Rat.
 Acute toxicity, dermal LD50: 25 mg/kg species: Guinea-pig.
 Data apply to the technical substance.

12. Ecological information

Ecotoxicity

Acute Daphnia toxicity EC50: 10 - 100 mg/l /48h species: Daphnia magna
 No important reduction of damage observed following neutralisation. Toxic to aquatic organisms. Ecological information refers to active component.

Further information

Do not allow uncontrolled leakage of product into the environment.

13. Disposal considerations

Advice on disposal

Waste disposal according to official state regulations.

14. Transport information

Land transport (ADR/RID)

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Description of the goods

Not a hazardous material with respect to these transportation regulations.

Marine transport

Description of the goods

Not a hazardous material with respect to these transportation regulations.

Air transport

Description of the goods

Not a hazardous material with respect to these transportation regulations.

15. Regulatory information

Labelling

Danger symbols : Xi - Irritant



Xi - Irritant

R phrases

36/38 Irritating to eyes and skin.

S phrases

24/25 Avoid contact with skin and eyes.

Additional advice on labelling

The classification was carried out for tested properties according to the substance directive (67/548/EWG), annex VI, otherwise according to the calculation procedure described in the preparation directive (1999/45/EG).

National regulatory information

Water contaminating class : - - not water contaminating

16. Other information

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

24 Toxic in contact with skin.
34 Causes burns.
36/38 Irritating to eyes and skin.
50 Very toxic to aquatic organisms.

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.)