AZ 5214E  Photoresist

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product information
Trade name : AZ 5214E  Photoresist
Use of the Substance/Mixture : Electronic industry
Intermediate for electronic industry
Company : AZ Electronic Materials (Germany) GmbH
Rheingaustrasse 190-196,
65203 Wiesbaden Germany
Telephone : +49 (0)611 962 8563
Emergency telephone : +49 69 305 6418
E-mail address : PSE@az-em.com
Responsible/issuing person : Product Safety:
+49(0)6126-229248 or +49(0)6126-227340

2. HAZARDS IDENTIFICATION

Classification (67/548/EEC, 1999/45/EC)
Flammable R10: Flammable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization : A mixture of polymer resins and diazo compounds in halogen free organic solvent.

Hazardous components

2-methoxy-1-methylethyl acetate
CAS-No. : 108-65-6
EC-No. : 203-603-9
Classification : R10
GHS Classification : Flam. Liq. 3; H226
Concentration [%] : > 70

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.
4. FIRST AID MEASURES

General advice : Remove soiled or soaked clothing immediately
If someone exposed to the product feels unwell, contact a doctor and show this safety data sheet.
Adhere to personal protective measures when giving first aid

Inhalation : Remove the casualty into fresh air and keep him calm.
Call in a physician immediately and show him the Safety Data Sheet.

Skin contact : In case of contact with skin wash off immediately with polyethylene glycol 400, then with plenty of water
If polyethylene glycol is not available, rinse of with plenty of water.

Eye contact : Rinse immediately with gently running water for 15 minutes, maintaining eyelids open. Consult at once an ophthalmologist or a physician.

Ingestion : Do not induce vomiting.
Call in a physician immediately and show him the Safety Data Sheet.
Let plenty of water be drunk in small gulps.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : water spray jet foam dry powder carbon dioxide

Specific hazards during fire fighting : In case of fires, hazardous combustion gases are formed:
Carbon monoxide (CO) Nitrous gases (NOx) Sulphur dioxide (SO2)

Special protective equipment for fire-fighters : Well closed full protective clothing (coat and pants) including helmet.
Use self-contained breathing apparatus

Further information : Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.
6. ACCIDENTAL RELEASE MEASURES

<table>
<thead>
<tr>
<th>Personal precautions</th>
<th>See: Exposure controls and personal protection.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental precautions</td>
<td>Do not allow entry to drains, water courses or soil</td>
</tr>
<tr>
<td>Methods for cleaning up</td>
<td>Pick up with liquid binding materials and if necessary fill in containers capable of being locked. Containers in which split substance has been collected must be adequately labelled. Dispose of absorbed material in accordance with the regulations. Clean contaminated floors and objects thoroughly, observing environmental regulations</td>
</tr>
<tr>
<td>Additional advice</td>
<td>Information regarding Safe handling, see chapter 7. Information regarding personal protective measures see, chapter 8. Information regarding Waste Disposal, see chapter 13.</td>
</tr>
</tbody>
</table>

7. HANDLING AND STORAGE

**Handling**

<table>
<thead>
<tr>
<th>Advice on safe handling</th>
<th>Provide good ventilation of working area (local exhaust ventilation if necessary).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advice on protection against fire and explosion</td>
<td>Keep away from sources of ignition</td>
</tr>
</tbody>
</table>

**Storage**

| Requirements for storage areas and containers | Keep only in the original container |
| Further information on storage conditions | Keep container tightly closed and dry in a cool, well-ventilated place. Protect from light. |
| Advice on common storage | Do not store or transport together with foodstuffs |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>275 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Further information</td>
<td></td>
<td></td>
<td>skin: Identifies the possibility of significant uptake through the skin</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Indicative</td>
<td></td>
<td></td>
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<tr>
<td>STEL</td>
<td></td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>2000-06-16</td>
<td>2000/39/EC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>550 mg/m³</td>
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<tr>
<td>Further information</td>
<td></td>
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<td>skin: Identifies the possibility of significant uptake through the skin</td>
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<td></td>
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</tr>
</tbody>
</table>

Engineering measures

See chapter 7; no measures exceeding the ones mentioned are necessary.

Personal protective equipment

Respiratory protection: Use respiratory protection in case of insufficient exhaust ventilation or prolonged exposure

Hand protection:
- Break through time: > 10 min
- Glove thickness: > 0.4 mm
- For short-term exposure (splash protection):
  Nitrile rubber gloves.
- Remarks: These types of protective gloves are offered by various manufacturers. Please note the manufacturers’ detailed statements, especially about the minimum thickness and the minimum breakthrough time. Consider also the particular working conditions under which the gloves are being used.

Eye protection: tightly fitting safety glasses

Skin and body protection: protective clothing

Hygiene measures:
- At work do not eat, drink, smoke or take drugs.
- Keep away from foodstuffs and beverages.
- Wash hands before breaks and after work.
- Use barrier skin cream.
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Protective measures
: Do not inhale vapours
Avoid contact with eyes and skin
Observe the usual precautions for handling chemicals.

Environmental exposure controls
General advice
: Do not allow entry to drains, water courses or soil

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form : Liquid
Colour : yellow to red
Odour : ester-like

Safety data
Flash point : approx. 42 °C
Method: DIN 51755 (closed cup)
Ignition temperature : not determined
Lower explosion limit : not determined
Upper explosion limit : not determined
Flammability (solid, gas) : not determined
Oxidizing properties : not determined
Autoignition temperature : not determined
Burning number : not determined
pH : Note: not reasonable
Freezing point : not determined
Starts to boil : from 145 °C
Sublimation point : not determined
Vapour pressure : approx. 5 hPa
at 20 °C
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Density : approx. 1 g/cm³ at 20 °C

Water solubility : Note: The solvent is partially water soluble but the product forms two layers.

Partition coefficient: n-octanol/water : not determined
Solubility in other solvents : not determined

Viscosity, dynamic : 22 - 26 mPas at 20 °C
Viscosity, kinematic : not determined
Relative vapour density : not determined
Evaporation rate : not determined

10. STABILITY AND REACTIVITY

Hazardous decomposition products : when handled and stored appropriately no dangerous decomposition products are known
Thermal decomposition : Note: No decomposition if used as prescribed.
Hazardous reactions : Incompatible with oxidizing materials.

11. TOXICOLOGICAL INFORMATION

Further information : No toxicological testing was carried out on the preparation. The product was classified on the basis of the calculation procedure of the Dangerous Preparations Directive (1999/45/EC).

12. ECOLOGICAL INFORMATION

Additional ecological information : Do not allow to enter soil, waterways or waste water
No ecological testing was carried out on the preparation
The product was classified on the basis of the calculation

13. DISPOSAL CONSIDERATIONS

Product: Product should be taken to a suitable and authorized waste disposal site in accordance with relevant regulations and if necessary after consultation with the waste disposal operator and/or the competent Authorities

Contaminated packaging: Packaging that cannot be cleaned should be disposed of as product waste

14. TRANSPORT INFORMATION

IATA
UN-Number: 1993
Description of the goods: Flammable liquid, n.o.s. (2-Methoxy-1-methylethyl acetate)
Class: 3
Packing group: III
Labels: 3
Environmentally hazardous: no

IMDG
UN-Number: 1993
Description of the goods: FLAMMABLE LIQUID, N.O.S. (2-Methoxy-1-methylethyl acetate)
Class: 3
Packing group: III
Labels: 3
EmS Number 1: F-E
EmS Number 2: S-E
Marine pollutant: no

Not permitted.
15. REGULATORY INFORMATION

Labelling according to EC Directives
1999/45/EC
R-phrase(s) : R10 Flammable.
S-phrase(s) : S16 Keep away from sources of ignition - No smoking.
S60 This material and its container must be disposed of as hazardous waste.

Hazardous components which must be listed on the label:
- 108-65-6 2-methoxy-1-methylethyl acetate

16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3
R10 Flammable.

Full text of H-Statements referred to under sections 2 and 3.
H226 Flammable liquid and vapour.

Decimal notation: “Thousands” places are identified with a dot (example: 2.000 mg/kg means “two thousand mg/kg”). Decimal places are identified with a comma (example: 1,35 g/cm³)

Further information
Contains: < 0.5% 2-methoxypropylacetate, CAS no.: 70657-70-4. EC Classification : T, R 10-37-61

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
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