SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: AZ 6624 Photoresist

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture: Electronic industry
Intermediate for electronic industry

1.3 Details of the supplier of the safety data sheet

Company: 

E-mail address of person responsible for the SDS: PSE@azem.com

Responsible/issuing person: Product Safety:
+49(0)6126-229248 or +49(0)6126-227340

1.4 Emergency telephone number

Emergency telephone number:

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

GHS Classification
Flammable liquids, Category 3
H226: Flammable liquid and vapour.

Classification (67/548/EEC, 1999/45/EC)

Flammable
R10: Flammable.

2.2 Label elements

GHS-Labelling
Symbol(s):  

Signal word: Warning

Hazard statements: H226 Flammable liquid and vapour.

Precautionary statements:

Prevention:  
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P233 Keep container tightly closed.

Response:  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:  
P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:  
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards
No information available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical characterization
Preparation of polymer resins and diazo compounds in organic solvents (halogenfree).

<table>
<thead>
<tr>
<th>Hazardous components</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bis-(5-acetyl-2,3,4-trihydroxy-phenyl)-methane, mixture of esters with 6-Diazo-5, 6-dihydro-5-oxonaphthalene-1-sulfonylchloride and 3-Diazo-3, 4-dihydro-6-methoxy-4-oxonaphthalene-1-sulfonylchloride</strong></td>
</tr>
<tr>
<td>EC-No.</td>
</tr>
<tr>
<td>Registration number</td>
</tr>
<tr>
<td>Classification(67/548/EEC)</td>
</tr>
<tr>
<td>Classification</td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Take off all contaminated clothing immediately. If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.

Inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin contact : Wash off immediately with plenty of water. If skin irritation persists, call a physician.

Eye contact : Immediately flush eye(s) with plenty of water.
Protect unharmed eye.
Remove contact lenses.

Ingestion: If symptoms persist, call a physician.
Show this safety data sheet to the doctor in attendance.

4.3 Indication of any immediate medical attention and special treatment needed
Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:
- Water spray jet
- Foam
- Dry powder
- Carbon dioxide (CO2)

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for firefighters

Special protective equipment for firefighters:
- Well closed full protective clothing (coat and pants) including helmet.
- In the event of fire, wear self-contained breathing apparatus.

Further information:
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions:
Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions:
- Do not flush into surface water or sanitary sewer system.
- Avoid subsoil penetration.

6.3 Methods and materials for containment and cleaning up
Methods for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly while observing environmental regulations.

6.4 Reference to other sections
Additional advice: Information regarding Waste Disposal, see chapter 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Advice on safe handling: Provide sufficient air exchange and/or exhaust in work rooms.
Advice on protection against fire and explosion: Keep away from sources of ignition

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers: Store in original container.
Further information on storage conditions: Keep container tightly closed in a dry and well-ventilated place. Protect against light.
Advice on common storage: Keep away from food and drink.

7.3 Specific end use(s)
No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>2-methoxy-1-methylethyl acetate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS-No.</td>
<td>108-65-6</td>
</tr>
<tr>
<td>Value</td>
<td>TWA</td>
</tr>
<tr>
<td>Control parameters</td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td>275 mg/m3</td>
</tr>
<tr>
<td>Update</td>
<td>2009-12-19</td>
</tr>
<tr>
<td>Basis</td>
<td>2000/39/EC</td>
</tr>
</tbody>
</table>
Further information: skin: Identifies the possibility of significant uptake through the skin
Indicative Value: STEL

Control parameters:
- 100 ppm
- 550 mg/m³

Update: 2009-12-19
Basis: 2000/39/EC

Further information: skin: Identifies the possibility of significant uptake through the skin
Indicative Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:
2-methoxy-1-methylethyl acetate:
- End Use: Workers
  - Exposure routes: Skin contact
  - Potential health effects: Chronic effects
  - Value: 54.8 mg/kg

  End Use: Workers
  - Exposure routes: Inhalation
  - Potential health effects: Chronic effects
  - Value: 33 mg/m³

  End Use: Workers
  - Exposure routes: Ingestion
  - Potential health effects: Chronic effects
  - Value: 1.67 mg/kg

  End Use: Consumers
  - Exposure routes: Skin contact
  - Potential health effects: Chronic effects
  - Value: 153.5 mg/kg

  End Use: Consumers
  - Exposure routes: Inhalation
  - Potential health effects: Chronic effects
  - Value: 275 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:
2-methoxy-1-methylethyl acetate:
- Fresh water
  - Value: 0.635 mg/l

  Marine water
  - Value: 0.0635 mg/l

  Fresh water sediment
  - Value: 3.29 mg/kg

  Marine sediment
  - Value: 0.329 mg/kg
8.2 Exposure controls

Engineering measures
Provide sufficient air exchange and/or exhaust in work rooms.

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 goggles
- Skin and body protection: protective clothing
- Hygiene measures: When using do not eat, drink or smoke.
  - Keep away from food and drink.
  - Wash hands before breaks and at the end of workday.
  - Use barrier skin cream.
- Protective measures: Do not breathe vapours or spray mist.
  - Avoid contact with skin and eyes.
  - Observe the usual precautions for handling chemicals.

Environmental exposure controls
- General advice: Do not flush into surface water or sanitary sewer system.
  - Avoid subsoil penetration.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

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

**Safety data**

- **Flash point**: approx. 42 °C
- **Ignition temperature**: not determined
- **Thermal decomposition**: not determined
- **Lower explosion limit**: not determined
- **Upper explosion limit**: not determined
- **Flammability (solid, gas)**: not determined
- **Oxidizing properties**: not determined
- **Auto-ignition temperature**: not determined
- **Burning number**: not determined
- **pH**: not applicable
- **Freezing point**: not determined
- **Starts to boil**: from 145 °C
- **Sublimation point**: not determined
- **Vapour pressure**: approx. 5 hPa, 20 °C
- **Density**: approx. 1 g/cm3, 20 °C
- **Water solubility**: 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**: 58 - 60 mPas, 20 °C
- **Viscosity, kinematic**: not determined
- **Relative vapour density**: not determined
- **Corrosive in contact with metals**: not determined
- **Evaporation rate**: not determined

**9.2 Other information**

Further information: Remarks: No information available.

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

No dangerous reaction known under conditions of normal use.

**10.2 Chemical stability**

No decomposition if stored and applied as directed.

**10.3 Possibility of hazardous reactions**

Hazardous reactions: Incompatible with oxidizing materials.
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

AZ 6624 Photoresist
Substance No.: SXR081564
Version 2.2
Revision Date 24.09.2014
Print Date 13.08.2015

10.4 Conditions to avoid
Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials
Materials to avoid : Oxidizing agents
Strong acids
Bases

10.6 Hazardous decomposition products
Hazardous decomposition products : No decomposition if stored and applied as directed.

SECTION 11: Toxicological information
11.1 Information on toxicological effects

Product
Acute oral toxicity : no data available
Acute inhalation toxicity : no data available
Acute dermal toxicity : no data available
Skin corrosion/irritation : no data available
Serious eye damage/eye irritation : no data available
Respiratory or skin sensitisation : no data available
Germ cell mutagenicity
Genotoxicity in vitro : no data available
Genotoxicity in vivo : no data available
STOT - repeated exposure : no data available
Further information : no data available

Components:
Bis-(5-acetyl-2,3,4-trihydroxy-phenyl)-methane, mixture of esters with 6-Diazo-5, 6-dihydro-5-oxonaphthalene-1-sulfonylechloride and :
Acute oral toxicity : LD50: > 2.000 mg/kg, rat, OECD Test Guideline 401
Skin corrosion/irritation : rabbit, Result: No skin irritation, OECD Test Guideline 404
Serious eye damage/eye irritation : rabbit, Result: No eye irritation, OECD Test Guideline 405
irritation
Respiratory or skin sensitisation: Maximisation Test, guinea pig, Result: Did not cause sensitisation on laboratory animals. OECD Test Guideline 406

Germ cell mutagenicity
Genotoxicity in vitro: Ames test, with or without metabolic activation, Result: positive
Chromosome aberration test in vitro, hamster, Result: negative
In vitro assay, hamster, with or without metabolic activation, Result: negative

Genotoxicity in vivo: In vivo micronucleus test, mouse, Bone marrow, Result: negative

STOT - repeated exposure: rat, NOAEL: 1.000 mg/kg

2-methoxypropyl acetate:
Reproductive toxicity: May damage the unborn child.

2-methoxy-1-methylethyl acetate:
Acute oral toxicity: LD50: > 8.532 mg/kg, rat (female)
Acute inhalation toxicity: LC50: > 10.8 mg/l, 6 h, rat,
Acute dermal toxicity: LD50: > 5.000 mg/kg, rabbit

SECTION 12: Ecological information

12.1 Toxicity

Product:
Toxicity to fish: Remarks: no data available
Toxicity to daphnia and other aquatic invertebrates: Remarks: no data available
Toxicity to algae: Remarks: no data available
Toxicity to bacteria: Remarks: no data available

Components:
Bis-(5-acetyl-2,3,4-trihydroxy-phenyl)-methane, mixture of esters with 6-Diazo-5, 6-dihydro-5-oxonaphthalene-1-sulfonylchloride and:
Toxicity to fish: LC50 (Danio rerio (zebra fish)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates
EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Test Type: Immobilization
Method: OECD Test Guideline 202

Toxicity to algae
ErC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Test Type: Growth inhibition
Method: OECD Test Guideline 201

Toxicity to bacteria
EC50 (Bacteria): > 1.000 mg/l
Test Type: Respiration inhibition
Method: OECD 209

12.2 Persistence and degradability

Components:
Bis-(5-acetyl-2,3,4-trihydroxy-phenyl)-methane, mixture of esters with 6-Diazolo-5, 6-dihydro-5-oxonaphthalene-1-sulfonylchloride and

Biodegradability
Result: Not readily biodegradable.
Biodegradation: < 20 %
Exposure time: 28 d
Method: OECD 301 F

2-methoxy-1-methylethyl acetate

Biodegradability
Result: Readily biodegradable.
Biodegradation: 99 %
Exposure time: 28 d

12.3 Bioaccumulative potential

Components:
Bis-(5-acetyl-2,3,4-trihydroxy-phenyl)-methane, mixture of esters with 6-Diazolo-5, 6-dihydro-5-oxonaphthalene-1-sulfonylchloride and

Partition coefficient: n-octanol/water
log Pow: 4
12.4 Mobility in soil

**Components:**

2-methoxy-1-methylethyl acetate :
Distribution among environmental compartments : Koc: 1,7
Remarks: Highly mobile in soils

12.5 Results of PBT and vPvB assessment

**Product:**
Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Components:**
2-methoxy-1-methylethyl acetate :
Assessment : The substance does not fulfill the PBT criteria. The substance does not fulfill the vPvB criteria.

12.6 Other adverse effects

**Product:**
Additional ecological information : no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

**Product** : Dispose of contents/container to an approved waste disposal plant.

Contaminated packaging : Dispose of as unused product.

SECTION 14: Transport information

ADR
UN number: 1993  
Description of the goods: FLAMMABLE LIQUID, N.O.S.  
Class: 3  
Packing group: III  
Classification Code: F1  
Hazard Identification Number: 33  
Labels: 3  
Environmentally hazardous: no

IATA  
UN number: 1993  
Description of the goods: Flammable liquid, n.o.s.  
Class: 3  
Packing group: III  
Labels: 3  
Environmentally hazardous: no

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

RID  
UN number: 1993  
Description of the goods: FLAMMABLE LIQUID, N.O.S.  
Class: 3  
Packing group: III  
Classification Code: F1  
Hazard Identification Number: 33  
Labels: 3  
Environmentally hazardous: no

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
International Chemical Weapons Convention (CWC): Neither banned nor restricted  
Schedules of Toxic Chemicals and Precursors:  
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, 108-65-6
preparations and articles (Annex XVII)

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals: Neither banned nor restricted

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).: This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

REACH - List of substances subject to authorisation (Annex XIV): Neither banned nor restricted

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer: Neither banned nor restricted

Regulation (EC) No 850/2004 on persistent organic pollutants: Neither banned nor restricted

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for a mixture.

SECTION 16: Other information

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

R10 Flammable.
R11 Highly flammable.
R37 Irritating to respiratory system.
R53 May cause long-term adverse effects in the aquatic environment.
R61 May cause harm to the unborn child.

Full text of H-Statements referred to under sections 2 and 3.

H226 Flammable liquid and vapour.
H228 Flammable solid
H242 Heating may cause a fire.
H335 May cause respiratory irritation.
H360D May damage the unborn child.
H413 May cause long lasting harmful effects to aquatic life.

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

Further information: Observe national and local legal requirements
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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