SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : AZ 9260 PHOTORESIST (520CPS) (US)
Substance No. : SXR109902
Product Use Description : Intermediate for electronic industry
Company : AZ Electronic Materials USA Corp.
            70 Meister Ave.
            Somerville, NJ 08876
Telephone : 1-908-429-3562
Telefax : 1-908-429-5982
Emergency telephone number : 1-800-424-9300 (CHEMTREC)

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview
OSHA Hazards : COMBUSTIBLE LIQUID
                IRRITANT

GHS Classification
Signal word : Warning
Hazard category, Hazard class : Flammable liquids, Category 3

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Methoxy-2-propanol acetate</td>
<td>108-65-6</td>
<td>55 - 60</td>
</tr>
<tr>
<td>Diazonaphthoquinonesulfonic esters</td>
<td>52125-43-6</td>
<td>&lt;= 5</td>
</tr>
</tbody>
</table>

Non-hazardous ingredients
SECTION 4. FIRST AID MEASURES

First aid procedures

Inhalation : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.

Skin contact : Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.

Eye contact : Remove contact lenses. Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.

Ingestion : Keep respiratory tract clear. If conscious, drink plenty of water. Never give anything by mouth to an unconscious person. Obtain medical attention.

SECTION 5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point : 104 °F (40 °C)
Method: closed cup

Ignition temperature : not determined

Lower explosion limit : not determined

Fire fighting

Suitable extinguishing media : Carbon dioxide, water, alcohol resistant foam, dry chemical.

Further information : Use self-contained breathing apparatus and full protective clothing. Use water spray to cool drums in fire area.

Protective equipment and precautions for firefighters

Specific hazards during fire : Thermal decomposition may generate carbon dioxide, carbon
SAFETY DATA SHEET
AZ 9260 PHOTORESIST (520CPS) (US)

Substance No.: SXR109902
Version 3.1
Revision Date 03/16/2011
Print Date 03/16/2011

fighting monoxide, and oxides of nitrogen and sulfur.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Environmental precautions:
Do not allow uncontrolled discharge of product into the environment. Try to prevent the material from entering drains or water courses. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for containment / Methods for cleaning up:
Wearing appropriate personal protective equipment, contain spill, ventilate area of spill or leak. Collect onto inert absorbent. Place in suitable container.

SECTION 7. HANDLING AND STORAGE

Handling:
Keep away from heat and flame. Keep container closed. Avoid breathing vapors and contact with skin, eyes, and clothing. Use only with adequate ventilation and proper protective eyewear, gloves, and clothing. Wash thoroughly after handling.

Advice on protection against fire and explosion:
Keep away from sources of ignition. Avoid shock and friction. Keep away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge.

Storage:
Requirements for storage areas and containers:
Keep only in the original container.

Further information on storage conditions:
Keep container tightly closed in a dry and well-ventilated place. May liberate combustible solvent vapors. Store at appropriate temperature. See label for details.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines
Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Methoxy-2-propanol acetate</td>
<td>108-65-6</td>
<td>TWA: 50 ppm</td>
<td>US WEEL</td>
</tr>
</tbody>
</table>

Engineering measures

Engineering measures: Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Eye protection: Safety eyewear to protect against splashes.

Hand protection: For short-term exposure (splash protection):
Nitrile rubber gloves.
Solvent-resistant gloves (butyl-rubber)

Skin and body protection: protective clothing
Clothing suitable to prevent skin contact.

Respiratory protection: In the case of vapour formation use a respirator with an approved filter.
Respirator with filter for organic vapour
Use NIOSH approved respiratory protection.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form: liquid
Color: Clear, amber-red
Odor: Strong, characteristic odor.

Safety data

Flash point: 104 °F (40 °C)
Method: closed cup
Ignition temperature: not determined
Lower explosion limit: not determined
SAFETY DATA SHEET
AZ 9260 PHOTORESIST (520CPS)  (US)

Substance No.: SXR109902
Version 3.1
Revision Date 03/16/2011
Print Date 03/16/2011

pH : Not applicable
Starts to boil : from 273 °F (134 °C)
Vapour pressure : 2.2 Torr
   Method: calculated
Density : 1.07 g/cm³
   at 68 °F (20 °C)
Water solubility : The solvent is water soluble but the product forms two layers.
Partition coefficient: n-octanol/water : not reasonable
Viscosity, dynamic : not determined
VOC : 621 g/l (Calculated value)
Loss on drying : < 60 %

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : Avoid contact with oxidizing agents.
   Avoid contact with strong acids.
   Avoid contact with alkaline materials.

Hazardous decomposition products : Hazardous decomposition products due to incomplete combustion.
   Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

Hazardous reactions : Hazardous polymerisation does not occur.

Chemical stability : Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Data for AZ 9260 PHOTORESIST (520CPS)  (US)

Further information : No toxicological testing was carried out on the preparation.

Data for 1-Methoxy-2-propanol acetate (108-65-6)

Acute oral toxicity : LD50: 8,532 mg/kg
Species: rat

Acute inhalation toxicity : LC50: > 23.8 mg/l
Exposure time: 6 h
Species: rat

Acute dermal toxicity : LD50: > 5,000 mg/kg
Species: rabbit

Skin irritation : Result: non-irritant

Eye irritation : Result: Mild eye irritation

Sensitisation : Species: Guinea pig
Result: non-sensitizing

Data for Diazonapthaquinone ester (67829000004-6567P)

Acute oral toxicity : LD50: > 5,000 mg/kg
Species: rat

Skin irritation : Species: rabbit
Result: slight irritant effect - does not require labelling
Classification: not irritating

Eye irritation : Species: rabbit
Result: No eye irritation
Classification: No eye irritation

12. ECOLOGICAL INFORMATION

Data for AZ 9260 PHOTORESIST (520CPS)  (US)

Elimination information (persistence and degradability)

Biodegradability : No information.

Additional ecological : No ecological testing was carried out on the preparation.
Data for 1-Methoxy-2-propanol acetate (108-65-6)

Ecotoxicity effects

Toxicity to fish

: LC50: 100 - 180 mg/l Exposure time: 96 h  
  Species: Oncorhynchus mykiss

: LC50: 161 mg/l Exposure time: 96 h  
  Species: Fish general (Pisces)

: NOEC: 100 mg/l Exposure time: 96 h  
  Species: Fish general (Pisces)

Toxicity to daphnia and other aquatic invertebrates.

: EC50: > 500 mg/l  
  Species: Daphnia magna

Toxicity to bacteria

: EC20: 1,000 mg/l  
  Exposure time: 30 min  
  Species: activated sludge

Elimination information (persistence and degradability)

Biodegradability

: Method: OECD 302 B
  
  : The product is biodegradable.

Data for Diazonapthaquinone ester (67829000004-6567P)

Ecotoxicity effects

Toxicity to bacteria

: EC50: > 7 mg/l  
  Species: Bacteria

Elimination information (persistence and degradability)

Biodegradability

: Result: Not readily biodegradable.  
  Method: OECD 301 D
SECTION 13. DISPOSAL CONSIDERATIONS

Further information : Dispose of as hazardous waste in compliance with local and national regulations. For disposal, this material is a flammable hazardous waste under RCRA.

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

RCRA hazardous waste : RCRA number: D001
Yes -- If it becomes a waste as sold.

SECTION 14. TRANSPORT INFORMATION

DOT
Not restricted

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
Packing instruction (cargo aircraft) : 310
Packing instruction (passenger aircraft) : 309
Packing instruction (passenger aircraft) : Y309
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
SECTION 15. REGULATORY INFORMATION

**Notification status**

**US.TSCA**
: All components of this product are listed on the TSCA Inventory.

**DSL**
: This product contains one or several components that are not on the Canadian DSL nor NDSL lists.

**WHMIS Classification**
: B3: Combustible Liquid

**SARA 302 Reportable Quantity**

**Carcinogenicity**

**EPCRA - Emergency Planning and Community Right-to-Know Act**

**SARA 302 Reportable Quantity**
: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313**: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

**Ozone-Depletion Potential**
: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
</tr>
</tbody>
</table>
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

**Toluene** 108-88-3

**US State Regulations**

**Massachusetts Right To Know Components**

- No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**

- 1-Methoxy-2-propanol acetate 108-65-6
- Cresol novolak resin 67829000004-5653P
- Diazonaphthoquinonesulfonic esters 52125-43-6
- Toluene 108-88-3

**New Jersey Right To Know Components**

- 1-Methoxy-2-propanol acetate 108-65-6
- Cresol novolak resin 67829000004-5653P
- Diazonaphthoquinonesulfonic esters 52125-43-6

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**Other Regulatory Information:**

Remarks:
This product is subject to the Export and Customs Control Regulations of the United States and is not to be exported or transferred without prior notification and approval by AZ Electronic Materials USA Corp and obtaining proper U.S.A. and local government authorizations.
ECCN 3C992

---

**SECTION 16. OTHER INFORMATION**

**Further information**

**HMIS Classification**

- Health hazard: 2
SAFETY DATA SHEET
AZ 9260 PHOTORESIST (520CPS) (US)

Substance No.: SXR109902
Version 3.1
Revision Date 03/16/2011
Print Date 03/16/2011

Flammability: 2
Reactivity: 0
PPE: X

NFPA Classification:
- Health hazard: 2
- Fire Hazard: 2
- Reactivity Hazard: 0
- Special Hazards: NONE

GHS-Labelling
Symbol(s):
- Flammable liquid symbol

Signal word:
- Warning

Hazard statements:
- Flammable liquid and vapour.

Precautionary statements:
Prevention:
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Keep container tightly closed.
- Ground/bond container and receiving equipment.
- Use explosion-proof electrical/ ventilating/ lighting/ equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Wash skin thoroughly after handling.
- Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
- IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/ attention.
- In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

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

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

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications.

AZ Is a Trademark or a registered trademark and the AZ logo is a registered trademark of AZ. (R) and TM indicate trademarks of AZ Electronic Materials USA Corp., its business partners and suppliers.