

**AZ 5214 E Photoresist**

**0005**

Substance No.: SXR081505  
Version 1.0 DE-GHS

Revision Date 17.04.2015

Print Date 13.08.2015

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

**1.1 Product identifier**

Trade name : AZ 5214 E Photoresist 0005

**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@merckgroup.com](mailto:PSE@merckgroup.com)

**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.

**2.2 Label elements**

**GHS-Labeling**

Symbol(s) :



Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.

Precautionary statements : **Prevention:**  
P210 Keep away from heat/sparks/open

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## AZ 5214 E Photoresist

0005

Substance No.: SXR081505  
Version 1.0 DE-GHS

Revision Date 17.04.2015

Print Date 13.08.2015

P280 flames/hot surfaces. - No smoking.  
Wear protective gloves/ protective clothing/  
eye protection/ face protection.

**Response:**  
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ 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 for extinction.

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

### 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).

#### Hazardous components

##### 3,5-Bis(hydroxymethyl)-p-cresol

CAS-No. : 91-04-3  
EC-No. : 202-036-4  
Classification : Skin Irrit. 2; H315  
(REGULATION (EC) No Eye Irrit. 2; H319  
1272/2008) STOT SE 3; H335

Concentration [%] :  $\geq 1 - < 3$

##### 2-methoxypropyl acetate

CAS-No. : 70657-70-4  
EC-No. : 274-724-2  
Classification : Flam. Liq. 3; H226  
(REGULATION (EC) No Repr. 1B; H360D  
1272/2008) STOT SE 3; H335

Concentration [%] :  $< 0,3$

#### WEL substance :

##### 2-methoxy-1-methylethyl acetate

CAS-No. : 108-65-6  
EC-No. : 203-603-9

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## AZ 5214 E Photoresist

0005

Substance No.: SXR081505  
Version 1.0 DE-GHS

Revision Date 17.04.2015

Print Date 13.08.2015

Registration number : 01-2119475791-29-xxxx  
Classification : Flam. Liq. 3; H226  
(REGULATION (EC) No 1272/2008)  
Concentration [%] :  $\geq 50 - \leq 100$

For explanation of abbreviations see section 16.

### 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 (CO<sub>2</sub>)

#### 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)

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## AZ 5214 E Photoresist

0005

Substance No.: SXR081505  
Version 1.0 DE-GHS

Revision Date 17.04.2015

Print Date 13.08.2015

Nitrous gases (NO<sub>x</sub>)  
Sulphur dioxide (SO<sub>2</sub>)

### 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.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## AZ 5214 E Photoresist

0005

Substance No.: SXR081505  
Version 1.0 DE-GHS

Revision Date 17.04.2015

Print Date 13.08.2015

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

<b>Components</b>	:	<b>2-methoxy-1-methylethyl acetate</b>
CAS-No.	:	108-65-6
Value	:	AGW
Control parameters	:	50 ppm 270 mg/m <sup>3</sup>
Category short-time exposure	:	1;(I)
Update	:	2006-01-01
Basis	:	DE TRGS 900
Further information	:	DFG: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).European Union (The EU has established a limit value: deviations in value and peak limit are possible)When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child

<b>Components</b>	:	<b>2-methoxypropyl acetate</b>
CAS-No.	:	70657-70-4
Value	:	AGW
Control parameters	:	5 ppm 28 mg/m <sup>3</sup>
Category short-time exposure	:	8;(II)
Update	:	2006-01-01
Basis	:	DE TRGS 900
Further information	:	DFG: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).Skin absorptionWhen there is compliance with the OEL and biological tolerance values, harm to the unborn child can not be excluded

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

2-methoxy-1-methylethyl : End Use: Workers

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## AZ 5214 E Photoresist

0005

Substance No.: SXR081505  
Version 1.0 DE-GHS

Revision Date 17.04.2015

Print Date 13.08.2015

acetate

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/m<sup>3</sup>

End Use: Workers  
Exposure routes: Ingestion  
Potential health effects: Chronic effects  
1,67 mg/kg

End Use: Consumers  
Exposure routes: Skin contact  
Potential health effects: Chronic effects  
153,5 mg/kg

End Use: Consumers  
Exposure routes: Inhalation  
Potential health effects: Chronic effects  
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

Soil  
Value: 0,29 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

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## AZ 5214 E Photoresist

0005

Substance No.: SXR081505  
Version 1.0 DE-GHS

Revision Date 17.04.2015

Print Date 13.08.2015

- ventilation or prolonged exposure  
Recommended Filter type:  
ABEK-filter
- 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

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## AZ 5214 E Photoresist

0005

Substance No.: SXR081505  
Version 1.0 DE-GHS

Revision Date 17.04.2015

Print Date 13.08.2015

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/cm <sup>3</sup> , 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	: 22 - 26 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.

### 10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

### 10.5 Incompatible materials

Materials to avoid : Oxidizing agents  
Strong acids  
Bases



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## AZ 5214 E Photoresist

0005

Substance No.: SXR081505  
Version 1.0 DE-GHS

Revision Date 17.04.2015

Print Date 13.08.2015

### 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  
Further information : no data available

#### Components:

##### **3,5-Bis(hydroxymethyl)-p-cresol :**

Skin corrosion/irritation : Result: Irritating to skin.  
Serious eye damage/eye irritation : Result: Irritating to eyes.  
STOT - single exposure : Assessment: May cause respiratory irritation.

##### **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

#### Components:

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## AZ 5214 E Photoresist

0005

Substance No.: SXR081505  
Version 1.0 DE-GHS

Revision Date 17.04.2015

Print Date 13.08.2015

### 2-methoxy-1-methylethyl acetate:

Toxicity to fish : LC50 (Oryzias latipes (Orange-red killifish)): 100 mg/l  
Exposure time: 96 h  
Test Type: semi-static test

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 373 mg/l  
aquatic invertebrates Exposure time: 48 h

### 12.2 Persistence and degradability

#### Components:

#### 2-methoxy-1-methylethyl acetate :

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

### 12.3 Bioaccumulative potential

#### Components:

#### 2-methoxy-1-methylethyl acetate :

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n- : log Pow: 1,2  
octanol/water

### 12.4 Mobility in soil

#### Components:

#### 2-methoxy-1-methylethyl acetate :

Distribution among : Koc: 1,7  
environmental compartments Remarks: Highly mobile in soils

### 12.5 Results of PBT and vPvB assessment

#### 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 : no data available  
information

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## AZ 5214 E Photoresist

0005

Substance No.: SXR081505  
Version 1.0 DE-GHS

Revision Date 17.04.2015

Print Date 13.08.2015

### 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.  
(2-Methoxy-1-methylethyl acetate)  
Class : 3  
Packing group : III  
Classification Code : F1  
Labels : 3  
Environmentally hazardous : no

#### 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

#### RID

- UN number : 1993  
Description of the goods : FLAMMABLE LIQUID, N.O.S.  
(2-Methoxy-1-methylethyl acetate)  
Class : 3

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## AZ 5214 E Photoresist

0005

Substance No.: SXR081505  
Version 1.0 DE-GHS

Revision Date 17.04.2015

Print Date 13.08.2015

Packing group : III  
Classification Code : F1  
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) Schedules of Toxic Chemicals and Precursors : Neither banned nor restricted

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : 108-65-6

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

Water contaminating class (Germany) : 2 water polluting

Other regulations : Observe the provisions of The Water Act for installations dealing with substances hazardous to water

#### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for a mixture.

### SECTION 16: Other information

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

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## AZ 5214 E Photoresist

0005

Substance No.: SXR081505

Revision Date 17.04.2015

Print Date 13.08.2015

Version 1.0 DE-GHS

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H360D	May damage the unborn child.

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/cm<sup>3</sup>)

### 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.

AZ and the AZ logo are trademarks of Merck KGaA, Darmstadt, Germany or its affiliates.

# MATERIAL SAFETY DATA SHEET

## AZ 5214 E Photoresist IN (US)

Substance key: BBG70D9  
Version : 1 - 2 / USA

Revision Date: 10/08/2002  
Date of printing :07/15/2004

### Section 01 - Product Information

<b>Identification of the company:</b>	Clariant Corporation  70 Meister Avenue Somerville, NJ 08876 Telephone No.: +1 (800) 515-4164
	<b>Information of the substance/preparation:</b> Electronic Materials Product Safety 1-908-429-3562
	<b>Emergency tel. number:</b> +1 800-424-9300 CHEMTREC

**Trade name:** AZ 5214 E Photoresist IN (US)  
**Material number:** 105659

### Section 02 - Composition information on hazardous ingredients

#### OSHA hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
1-Methoxy-2-propanol acetate	108-65-6	73 %

### Section 03 - Hazards identification

<b>Emergency overview:</b>	OSHA combustible liquid; DOT flammable liquid. Amber-red liquid with characteristic odor. Irritating on contact or inhalation. Partially dissolves in water leaving a floating viscous mass.
----------------------------	---

#### Expected Route of entry:

<b>Inhalation:</b>	yes
<b>Skin contact:</b>	yes
<b>Eye contact:</b>	yes
<b>Ingestion:</b>	no
<b>Skin absorption:</b>	yes

#### Health effects of exposure:

Eye: Causes eye irritation. Skin: Causes skin irritation. Ingestion: May be harmful if swallowed. Inhalation: Single exposure unlikely to be hazardous. High vapor concentration causes irritation to the nose, throat, and lungs. Systemic Effects: No hazard in normal industrial use. Reproductive & birth defects: Exposures having no adverse effect on the mother should have no effect on the fetus.

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

# MATERIAL SAFETY DATA SHEET

## AZ 5214 E Photoresist IN (US)

Substance key: BBG70D9  
Version : 1 - 2 / USA

Revision Date: 10/08/2002  
Date of printing :07/15/2004

1-Methoxy-2-propanol acetate (PGMEA) can cause skin, eye, and respiratory irritation. Extreme or prolonged exposure may cause gastric and central nervous system effects. Long term, high level exposure to PGMEA has resulted in adverse effects to the livers and kidneys of experimental animals. PGMEA is readily absorbed through intact skin.

<b>Known effects on other illnesses:</b>	Preexisting skin, eye, and respiratory conditions may be aggravated.
<b>Listed carcinogen:</b>	IARC: NO NTP: NO OSHA: NO

**HMIS:**

Health: 2

Flammability: 2

Reactivity: 0

Personal protection: X

### Section 04 - First aid measures

**After inhalation:**

Remove victim to fresh air.  
Consult physician if irritation occurs.

**After contact with skin:**

Immediately remove contaminated clothing. Flush affected area thoroughly with water. After flushing with water, remove residue with soap and water. If necessary, clean area with a cloth or paper towel wetted with acetone. Assure adequate ventilation. Dispose of cloth/towel in a suitable receptacle.  
Consult physician if exposure is extensive or if irritation occurs.

**After contact with eyes:**

Flush thoroughly with water for 15 minutes. Get immediate medical help.

**After ingestion:**

If person is conscious, give water or milk to dilute stomach contents.  
Never give anything by mouth to an unconscious person.  
Consult physician.

### Section 05 - Fire fighting measures

**Flashpoint:** 112 °F  
Method: closed cup

**Decomposition products:** Thermal decomposition may generate carbon dioxide, carbon monoxide, and oxides of nitrogen and sulfur.

**Extinguishing media:** Carbon dioxide, water, alcohol foam, dry chemical.

**Fire-fighting further advice:**

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

**Hazards during fire-fighting:**

Solvent vapors.  
Emits toxic fumes under fire conditions.

### Section 06 - Accidental release measures

# MATERIAL SAFETY DATA SHEET

## AZ 5214 E Photoresist IN (US)

Substance key: BBG70D9  
Version : 1 - 2 / USA

Revision Date: 10/08/2002  
Date of printing :07/15/2004

### Steps to be taken in case of spill or leak:

Wearing appropriate personal protective equipment, contain spill, ventilate area of spill or leak, remove all sparking devices or ignition sources, collect onto inert absorbent, and place in a suitable container.

## Section 07 - Handling and storage

### Advice on safe handling:

Keep away from heat and flame.  
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.  
Keep container closed.

### Further info on storage conditions:

Store at appropriate temperature. See label for details.  
Store in original container.  
Transport and store under dry conditions tightly closed and protected from heat and light.  
Pressure may build up slowly in closed containers due to gradual decomposition. This is accelerated by heat and light. May liberate combustible solvent vapors.

## Section 08 - Exposure controls / personal protection

### Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	108-65-6	US WEEL Guides Data	Time Weighted Average (TWA):	100 ppm	541 mg/m <sup>3</sup>

**Advice on system design:** Use local exhaust ventilation.

## Section 09 - Physical and chemical properties

**Form:** Liquid  
**Color:** Clear, amber-red  
**Odor:** Strong, characteristic odor.  
**Solubility in water:** The solvent is water soluble but the product forms two layers.  
**Density:** 1.038 g/cm<sup>3</sup>  
**Starts to boil :** 273.2 °F  
**Evaporation number:** app.  
Reference substance: n-butyl acetate  
**Vapor pressure:** 2.6 Torr  
**Viscosity / (dynamic):** 24 mPa.s  
**Loss on drying:** 73 %



# MATERIAL SAFETY DATA SHEET

## AZ 5214 E Photoresist IN (US)

Substance key: BBG70D9  
Version : 1 - 2 / USA

Revision Date: 10/08/2002  
Date of printing :07/15/2004

### Section 10 - Stability and reactivity

<b>Chemical stability:</b>	Stable.
<b>Hazardous Polymerization:</b>	Will not occur.
<b>Conditions to avoid:</b>	Avoid contact with oxidizing agents. Avoid contact with strong acids. Avoid contact with alkaline materials.

### Section 11 - Toxicological information

#### Product information:

<b>Acute oral toxicity:</b>	Based on data from components this material is considered, not harmful (rat acute oral LD50 >5000 mg/kg).
<b>Acute inhalation toxicity:</b>	Based on data from components, this material is considered, not harmful (LC50 greater than 10,000 ppm or 200 mg/L), Based on component data, material is considered irritating to the respiratory tract.

#### Component information:

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

<b>Acute oral toxicity:</b>	LD50 8,500 mg/kg (rat)
<b>Acute oral toxicity:</b>	LD50 10,000 mg/kg (rat)
<b>Acute inhalation toxicity:</b>	LC50 >4350 ppm (rat)
<b>Acute dermal toxicity:</b>	LD50 >5.0 g/kg (rabbit)

### Section 12 - Ecological information

#### Component information:

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

<b>Fish toxicity:</b>	161 mg/l (Fathead minnow)
<b>Daphnia toxicity:</b>	400 mg/l (Daphnia magna)

### Section 13 - Disposal considerations

#### Waste disposal information:

Consult local, state, and federal regulations.  
For disposal, this material is a flammable hazardous waste under RCRA.

### Section 14 - Transport information

#### DOT Regulation:

Proper shipping name: Combustible liquid, n.o.s.

# MATERIAL SAFETY DATA SHEET

## AZ 5214 E Photoresist IN (US)

Substance key: BBG70D9  
Version : 1 - 2 / USA

Revision Date: 10/08/2002  
Date of printing :07/15/2004

Hazard class: C  
Packing group: III  
UN/NA-number: NA 1993  
Primary hazard class: NON  
Technical Name: 1-Methoxy-2-propanol acetate  
Emergency Response Guide: 129

### IATA

Proper shipping name: Flammable liquid, n.o.s.  
Class: 3  
Packing group: III  
UN/ID number: UN 1993  
Primary risk: 3  
Hazard inducer(s): 1-Methoxy-2-propanol acetate

### IMDG

Proper shipping name: Flammable liquid, n.o.s.  
Class: 3  
Packing group: III  
UN no.: UN 1993  
Primary risk: 3  
Hazard inducer(s): 1-Methoxy-2-propanol acetate  
EmS: 3-07

### Further information:

Not regulated for surface transportation in non-bulk containers under 119 gallons.

## Section 15 - Regulatory information

### TSCA Status:

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

### SARA 313 information:

This product is not subject to SARA Title III Section 313 reporting requirements under 40 CFR 372.

### Volatile organic compounds VOC:

Content VOC (g/l): 740 g/l  
Method: calculated

# MATERIAL SAFETY DATA SHEET

## AZ 5214 E Photoresist IN (US)

Substance key: BBG70D9  
Version : 1 - 2 / USA

Revision Date: 10/08/2002  
Date of printing :07/15/2004

### Section 16 - Other information

#### Label information:

##### CAUTION!

COMBUSTIBLE LIQUID AND VAPOR HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN Contains material that, based on animal data, can cause skin, eye, and respiratory irritation. Prolonged or repeated overexposure may cause gastric and central nervous system effects.

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

In case of contact, flush eyes with plenty of water for 15 minutes. Get medical attention immediately. Flush affected skin areas with water, and wash with mild soap and water. Remove contaminated clothing. If INHALED, remove individual to fresh air. If breathing is difficult, give oxygen. If ingested, give water or milk to dilute stomach contents. Never give anything by mouth to an unconscious person. Get medical attention immediately for ingestion or breathing problems or if skin contact is extensive.

In case of fire, use water, "alcohol" foam, dry chemical, or CO<sub>2</sub>.

If spilled, wear protective clothing, remove ignition sources, prevent sparks, and ventilate area. Absorb with inert material, collect, and place in a chemical waste container.

Keep sealed in original container. Store between 30 and 75 °F (-1 and 24 °C). Refrigerate whenever possible to extend shelf life. Allow product to reach ambient temperature prior to use. Empty container may contain harmful residue.

The solvent in this product is not photochemically reactive per Rule 102 of the California South Coast Air Quality Management District.

#### NFPA:

Health: 2

Flammability: 2

Reactivity: 0

Special Notice: NONE

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. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.