



AZ nLOF 2070 Photoresist

Substance No.: 000000071668
Version 42

Revision Date 17.12.2012

Print Date 17.12.2012

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

1.1 Product identifier

Trade name : AZ nLOF 2070 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 : AZ Electronic Materials (Germany) GmbH
Rheingaustrasse 190-196 ,
65203 Wiesbaden Germany

Telephone : +49 (0)611 962 8563

E-mail address : PSE@az-em.com

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

1.4 Emergency telephone number

Emergency telephone number : +49 69 305 6418

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-Labeling

Symbol(s) :



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



AZ nLOF 2070 Photoresist

Substance No.: 000000071668
Version 42

Revision Date 17.12.2012

Print Date 17.12.2012

Signal word	:	Warning	
Hazard statements	:	H226	Flammable liquid and vapour.
Precautionary statements	:	Prevention: P210 P233 P280	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. 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 light sensitive compounds in organic solvents (halogenfree).

Hazardous components

1,3-Benzenedimethanol, 2-hydroxy-5-(1,1,3,3-tetramethylbutyl)-

CAS-No. : 5568-04-7
Registration number : 01-0000019532-72-0000
Classification(67/548/EEC) : Xn; R22

Classification : Acute Tox. 4; H302
(REGULATION (EC) No 1272/2008)
Concentration [%] : < 10

2-methoxypropyl acetate

CAS-No. : 70657-70-4
EC-No. : 274-724-2
Classification(67/548/EEC) : R10

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



AZ nLOF 2070 Photoresist

Substance No.: 000000071668
Version 42

Revision Date 17.12.2012

Print Date 17.12.2012

Repr.Cat.2; R61
Xi; R37

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
Registration number : 01-2119475791-29-xxxx
Classification(67/548/EEC) : R10

Classification : Flam. Liq. 3; H226
(REGULATION (EC) No :
1272/2008)
Concentration [%] : >= 50 - <= 100

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.

SECTION 4: First aid measures

4.1 Description of 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 : 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



AZ nLOF 2070 Photoresist

Substance No.: 00000071668
Version 42

Revision Date 17.12.2012

Print Date 17.12.2012

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Thermal decomposition may generate carbon dioxide and carbon monoxide.

5.3 Advice for firefighters

Special protective equipment for firefighters : Well closed full protective clothing (coat and pants) including helmet.
Use 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 : See: Exposure controls and personal protection.

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 Safe handling, see chapter 7.
Information regarding personal protective measures see,



AZ nLOF 2070 Photoresist

Substance No.: 000000071668
Version 42

Revision Date 17.12.2012

Print Date 17.12.2012

chapter 8.
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 : Normal measures for preventive fire protection.

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 : Do not store or transport together with foodstuffs

7.3 Specific end use(s)

: No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Components	:	2-methoxy-1-methylethyl acetate
CAS-No.	:	108-65-6
Value	:	TWA
Control parameters	:	50 ppm 275 mg/m ³
Update	:	2000-06-16
Basis	:	2000/39/EC
Further information	:	skin: Identifies the possibility of significant uptake through the skin Indicative
Value	:	STEL
Control parameters	:	100 ppm 550 mg/m ³
Update	:	2000-06-16

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



AZ nLOF 2070 Photoresist

Substance No.: 000000071668
Version 42

Revision Date 17.12.2012

Print Date 17.12.2012

Basis	:	2000/39/EC
Further information	:	skin: Identifies the possibility of significant uptake through the skin Indicative

DNEL

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
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

PNEC

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



AZ nLOF 2070 Photoresist

Substance No.: 000000071668
Version 42

Revision Date 17.12.2012

Print Date 17.12.2012

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 : slightly yellowish, clear
Odour : strongly product-specific

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



AZ nLOF 2070 Photoresist

Substance No.: 000000071668
Version 42

Revision Date 17.12.2012

Print Date 17.12.2012

Safety data

Flash point	: approx. 43 °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	: 145 °C
Sublimation point	: not determined
Vapour pressure	: 0,0 hPa
Density	: 1,071 g/cm ³
Water solubility	: not determined
Partition coefficient: n-octanol/water	: not reasonable
Solubility in other solvents	: not determined
Viscosity, dynamic	: 330 mPas
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: Incompatible substances: Bases, Acids, oxidizing agents.
---------------------	---

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 : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



AZ nLOF 2070 Photoresist

Substance No.: 000000071668
Version 42

Revision Date 17.12.2012

Print Date 17.12.2012

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 : Acute Toxicity Estimate (ATE): 44.924 mg/kg, Calculation method
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 sensitization : no data available

Components:

1,3-Benzenedimethanol, 2-hydroxy-5-(1,1,3,3-tetramethylbutyl)- :

Acute oral toxicity : LD50: app. 500 mg/kg, rat(female), 96/54/EC - B1 tris - OECD 423, GLP: yes

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:

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



AZ nLOF 2070 Photoresist

Substance No.: 000000071668
Version 42

Revision Date 17.12.2012

Print Date 17.12.2012

Toxicity to fish : no data available

Toxicity to daphnia and other aquatic invertebrates : no data available

Toxicity to bacteria : no data available

Components:

2-methoxy-1-methylethyl acetate :

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

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

12.2 Persistence and degradability

Product:

Biodegradability : no data available

Components:

2-methoxy-1-methylethyl acetate :

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

12.3 Bioaccumulative potential

Components:

2-methoxy-1-methylethyl acetate :

Bioaccumulation : Bioaccumulation is unlikely.

12.4 Mobility in soil

Components:

2-methoxy-1-methylethyl acetate :

Distribution among environmental compartments : Koc: 1,7, 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

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006



AZ nLOF 2070 Photoresist

Substance No.: 000000071668
Version 42

Revision Date 17.12.2012

Print Date 17.12.2012

SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Product : Dispose of contents/ container to an approved waste disposal plant.
- Contaminated packaging : Packaging that cannot be cleaned should be disposed of as product waste

SECTION 14: Transport information

ADR

- UN number : 1993
Description of the goods : FLAMMABLE LIQUID, N.O.S.
(2-Methoxy-1-methylethyl acetate)
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)
Environmentally hazardous : no

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



AZ nLOF 2070 Photoresist

Substance No.: 000000071668
Version 42

Revision Date 17.12.2012

Print Date 17.12.2012

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

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

: Neither banned nor restricted

Candidate List of Substances of Very High Concern for Authorisation

: This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

EU. REACH - Annex XIV: List of substances subject to authorisation

: 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.
R22	Harmful if swallowed.
R37	Irritating to respiratory system.
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.
H302	Harmful if swallowed.
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/cm³)

Further information

Further information : Observe national and local legal requirements

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



AZ nLOF 2070 Photoresist

Substance No.: 000000071668
Version 42

Revision Date 17.12.2012

Print Date 17.12.2012

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 is a trademark or a registered trademark and the AZ logo is a registered trademark of AZ Electronic Materials.