



AZ NLOF 2070 PHOTORESIST 302-0004

Substance No.: GHSAP0071668
Version 50

Revision Date 31.05.2011

Print Date 22.07.2011

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : AZ NLOF 2070 PHOTORESIST 302-0004

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

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) :



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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.
P280 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.

Labelling according to EC Directives

1999/45/EC

R-phrases(s) : R10 Flammable.

S-phrases(s) : S60 This material and its container must be disposed of as hazardous waste.

2.3 Other hazards

No information available.

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

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Classification(67/548/EEC) : Xn; R22
Classification (REGULATION (EC) No 1272/2008) : Acute Tox. 4; H302
Concentration [%] : < 10

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 (REGULATION (EC) No 1272/2008) : Flam. Liq. 3; H226
Concentration [%] : $\geq 50 - \leq 100$

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.

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 : 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 off with plenty of water.

Eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Remove contact lenses.

Ingestion : Do NOT induce vomiting.
Call in a physician immediately and show him the Safety Data



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Sheet.
If conscious, drink plenty of water.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

5. Fire-fighting measures

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for firefighters

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

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 allow entry to drains, water courses or soil

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Pick up with liquid binding materials and if necessary fill in containers capable of being locked.
Containers in which spilt substance has been collected must be adequately labelled
Dispose of absorbed material in accordance with the



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regulations.
Clean contaminated floors and objects thoroughly, observing environmental regulations

6.4 Reference to other sections

Additional advice : Information regarding Safe handling, see chapter 7.
Information regarding personal protective measures see, chapter 8.
Information regarding Waste Disposal, see chapter 13.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Provide good ventilation of working area (local exhaust ventilation if necessary).

Advice on protection against fire and explosion : Observe the general rules of industrial fire protection

7.2 Conditions for safe storage, including any incompatibilities

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.
Protect against light.

Advice on common storage : Do not store or transport together with foodstuffs

7.3 Specific end uses

8. Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
2-methoxy-1-methylethyl	108-65-6	TWA	50 ppm 275 mg/m ³	2000-06-16	2000/39/EC



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acetate					
Further information	:	skin: Identifies the possibility of significant uptake through the skin Indicative			

		STEL	100 ppm 550 mg/m ³	2000-06-16	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
 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



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Value: 3,29 mg/kg

Marine sediment
Value: 0,329 mg/kg

Soil
Value: 0,29 mg/kg

8.2 Exposure controls

Engineering measures

See chapter7; 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.

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



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9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Form : Liquid
Colour : clear
yellow
Odour : strong
characteristic

Safety data

Flash point : 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
Autoignition temperature : not determined
Burning number : not determined
pH : not reasonable
Freezing point : not determined
Starts to boil : 134 °C
Sublimation point : not determined
Vapour pressure : approx. 2,9 hPa
Density : 1,071 g/cm³
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 : not determined
Viscosity, kinematic : not determined
Relative vapour density : not determined
Evaporation rate : not determined

9.2 Other information

10. Stability and reactivity

10.1 Reactivity



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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.

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.

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)



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Acute inhalation toxicity : LC50: > 10,8 mg/l, 6 h, rat,
Acute dermal toxicity : LD50: > 5.000 mg/kg, rabbit

12. Ecological information

12.1 Toxicity

Product:

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

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12.5 Results of PBT and vPvB assessment

Components:

2-methoxy-1-methylethyl acetate :

Assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

13. Disposal considerations

13.1 Waste treatment methods

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

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
Hazard identification No : 30
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

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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
Packing group : III
Classification Code : F1
Hazard identification No : 30
Labels : 3
Environmentally hazardous : no

15. Regulatory information

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

Candidate List of Substances : Neither banned nor restricted
of Very High Concern for
Authorisation

15.2 Chemical Safety Assessment

16. Other information

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

R10 Flammable.
R22 Harmful if swallowed.

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

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.

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)



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Further information

Further information : Observe national and local legal requirements

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