



SAFETY DATA SHEET
AZ AQUATAR-VIII-A 45
Substance No.: 000000501415
Version 6.1

Revision Date 11/11/2011
Print Date 11/11/2011

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : AZ AQUATAR-VIII-A 45

Product Use Description : Top antireflective coating for Photoresist

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 : CORROSIVE
CAUSES EYE IRRITATION
MAY CAUSE SKIN SENSITIZATION.

GHS Classification

Signal word : Danger

Hazard category, Hazard class : Corrosive to Metals, Category 1

Hazard category, Hazard class : Skin corrosion, Category 1C

Hazard category, Hazard class : Skin sensitization, Category 1

Hazard category, Hazard class : Serious eye damage, Category 1

Hazard category, Hazard class : Reproductive toxicity, Sub-category 1B



SAFETY DATA SHEET
AZ AQUATAR-VIII-A 45
Substance No.: 000000501415
Version 6.1

Revision Date 11/11/2011
Print Date 11/11/2011

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

Component	CAS-No.	Weight percent
Fluoroalkyl acid ester, homopolymer, hydrolyzed	67829000004-6092P	1 - 5
Methanol	67-56-1	< 0.5

Non-hazardous ingredients

Component	CAS-No.	Weight percent
Water	7732-18-5	>= 95

SECTION 4. FIRST AID MEASURES

First aid procedures

- Inhalation : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Get medical attention if irritation develops and persists.
- Skin contact : Wash off immediately with plenty of water for at least 15 minutes. 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 : Water-based material with low level of combustible solid content., Compatible with extinguishing agents.



SAFETY DATA SHEET
AZ AQUATAR-VIII-A 45
Substance No.: 000000501415
Version 6.1

Revision Date 11/11/2011
Print Date 11/11/2011

Fire fighting

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

Further information : Product is non-combustible. Wear breathing apparatus (MSHA/NIOSH-approved, pressure demand, self contained or equivalent) and full protective clothing. Use water spray to cool fire-exposed containers.

Protective equipment and precautions for firefighters

Specific hazards during fire fighting : Thermal decomposition may generate carbon dioxide, carbon monoxide, and oxides of nitrogen.
Also hydrogen fluoride.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Environmental precautions : Do not allow entry to drains, water courses or soil
Prevent spreading by use of suitable barriers.
Local authorities should be advised if significant spillages cannot be contained.

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

Handling : Avoid formation of respirable particles.
Do not get on skin or clothing.
For personal protection see section 8.
Use only in area provided with appropriate exhaust ventilation.

Storage

Requirements for storage areas and containers : Store at room temperature in the original container.
Perishable if frozen.

Further information on storage conditions : Keep container tightly closed in a dry and well-ventilated place.
Store in original container.
Keep from freezing.



SAFETY DATA SHEET
AZ AQUATAR-VIII-A 45
Substance No.: 000000501415
Version 6.1

Revision Date 11/11/2011
Print Date 11/11/2011

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Contains no substances with occupational exposure limit values.

Engineering measures

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

Personal protective equipment

Eye protection : Chemical splash goggles or safety glasses with full face shield to protect against splash.

Hand protection : Rubber gloves

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

Respiratory protection : Breathing apparatus needed only when aerosol or mist is formed.

Respirator with a particle filter (EN 143)

Use NIOSH approved respiratory protection.

Hygiene measures : Observe the usual precautionary measures required for chemicals.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : liquid
Color : Clear, colorless
Odor : slightly pungent

Safety data

Flash point : Water-based material with low level of combustible solid content., Compatible with extinguishing agents.

pH : 1.6
at
77 °F (25 °C)

Boiling point : 212 °F (100 °C)

Density : 1.016 g/cm³

Water solubility : soluble

Loss on drying : > 95 %



SAFETY DATA SHEET
AZ AQUATAR-VIII-A 45
Substance No.: 000000501415
Version 6.1

Revision Date 11/11/2011
Print Date 11/11/2011

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 : Thermal decomposition may generate carbon dioxide, carbon monoxide, and oxides of nitrogen.
Also hydrogen fluoride.
- Hazardous reactions : No dangerous reaction known under conditions of normal use.

SECTION 11. TOXICOLOGICAL INFORMATION

Data for AZ AQUATAR-VIII-A 45

- Acute oral toxicity : Acute Toxicity Estimate (ATE): 13,796 mg/kg
Method: Calculation method
- Skin irritation : Species: rabbit
Result: No skin irritation
Method: OECD 404
- Sensitisation : Skin
Species: mouse
Result: sensitizing
Method: OECD 429
By analogy to homologous product(s).
May cause sensitization of susceptible persons.
- Further information : No toxicological testing was carried out on the preparation.

Data for Fluoroalkyl acid esters ()

- Acute oral toxicity : LD50 Oral: 500 mg/kg
Species: rat
Method: 96/54/EC - B1 tris - OECD 423
- Sensitisation : Buehler Test
Species: mouse
Classification: May cause sensitization by skin contact.
Result: Causes sensitization.
Method: OECD 429
May cause sensitization of susceptible persons by skin contact.



SAFETY DATA SHEET
AZ AQUATAR-VIII-A 45
Substance No.: 000000501415
Version 6.1

Revision Date 11/11/2011
Print Date 11/11/2011

12. ECOLOGICAL INFORMATION

Data for AZ AQUATAR-VIII-A 45

Further information on ecology

Biochemical Oxygen Demand (BOD) : 2,580 mg/l
Chemical Oxygen Demand (COD) : 3,600 mg/l

Additional ecological information : No ecological testing was carried out on the preparation.

SECTION 13. DISPOSAL CONSIDERATIONS

Further information : This product would be considered a hazardous waste under RCRA due to low pH unless neutralized prior to disposal. Contains organically bound fluorine; if incinerated, operator must be advised. Dispose of as hazardous waste in compliance with local and national regulations.

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

RCRA hazardous waste : RCRA number: D002
Yes -- If it becomes a waste as sold.

SECTION 14. TRANSPORT INFORMATION

DOT

Not restricted

TDG

Not restricted

IATA

UN number : 3265
Description of the goods : Corrosive liquid, acidic, organic, n.o.s.
(Fluoroalkyl acid ester, homopolymer, hydrolyzed, C14-17 Alkyl sulfonic acid)
Class : 8
Packing group : III
Labels : 8
Environmentally hazardous : no



SAFETY DATA SHEET

AZ AQUATAR-VIII-A 45

Substance No.: 000000501415
Version 6.1

Revision Date 11/11/2011
Print Date 11/11/2011

IMDG

UN number : 3265
Description of the goods : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
(Fluoroalkyl acid ester, homopolymer, hydrolyzed, C14-17 Alkyl sulfonic acid)
Class : 8
Packing group : III
Labels : 8
EmS Number 1 : F-A
EmS Number 2 : S-B
Marine pollutant : no
Environmentally hazardous : no

SECTION 15. REGULATORY INFORMATION

Notification status

US.TSCA : One or more components of this product are not listed on the TSCA Inventory. The components, however, are covered by Low Volume Exemptions (LVEs). These LVE-based products may only be used in conventional photolithographic processes consistent with their design. For any applications outside of this intended purpose, contact the vendor first.

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

WHMIS Classification : E: Corrosive Material

Canadian PBT Chemicals : This product does not contain any components on the DSL that are classified as Persistent, Bioaccumulative and Toxic (PBT) under CEPA.

CERCLA Reportable Quantity :

This material does not contain any components with a CERCLA RQ.

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 304 Extremely Hazardous Substances : This material does not contain any components with a section 304 EHS RQ.



SAFETY DATA SHEET
AZ AQUATAR-VIII-A 45
Substance No.: 000000501415
Version 6.1

Revision Date 11/11/2011
Print Date 11/11/2011

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).

US. Clean Air Act - Hazardous Air Pollutants (HAP)

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
Methanol 67-56-1

US. Clean Air Act Section 112(r); Regulated toxic and flammable substances for Accidental Release Prevention - 40 CFR 68.130 (subpart F)

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).

US. Clean Air Act Section 111 SOCM I Intermediate or Final Volatile Organic Compunds (VOC) - 40 CFR part 60.489

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

Monoethanolamine	141-43-5
Methanol	67-56-1
2-Propanol	67-63-0

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

US State Regulations

Massachusetts Right To Know Components : No components are subject to the Massachusetts Right to Know Act.



SAFETY DATA SHEET
AZ AQUATAR-VIII-A 45
Substance No.: 000000501415
Version 6.1

Revision Date 11/11/2011
Print Date 11/11/2011

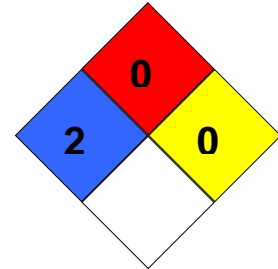
Pennsylvania Right To Know Components	: Water	7732-18-5
	Fluoroalkyl acid ester, homopolymer, hydrolyzed	67829000004-6092P
New Jersey Right To Know Components	: Water	7732-18-5
	Fluoroalkyl acid ester, homopolymer, hydrolyzed	67829000004-6092P

SECTION 16. OTHER INFORMATION

Further information

HMIS Classification : Health hazard: 2*
Flammability: 0
Reactivity: 0
PPE:X

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



GHS-Labeling

Symbol(s) :

Signal word : Danger

Hazard statements : May be corrosive to metals.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
May damage fertility or the unborn child.



SAFETY DATA SHEET
AZ AQUATAR-VIII-A 45
Substance No.: 000000501415
Version 6.1

Revision Date 11/11/2011
Print Date 11/11/2011

Precautionary statements : **Prevention:**
Keep only in original container.
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wear protective gloves/ protective clothing/ eye protection/
face protection.
Response:
IF ON SKIN: Wash with plenty of soap and water.
IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue
rinsing.
IF exposed or if you feel unwell:
Get medical advice/ attention.
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.