SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : AZ EBR 70/30
Material No. : 10064823164
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 AND VAPOUR. MAY CAUSE IRRITATION TO SKIN, EYES AND MUCOUS MEMBRANES. MAY CAUSE RESPIRATORY IRRITATION.

GHS Classification
Signal word : Warning
Hazard category, Hazard class : Flammable liquids, Category 3
Hazard category, Hazard class : Eye irritation, Category 2A
Hazard category, Hazard class : Specific target organ toxicity - single exposure, 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>
</table>

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SECTION 4. FIRST AID MEASURES

First aid procedures

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 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 : 90 °F (32 °C)
Method: closed cup

Fire fighting

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or
carbon dioxide.

Further information : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.
Cool containers / tanks with water spray.

Protective equipment and precautions for firefighters

Specific hazards during fire : As the product contains combustible organic components, fire

will produce dense black smoke containing hazardous products of combustion (see section 10).

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, remove all sparking devices or ignition sources, collect onto inert absorbent, and place in a suitable container.

SECTION 7. HANDLING AND STORAGE

Handling

Handling: Wash thoroughly after handling. 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. Keep away from heat, sparks, and flame.

Advice on protection against fire and explosion: Keep away from sources of ignition. Take precautions against accumulation of electrostatic charge.

Storage

Further information 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. May liberate flammable solvent vapors.

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>
<tr>
<td>1-Methoxy-2-propanol</td>
<td>107-98-2</td>
<td>TWA: 100 ppm</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET
AZ EBR 70/30
Substance No.: 000000500444
Version 3.0

<table>
<thead>
<tr>
<th>STEL:</th>
<th>150 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA:</td>
<td>100 ppm (360 mg/m3)</td>
</tr>
<tr>
<td>STEL:</td>
<td>150 ppm (540 mg/m3)</td>
</tr>
<tr>
<td>TWA:</td>
<td>100 ppm (360 mg/m3)</td>
</tr>
<tr>
<td>ST:</td>
<td>150 ppm (540 mg/m3)</td>
</tr>
</tbody>
</table>

OSHA P0
NIOSH REL

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 : Solvent-resistant gloves
Skin and body protection : Clothing suitable to prevent skin contact.
Respiratory protection : In the case of vapour formation use a respirator with an approved filter.
Use NIOSH approved respiratory protection.

Hygiene measures : Observe the usual precautions when handling chemicals.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form : Liquid
Color : Clear, colorless
Odor : Strong, characteristic odor.

Safety data
Flash point : 90 °F (32 °C)
Method: closed cup
Boiling point : 255 °F (124 °C)
at 1,013 hPa
Method: DIN 51751
Vapour pressure : approx. 10.5 Torr
at 68 °F (20 °C)
Method: calculated

Density: 0.9326 g/cm³
   at 68 °F (20 °C)

Water solubility: The solvent is partially water soluble but the product forms two layers.

VOC: 933 g/l (Calculated value)

Loss on drying: > 98 %

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid: Avoid contact with strong oxidizing agents. Contact with strong acids and bases may cause hydrolysis of product.

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 EBR 70/30

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

Data for 1-Methoxy-2-propanol (107-98-2)

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

Acute inhalation toxicity: LC₅₀: > 7559 ppm
   Exposure time: 6 h
   Species: rat

Acute dermal toxicity: LD₅₀: 13,000 mg/kg
Species: rabbit

Skin irritation : Result: slight irritant effect - does not require labelling

Eye irritation : Result: slight irritant effect - does not require labelling

Sensitisation : Result: No evidence of sensitizing properties.

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

12. ECOLOGICAL INFORMATION

Data for AZ EBR 70/30

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

Data for 1-Methoxy-2-propanol (107-98-2)

Ecotoxicity effects
Toxicity to fish:
- LC50: 6,812 mg/l Exposure time: 96 h
  Species: golden orfe
- LC50: 20,800 mg/l Exposure time: 96 h
  Species: Fathead minnow
- LC50: > 1,000 mg/l Exposure time: 96 h
  Species: rainbow trout

Toxicity to daphnia and other aquatic invertebrates:
- EC50: > 500 mg/l
  Exposure time: 48 h
  Species: Daphnia magna

Toxicity to algae:
- EC50: > 1,000 mg/l
  Exposure time: 96 h
  Species: Green algae

Toxicity to bacteria:
- IC50: > 1,000 mg/l
  Exposure time: 3 h
  Species: activated sludge

Elimination information (persistence and degradability):
Biodegradability:
- 98 %

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.

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 : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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

SECTION 14. TRANSPORT INFORMATION

DOT
UN number : 1993
Description of the goods : Flammable liquids, n.o.s.
(1-Methoxy-2-propanol, 1-Methoxy-2-propanol acetate)
Class : 3
Packing group : III
Labels : 3
Emergency Response : 128
Guidebook Number
Environmentally hazardous : no

IATA
SAFETY DATA SHEET  
AZ EBR 70/30  
Substance No.: 000000500444  
Version 3.0  
Revision Date 10/27/2011  
Print Date 02/03/2012

UN number : 1993  
Description of the goods : Flammable liquid, n.o.s.  
(1-Methoxy-2-propanol, 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.  
(1-Methoxy-2-propanol, 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  
Environmentally hazardous : no

SECTION 15. REGULATORY INFORMATION

Notification status

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

DSL : All components of this product are on the Canadian DSL list.

WHMIS Classification : B2: Flammable liquid

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

IARC : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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.

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)
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

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 SOCMi Intermediate or Final Volatile Organic Compunds (VOC) - 40 CFR part 60.489
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMi Intermediate or Final VOC's (40 CFR 60.489).

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 | 1-Methoxy-2-propanol | 107-98-2 |
| Pennsylvania Right To Know Components | 1-Methoxy-2-propanol | 107-98-2 |
|                                      | 1-Methoxy-2-propanol acetate | 108-65-6 |
| New Jersey Right To Know Components  | 1-Methoxy-2-propanol | 107-98-2 |
|                                      | 1-Methoxy-2-propanol acetate | 108-65-6 |

**SECTION 16. OTHER INFORMATION**

**Further information**

**HMIS Classification**
- Health hazard: 2
- Flammability: 3
- Reactivity: 0
- PPE: X

**NFPA Classification**
- Health hazard: 2
- Fire Hazard: 3
- Reactivity Hazard: 0
- Special Hazards: NONE

**GHS-Labelling**
Symbol(s) : Flammable liquid and vapour.

Signal word : Warning

Hazard statements : Flammable liquid and vapour.
Causes serious eye irritation.
May cause respiratory irritation, and drowsiness or dizziness.

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.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash skin thoroughly after handling.
Wear protective gloves/protection clothing/eye protection/face protection.

Response:
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

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

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 information.
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