



SAFETY DATA SHEET  
AZ LExp.KDB087F 42  
Substance No.: 000000505895  
Version 2.0

Revision Date 02/20/2012  
Print Date 02/20/2012

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : AZ LExp.KDB087F 42  
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 : FLAMMABLE LIQUID  
IRRITANT

### GHS Classification

Signal word : Warning  
Hazard category, Hazard class : Flammable liquids, Category 3  
Hazard category, Hazard class : Skin Irritation, Category 3  
Hazard category, Hazard class : Eye irritation, Category 2B  
Hazard category, Hazard class : Specific target organ toxicity - single exposure, Category 3

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Hazardous ingredients

Component	CAS-No.	Weight percent
1-Methoxy-2-propanol	107-98-2	55 - 65
1-Methoxy-2-propanol acetate	108-65-6	25 - 35
Ethyl lactate	97-64-3	5 - 15



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#### Non-hazardous ingredients

Component	CAS-No.	Weight percent
Modified methacrylate polymer	67829000004-6631P	< 2

### SECTION 4. FIRST AID MEASURES

#### First aid procedures

- 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. If symptoms persist, call a physician.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Flammable properties

- Flash point : 91.4 °F (33.0 °C)  
Propylene glycol monomethyl ether

#### 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 fighting : As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).



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## 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.

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## SECTION 7. HANDLING AND STORAGE

### Handling

- Handling : Do not breathe vapours or spray mist.  
Do not get on skin or clothing.  
For personal protection see section 8.  
Use only in area provided with appropriate exhaust ventilation.

- Advice on protection against  
fire and explosion : Keep away from heat and sources of ignition.  
Take measures to prevent the build up of electrostatic charge.

### Storage

- Further information on  
storage conditions : Keep container tightly closed in a dry and well-ventilated  
place.  
May liberate combustible solvent vapors.  
Store at appropriate temperature. See label for details.

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

#### Components with workplace control parameters

Components	CAS-No.	Control parameters	Basis
1-Methoxy-2-propanol	107-98-2	TWA: 100 ppm	ACGIH
		STEL: 150 ppm	
		TWA: 100 ppm (360 mg/m <sup>3</sup> )	OSHA P0
		STEL: 150 ppm (540 mg/m <sup>3</sup> )	
		TWA: 100 ppm (360 mg/m <sup>3</sup> )	NIOSH REL
		ST: 150 ppm (540 mg/m <sup>3</sup> )	
1-Methoxy-2-propanol acetate	108-65-6	TWA: 50 ppm	US WEEL



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### 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.  
Respirator with filter for organic vapour  
Use NIOSH approved respiratory protection.

Hygiene measures : Observe the usual precautions when handling chemicals.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form : liquid  
Color : colourless to brownish  
Odor : Characteristic odor.

### Safety data

Flash point : 91.4 °F (33.0 °C)  
Propylene glycol monomethyl ether  
Vapour pressure : ca. 8.5 Torr  
Density : 0.95 g/cm<sup>3</sup>  
Water solubility : The solvent is partially water soluble but the product forms two layers.  
VOC : 932 g/l (Calculated value)  
Loss on drying : <= 98 %



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## 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 : Thermal decomposition may generate carbon dioxide and carbon monoxide, oxides of sulfur and nitrogen, and hydrogen fluoride.
- Hazardous reactions : Hazardous polymerisation does not occur.
- Chemical stability : Stable under normal conditions.

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## SECTION 11. TOXICOLOGICAL INFORMATION

Data for AZ LExp.KDB087F 42

- 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.



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**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

**Data for ETHYL (S) LACTATE (687-47-8)**

Acute oral toxicity : LD50 Oral: 2,500 mg/kg  
Species: mouse  
Source : HSDB

Acute inhalation toxicity : LC50: > 5.4 mg/l  
> 5400 mg/m<sup>3</sup>  
Exposure time: 8 h  
Species: rat

Acute dermal toxicity : LD50 Dermal: > 5,000 mg/kg  
Species: rabbit  
Source : HSDB

Skin irritation : Species: guinea pig  
Result: Irritating to skin.  
Method: Intradermal injection.  
Source : HSDB



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Eye irritation : Species: rabbit  
Result: Severe eye irritation  
Classification: Risk of serious damage to eyes.  
Source : Supplier MSDS

Repeated dose toxicity : Species: Rats  
Application Route: Inhalation  
Exposure time: (28 d)  
Number of exposures: Daily  
NOEL: 0.6 mg/l

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## 12. ECOLOGICAL INFORMATION

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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 (rainbow trout)
- : 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.

**Data for ETHYL (S) LACTATE (687-47-8)**

**Ecotoxicity effects**

- Toxicity to fish : LC50: 320 mg/l Exposure time: 48 h  
Species: Fish  
Source : Supplier MSDS
- Toxicity to daphnia and other aquatic invertebrates. : EC50: 683 mg/l  
Exposure time: 48 h  
Species: Daphnia magna  
Source : Supplier MSDS



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Toxicity to algae : EC50: 2,200 mg/l  
Species: Selenastrum sp.  
Source : Supplier MSDS

**Elimination information (persistence and degradability)**

Bioaccumulation : Bioaccumulation is unlikely.

Biodegradability : Readily biodegradable, according to appropriate OECD test.  
Source : Supplier MSDS

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**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 local recyclers for disposal.

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

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**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



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**IATA**

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

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**SECTION 15. REGULATORY INFORMATION**

**Notification status**

**US.TSCA** : One or more of the components of this product is not listed on the Toxic Substances Control Act (TSCA ) Inventory. The product is thus sold under the restriction that it is only for use in research and development. This product must be used under the supervision of a technically qualified individual capable of understanding its potential hazards.

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

**WHMIS Classification** : B2: Flammable liquid

**CERCLA Reportable Quantity** :

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



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### Carcinogenicity

<b>IARC</b>	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.
<b>OSHA</b>	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.
<b>NTP</b>	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.
<b>ACGIH</b>	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 SOCM Intermediate or Final Volatile Organic Compounds (VOC) - 40 CFR part 60.489**

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



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**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**

<b>Massachusetts Right To Know Components</b>	: 1-Methoxy-2-propanol	107-98-2
	Ethyl lactate	97-64-3
<b>Pennsylvania Right To Know Components</b>	: 1-Methoxy-2-propanol	107-98-2
	1-Methoxy-2-propanol acetate	108-65-6
	Ethyl lactate	97-64-3
<b>New Jersey Right To Know Components</b>	: 1-Methoxy-2-propanol	107-98-2
	1-Methoxy-2-propanol acetate	108-65-6
	Ethyl lactate	97-64-3
	Modified methacrylate polymer	6782900004-6631P

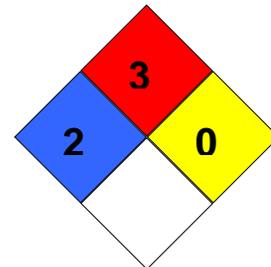
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**SECTION 16. OTHER INFORMATION**

**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





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**GHS-Labeling**

Symbol(s)



Signal word

: Warning

Hazard statements

: Flammable liquid and vapour.  
Causes mild skin irritation.  
Causes eye irritation.  
May cause 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.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/ protective 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.  
Call a POISON CENTER or doctor/ physician if you feel unwell.  
If skin irritation occurs: Get medical advice/ attention.  
If eye irritation persists: 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 container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
**Disposal:**  
Dispose of contents/ container to an approved waste disposal plant.



## SAFETY DATA SHEET

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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.

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