

# MATERIAL SAFETY DATA SHEET

TRADE NAME: BIO-SOLV

Part Number Pint = 35-332; Quart = 35-333; HG – 35-334; Gallon - 35-335; 5 gallon – 35-336  
15 gallon – 35-337; 30 gallon – 35-338; 55 gal – 35-339

## SECTION 1

### MANUFACTURER'S NAME

Phoenix Resins Inc. / MAS Products

### EMERGENCY TELEPHONE NO.

800-424-9300 (CHEMTREC)

### ADDRESS

2615 River Road #3A  
Cinnaminson, NJ 08077

### CHEMICAL NAME

Ethyl Hydroxy Propionate / proprietary co-solvent

### COMMON NAME

Ethyl Lactate Blend

### DOT CLASSIFICATION

Combustible Liquid

### FORMULA

Blend

### CHEMICAL OR COMMON NAME

Ethyl lactate

### PERCENT

10-90

### CAS NO.

97-64-3

### APPLICABLE PEL-OSHA

None established

### EXPOSURE LIMITS TLV-ACGIH

None established

## SECTION 2 HAZARDOUS INGREDIENTS

### CHEMICAL OR COMMON NAME

Proprietary co-solvent

### PERCENT

10-90

### CAS NO.

Proprietary

### APPLICABLE PEL-OSHA

None established

### EXPOSURE LIMITS TLV-ACGIH

None established

Inhibitor

<0.01

Proprietary

10 mg/m<sup>3</sup>

TWA 10 mg/m<sup>3</sup>

## CARCINOGENIC INGREDIENTS

### CHEMICAL OR COMMON NAME

None identified

### %

-

### REFERENCE IARC

-

### SOURCE NTP

-

### OSHA

-

### OTHER

-

## SECTION 3 HEALTH HAZARD DATA

### ACUTE HEALTH EFFECTS

Eyes Irritant.  
Skin Contact Not an irritant.  
Ingestion May cause irritation of the digestive tract.  
Inhalation Prolonged exposure may cause irritation of mucous membranes.

### CHRONIC HEALTH EFFECTS

None known, not listed as a carcinogen.

### ROUTES OF ENTRY

Most common, skin and inhalation.

### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Mist may cause eye/respiratory irritation with coughing.

## SECTION 4 FIRST AID MEASURES

<b>EYES</b>	Immediately flush with water for at least 15 minutes. See a medical doctor immediately.
<b>SKIN</b>	Wash affected area with soap and water.
<b>INHALATION</b>	Remove person to fresh air. If discomfort occurs and persists, obtain medical attention.
<b>INGESTION</b>	See a medical doctor immediately.

## SECTION 5 FIRE FIGHTING MEASURES

<b>EXTINGUISHING MEDIA</b>	Water, water fog, carbon dioxide (CO <sub>2</sub> ), dry chemical.
<b>SPECIAL FIREFIGHTING PROCEDURES</b>	Wear a self-contained breathing apparatus.
<b>DEGREE OF FIRE AND EXPLOSION HAZARD</b>	Moderate. Rags soaked with any solvent can present a fire hazard and should be stored in UL listed or Factory Mutual approved, covered containers. Forms peroxides of unknown stability if material becomes uninhibited. Not an explosion hazard when inhibited.
<b>HAZARDOUS DECOMPOSITION PROCEDURES</b>	None required when completely combusted, decomposes to water and CO <sub>2</sub> . However, during a fire, incomplete combustion can result in the production of CO.

## SECTION 6 ACCIDENTAL RELEASE / SPILL MEASURES

<b>PROCEDURE FOR RELEASE OR SPILL</b>	Cover with large quantity of absorbent material (e.g. kitty litter) and collect in drums for disposal. Clean contaminated area with soap and water.
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SECTION 7 CHEMICAL AND PHYSICAL DATA			
MELTING POINT (°C)	Not applicable	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	0.988
BOILING POINT	300° F	PERCENT VOLATILE BY VOLUME (%)	100
VAPOR PRESSURE (mmHg)	0.54 @ 68°F	EVAPORATION RATE (butyl acetate=1)	0.14
VAPOR DENSITY (AIR=1)	4.6	pH OF WATER DISPERSION	4.8, 10% solution
SOLUBILITY	60%, in water	APPEARANCE AND ODOR	Clear colorless liquid, pungent ester odor.
FLASH POINT	149° F, ASTM D93	FLAMMABLE LIMITS	<b>Lel</b> No data <b>Uel</b> No data
EXTINGUISHING MEDIA - Water, foam, CO <sub>2</sub>		ODOR THRESHOLD	No data
SPECIAL FIRE FIGHTING PROCEDURES		BULK DENSITY (G/ML)	
None required		PARTITION COEFFICIENT	
INCOMPATIBILITY (materials to avoid) Strong oxidizing agents, acids and alkalis.		(n-octanol/water)	No data
HAZARDOUS DECOMPOSITION PRODUCTS		AUTOIGNITION TEMPERATURE	No data
Incomplete combustion can produce CO.		EXPLOSIVE PROPERTIES	Not applicable
		OXIDIZING PROPERTIES	Not applicable
SECTION 8 STABILITY AND REACTIVITY DATA			
STABILITY		Stable. Forms peroxides if material becomes uninhibited.	
HAZARDOUS POLYMERIZATION		None known	
CONDITIONS TO AVOID		None known	
MATERIALS TO AVOID		Strong oxidizing agents, acids and alkalis.	
MAJOR CONTAMINANTS THAT CONTRIBUTE TO INSTABILITY		None known	
INCOMPATIBILITY		None known	
HAZARDOUS DECOMPOSITION PRODUCTS		Carbon monoxide	
SENSITIVITY TO MECHANICAL IMPACT		None known	
SENSITIVITY TO STATIC DISCHARGE		None known	
SECTION 9 TOXICOLOGICAL INFORMATION			
EYE CONTACT		Irritant	
SKIN CONTACT		LD 50 (rat/24hrs.) >1000mg/kg (highest dose tested)	
SKIN ABSORPTION		No data available	
INHALATION		LC 50 (rat/6 hrs.) > 1000 ppm (highest concentration tested)	
INGESTION		LD 50 > 4200 mg/kg (rat) (RTECS 1985-6)	
ACUTE EFFECTS FROM OVEREXPOSURE		May cause irritation of the eyes.	
CHRONIC EFFECTS FROM OVEREXPOSURE		None identified	
<i>(effects considered include: sensitivities, carcinogenicity, teratogenicity, mutagenicity, synergistic products, and any medical conditions generally recognized as being aggravated by exposure)</i>			
SECTION 10 ECOLOGICAL INFORMATION			
ENVIRONMENTAL FATE		100% Biodegradable	
ENVIRONMENTAL EFFECTS		No adverse effects known or suspected. Not listed toxic chemical under SARA Title III 302, 304 or 313.	
SECTION 11 HANDLING AND STORAGE			
HANDLING		Keep container tightly closed. Minimize exposure to air. Store in a cool, dry, well-ventilated, liquid storage area.	
VENTILATION		Use adequate general or local exhaust ventilation to keep vapor and mist levels as low as possible.	
STORAGE		Store in a cool dry area, away from oxidizers and acids.	
SECTION 12 EXPOSURE CONTROL / PERSONAL PROTECTION			
RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT		None required where adequate ventilation conditions exist.	
RESPIRATORY		None required	
VENTILATION		Recommended	
Local Exhaust		In most cases adequate ventilation can be achieved by use of an industrial floor or pedestal fan, combined with sizable inlet and outlet openings to the workspace, such as doors and/or windows.	
Mechanical (general)		Use chemical goggles.	
EYE PROTECTION		Use impervious gloves to prevent skin contact.	
GLOVES		Aprons recommended. If clothing becomes contaminated, remove and launder before reuse.	
SPECIAL CLOTHING AND EQUIPMENT		None identified	
OTHER PROTECTIVE EQUIPMENT		Industrial safety shoes are recommended in all industrial settings.	
FOOT PROTECTION		None identified	
OTHER ENGINEERING CONTROLS		Do not smoke in areas of storage or use. Avoid all contact with skin and eyes.	
WORK PRACTICES		Minimize eye and skin contact by using appropriate protective equipment. Use local or general room ventilation to control vapors or mist that may be generated into the work environment.	
CONTROL MEASURES			

**SECTION 13 SPECIAL PRECAUTIONS DATA**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

Avoid all contact with eyes or skin. Wear the appropriate protective equipment. Protect containers from physical damage.

**MAINTENANCE PERSONNEL**

Wash down vessels. Check the oxygen and combustible vapor content of the vessel atmosphere. Use the appropriate protective equipment.

**SECTION 14 DISPOSAL PROCEDURES**

**WASTE DISPOSAL METHOD**

Take up with sand or other non-combustible absorbent material and place into container for later disposal. Flush area with water. Dispose in accordance with all applicable Federal, State, and local environmental regulations. Spent product may be offered for fuel blending incineration.

**SECTION 15 TRANSPORT INFORMATION**

**DOT PROPER SHIPPING NAME**

BIO SOLV (under 119 gallons)

**IATA**

Non-regulated

**IMDG**

Non-regulated

**DOT CLASSIFICATION**

Combustible liquid

**DOT LABELS**

None required, under 119 gallons

**DOT MARKING**

Not applicable

**DOT PLACARD**

Bulk: Combustible Liquid, 1993

**IDENTIFICATION NUMBER**

NA 1993

**PACKAGING GROUP**

PG III

**HAZARDOUS SUBSTANCE/RQ**

None

**49 STCC NUMBER**

Not applicable

**PRECAUTIONS TO BE TAKEN IN TRANSPORTATION**

None needed

**OTHER SHIPPING INFORMATION**

None

**SECTION 16 REGULATORY INFORMATION**

**OSHA EXPOSURE LIMITS SUBSTANCE(S)**

Ethyl Lactate, Proprietary co-solvent

**OSHA PEL-TWA**

None established

**STEL**

None established

**CEILING**

None established

**SKIN DESIGNATION**

None established

**ACGIH TLV-TWA**

None established

**STEL**

None established

**CEILING**

None established

**SKIN DESIGNATION**

None established

**TARGET ORGAN EFFECTS**

Eye

**CARCINOGENIC POTENTIAL**

None

**REGULATED BY OSHA**

No

**LISTED ON NTP REPORT**

No

**IARC GROUP 1, 2A, 2B**

No

**US EPA REQUIREMENTS RELEASE REPORTING CERCLA**

**(40 CFR 302)**

**LISTED SUBSTANCE(S)**

Not listed

**RQ**

Not applicable

**Category**

Not applicable

**RCRA waste number**

Not applicable

**UNLISTED SUBSTANCE(S)**

Ethyl Lactate, Proprietary co-solvent

**RQ**

None

**Characteristic**

Not applicable

**RCRA waste number**

Not applicable

**SARA TITLE III SEC 313 (40 CFR 372)**

**Listed toxic chemical**

Not listed

**INVENTORY REPORTING SARA TITLE III SEC 311/312**

**(40 CFR 370)**

**Substance(s)**

Not listed

**Hazard category**

Not applicable

**Planning threshold**

Not applicable

**Emergency planning**

Not applicable

**SARA TITLE III SEC 302-303 (40 CFR 355)**

**LISTED SUBSTANCE(S)**

Not applicable

**RQ**

Not applicable

**PLANNING THRESHOLD**

Not applicable

**US TSCA STATUS**

Listed

**CANADA INGREDIENT DISCLOSURE LIST SUBSTANCE(S)**

**CONTROLLED PRODUCT**

Not listed

**HAZARD SYMBOLS**

**CLASS AND DIVISION**

**PRODUCT IDENTIFICATION NO.**

**DOMESTIC SUBSTANCE LIST**

Listed

**CEPA PRIORITY LIST**

Not listed

SECTION 16 REGULATORY INFORMATION (CONTINUED)			
CARCINOGENICITY ACGIH APPENDIX A A1 - CONFIRMED HUMAN A1 - SUSPECTED HUMAN	Not listed in either OSHA, ACGIH, NTP, or IARC Not listed Not listed Not listed		
IARC GROUP 1 OR 2	No		
LABEL LANGUAGE (US/CANADA) HEALTH PHYSICAL HANDLING AND STORAGE	Not applicable Keep container tightly closed. Minimize exposure to air. Store in a cool, dry, well-ventilated liquid storage area.		
FIRST AID	In case of contact, immediately flush eyes with water for at least 15 minutes. If irritation persists, obtain medical attention. Flush skin with water.		
STATE REGULATIONS			
SECTION 17 ADDITIONAL INFORMATION			
OSHA permissible exposure limit or ACGIH threshold limit value has not been established.			
SECTION 18 HMIS LABEL			
HEALTH 1	FLAMMABILITY 2	REACTIVITY 0	PERSONAL PROTECTION B

## DEPARTMENT OF TRANSPORTATION

### Hazardous Materials Regulations, 49 CFR

#### Non-hazardous

**Proper Shipping Name:** Ethyl Hydroxy Propionate /  
 proprietary co-solvent  
**Hazard Class:** Combustible liquid  
**Packaging Group:** III  
**Reportable Quantity:** None  
**Label Required (Drums):** None  
**Placard Required (Bulk):** Combustible liquid, 1993  
**Max. Quantity Pass. Aircraft:** 60L/container  
**Max. Quantity Cargo Aircraft:** 220L/container  
**Stowage on Vessels:** Above or Below Deck

*The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.*