



**PRODUCT INFORMATION BULLETIN**

**BIO SOLV**

Regulatory Agency Information  
OSHA-DOT

PREPARATION/REVISION DATE  
12/31/2013

**Product Information Bulletin  
MATERIAL SAFETY DATA SHEET**

TRADE NAME: **BIO SOLV**

**ETHYL LACTATE BLEND**

**SECTION 1**

<b>MANUFACTURER'S NAME</b> BIO BRANDS			<b>EMERGENCY TELEPHONE NO.</b> 800-424-9300 (CHEMTREC)		
<b>ADDRESS</b> 602 Union Landing Road Building 3 Cinnaminson, NJ 08077					
<b>CHEMICAL NAME</b> Ethyl Hydroxy Propionate / proprietary co-solvent			<b>COMMON NAME</b> Ethyl Lactate Blend		
<b>DOT CLASSIFICATION</b> Combustible Liquid			<b>FORMULA</b> Blend		
<b>CHEMICAL OR COMMON NAME</b> Ethyl lactate	<b>PERCENT</b> 10-90	<b>CAS NO.</b> 97-64-3	<b>APPLICABLE PEL-OSHA</b> None established	<b>EXPOSURE LIMITS TLV-ACGIH</b> None established	

**SECTION 2 HAZARDOUS INGREDIENTS**

<b>CHEMICAL OR COMMON NAME</b> Proprietary co-solvent Inhibitor	<b>PERCENT</b> 10-90 <0.01	<b>CAS NO.</b> Proprietary Proprietary	<b>APPLICABLE PEL-OSHA</b> None established 10 mg/m <sup>3</sup>	<b>EXPOSURE LIMITS TLV-ACGIH</b> None established TWA 10 mg/m <sup>3</sup>	
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**CARCINOGENIC INGREDIENTS**

<b>CHEMICAL OR COMMON NAME</b>	<b>%</b>	<b>REFERENCE IARC</b>	<b>SOURCE NTP</b>	<b>OSHA</b>	<b>OTHER</b>
None identified	-	-	-	-	-

**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	136° F, ASTM D93	FLAMMABLE LIMITS	<table border="1"> <thead> <tr> <th></th> <th>LeI</th> <th>Uel</th> </tr> </thead> <tbody> <tr> <td>@ 212 F</td> <td>No data</td> <td>No data</td> </tr> </tbody> </table>		LeI	Uel	@ 212 F	No data	No data
	LeI	Uel							
@ 212 F	No data	No data							
EXTINGUISHING MEDIA - Water, foam, CO <sub>2</sub>		ODOR THRESHOLD	No data						
SPECIAL FIRE FIGHTING PROCEDURES		BULK DENSITY (G/ML)							
None required		VOC CONTENT	100% (988g/l = 8.24lb/gal)						
INCOMPATIBILITY (materials to avoid)		PARTITION COEFFICIENT	No data						
Strong oxidizing agents, acids and alkalis.		AUTOIGNITION TEMPERATURE	No data						
HAZARDOUS DECOMPOSITION PRODUCTS		EXPLOSIVE PROPERTIES	Not applicable						
Incomplete combustion can produce CO.		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 (effects considered include: sensitivities, carcinogenicity, teratogenicity, mutagenicity, synergistic products, and any medical conditions generally recognized as being aggravated by exposure)		None identified							
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 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**

Considered Flammable must be shipped with hazardous stickers

**IMDG**

Considered Flammable must be shipped with hazardous stickers

**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**

Must be listed as flammable when shipping by Aircraft or Marine vessel

**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, 2D**

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**

Class B, Division 2

**PRODUCT IDENTIFICATION NO.****DOMESTIC SUBSTANCE LIST**

Listed

**CEPA PRIORITY LIST**

Not listed

SECTION 16 REGULATORY INFORMATION (CONTINUED)			
CARCINOGENICITY	Not listed in either OSHA, ACGIH, NTP, or IARC		
ACGIH APPENDIX A	Not listed		
A1 - CONFIRMED HUMAN	Not listed		
A1 - SUSPECTED HUMAN	Not listed		
IARC GROUP 1 OR 2	No		
LABEL LANGUAGE (US/CANADA) HEALTH	Not applicable		
PHYSICAL HANDLING AND STORAGE	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	FLAMMABILITY	REACTIVITY	PERSONAL PROTECTION
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## DEPARTMENT OF TRANSPORTATION

Hazardous Materials Regulations, 49 CFR

Non-hazardous for ground transportation

**Proper Shipping Name:** BIO SOLV (under 119 gallons)  
**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 must be labeled flammable/ hazardous  
**Max. Quantity Cargo Aircraft:** 220L/container must be labeled flammable/ hazardous  
**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*

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