

PRODUCT INFORMATION BULLETIN

BIO-SOLV

Regulatory Agency Information
OSHA-DOT

PREPARATION/REVISION DATE
11/23/10

Product Information Bulletin
MATERIAL SAFETY DATA SHEET

TRADE NAME: BIO-SOLV

ETHYL LACTATE BLEND
SECTION 1

MANUFACTURER'S NAME : MAS PRODUCTS	EMERGENCY TELEPHONE NO. 800-424-9300 (CHEMTREC)
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ADDRESS 2615 RIVER ROAD #3A CINNAMINSON, NJ 08077	
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CHEMICAL NAME Ethyl Hydroxy Propionate / proprietary co-solvent	COMMON NAME Ethyl Lactate Blend
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DOT CLASSIFICATION Combustible Liquid	FORMULA Blend
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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
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SECTION 2 HAZARDOUS INGREDIENTS

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

CHEMICAL OR COMMON NAME	%	REFERENCE IARC	SOURCE NTP	OSHA	OTHER
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

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

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA	Water, water fog, carbon dioxide (CO ₂), dry chemical.
SPECIAL FIRE FIGHTING PROCEDURES	Wear a self-contained breathing apparatus.
DEGREE OF FIRE AND EXPLOSION HAZARD	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.
HAZARDOUS DECOMPOSITION PROCEDURES	None required when completely combusted, decomposes to water and CO ₂ . However, during a fire, incomplete combustion can result in the production of CO.

SECTION 6 ACCIDENTAL RELEASE / SPILL MEASURES

PROCEDURE FOR RELEASE OR SPILL	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 ₂ 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	<table border="1"> <thead> <tr> <th>LeI</th> <th>UeI</th> </tr> </thead> <tbody> <tr> <td>@ 212 F</td> <td>No data</td> </tr> <tr> <td></td> <td>No data</td> </tr> </tbody> </table>	LeI	UeI	@ 212 F	No data		No data
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@ 212 F	No data								
	No data								
EXTINGUISHING MEDIA - Water, foam, CO ₂		ODOR THRESHOLD	No data						
SPECIAL FIRE FIGHTING PROCEDURES		BULK DENSITY (G/ML)							
None required		PARTITION COEFFICIENT							
INCOMPATIBILITY (materials to avoid)		(n-octanol/water)	No data						
Strong oxidizing agents, acids and alkalies.		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 alkalies.							
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							
(effects considered include: sensitivities, carcinogenicity, teratogenicity, mutagenicity, synergistic products, and any medical conditions generally recognized as being aggravated by exposure)									
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	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, 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

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 OVER 119 GALS): 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.