



Graffiti Remover

Ethyl Lactate/Methyl Soyate

BioBased Solvent

Corn & Soybean Derived

Patented blend of vegetable esters ideal for formulating parts cleaners, industrial cleaners, hand cleaners and other institutional and janitorial products. Made with soybean and corn derived ingredients.

This VertecBio Gold formula contains a higher concentration of Methyl Soyate.

Therefore, it has a higher flash point and a reduced Ethyl Lactate odor.

- Ideal for Parts Washer & Parts Cleaning Applications
- No Petroleum Ingredients
- Excellent Solvency for Paints, Coatings and Inks
- Low Vapor Pressure and High Loading Capacity
- 100% Biodegradable to Carbon Dioxide and Water
- Excellent Degreaser Heavy Lubes/Oils
- Safe, Non-Toxic, Non-Carcinogenic
- Flash Point over 150 °F
- No Environmentally Hazardous Ingredients
- Non-Hazardous under RCRA
- 100% Biobased content, made from Renewable Resources
- No ODC's---No Ozone Depleting Chemicals
- No HAP's---No Hazardous Air Pollutants
- No Global Warming Compounds
- EPA Approved SNAP Solvent
- Non SARA 313 Reportable
- Rinses with Water



Recognized As Environmentally
Preferable Chemistry

| <u>TECHNICAL DATA</u> | |
|-----------------------------|---------------------------|
| Flash Point... | 155 F ASTM D93 closed cup |
| Vapor Pressure..... | 0.78 mmHg @ 68 F |
| pH of Water Dispersion..... | 4.4 |
| Specific Gravity..... | 0.9 |
| Evaporation Rate..... | <.1 |
| Vapor Density..... | >4 |
| Boiling Point..... | 298 F |
| CAS No: | 97-64-3 & |
| | 67784-80-9 or 67762-38-3 |

U.S Patent No. 6,096,699
U.S Patent No. 6,191,087



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PRODUCT INFORMATION BULLETIN

VERTECBIO GOLD #2

Regulatory Agency Information
 OSHA-DOT

PREPARATION/REVISION DATE
 LMP 05/06/04

PRODUCT INFORMATION BULLETIN
MATERIAL SAFETY DATA SHEET

TRADE NAME: VERTECBIO GOLD #2 ETHYL LACTATE BLEND

SECTION 1

| | | | | | |
|--|-------------------------|--|---|--|--|
| MANUFACTURER'S NAME VERTEC BIOSOLVENTS, INC. | | | EMERGENCY TELEPHONE NO. 800-424-9300 (CHEMTREC) | | |
| ADDRESS 1441 Branding Lane, Suite 100 Downers Grove, Illinois 60515 USA | | | | | |
| CHEMICAL NAME Ethyl Hydroxy Propionate / Fatty Acid Methyl Esters | | | COMMON NAME Ethyl Lactate / Methyl Soyate | | |
| DOT CLASSIFICATION Combustible Liquid | | | FORMULA Blend | | |
| CHEMICAL OR COMMON NAME Methyl Soyate | PERCENT 10-90 | CAS NO. 67784-80-9 & 67762-38-3 | APPLICABLE PEL-OSHA None established | EXPOSURE LIMITS TLV-ACGIH None established | |
| Ethyl Lactate | 10-90 | 97-64-3 | None established | None established | |

SECTION 2 HAZARDOUS INGREDIENTS

| CHEMICAL OR COMMON NAME | PERCENT | CAS NO. | APPLICABLE PEL-OSHA | EXPOSURE LIMITS TLV-ACGIH |
|-------------------------|---------|---------|---------------------|---------------------------|
| None | | | | |

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 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 | Induce vomiting. See a medical doctor immediately. |

SECTION 5 FIRE FIGHTING MEASURES

| | |
|--|--|
| EXTINGUISHING MEDIA | Water fog, carbon dioxide (CO ₂), dry chemical. |
| SPECIAL FIREFIGHTING 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. Improperly stored rags, under certain conditions can lead to spontaneous combustion. Not an explosion hazard. |
| 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. |
|---------------------------------------|---|

| SECTION 7 CHEMICAL AND PHYSICAL DATA | | | | | | | | | |
|---|---|---------------------------------------|---|-----|-----|---------|---------|--|---------|
| MELTING POINT (°C) | Not applicable | SPECIFIC GRAVITY (H ₂ O=1) | 0.9 | | | | | | |
| BOILING POINT | 298° F | PERCENT VOLATILE BY VOLUME (%) | 33 | | | | | | |
| VAPOR PRESSURE (mmHg) | 0.78 @ 68°F | EVAPORATION RATE (butyl acetate=1) | <1 | | | | | | |
| VAPOR DENSITY (AIR=1) | >4 | pH OF WATER DISPERSION | 4.4, 10% solution | | | | | | |
| SOLUBILITY | 30%, in water | APPEARANCE AND ODOR | Clear, colorless to light yellow liquid with a mild odor. | | | | | | |
| FLASH POINT (method used) | 155° F, ASTM D93 | FLAMMABLE LIMITS | <table border="1"> <thead> <tr> <th>LeI</th> <th>Uel</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 | Uel | @ 212 F | No data | | No data |
| LeI | Uel | | | | | | | | |
| @ 212 F | No data | | | | | | | | |
| | No data | | | | | | | | |
| EXTINGUISHING MEDIA – Water fog, foam, CO ₂ | | ODOR THRESHOLD | No data | | | | | | |
| SPECIAL FIRE FIGHTING PROCEDURES | | BULK DENSITY (G/ML) | | | | | | | |
| None required | | VOC CONTENT | 37.80% (348g/l) | | | | | | |
| INCOMPATIBILITY (materials to avoid) | | PARTITION COEFFICIENT | | | | | | | |
| Strong oxidizing agents. | | n-octanol/water | Not applicable | | | | | | |
| 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 | | | | | | | | |
| HAZARDOUS POLYMERIZATION | None known | | | | | | | | |
| CONDITIONS TO AVOID | None known | | | | | | | | |
| MATERIALS TO AVOID | Strong oxidizing agents. | | | | | | | | |
| CONTAMINANTS THAT CONTRIBUTE TO INSTABILITY | None known | | | | | | | | |
| INCOMPATIBILITY | None known | | | | | | | | |
| HAZARDOUS DECOMPOSITION PRODUCTS | None known | | | | | | | | |
| 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.) >2000mg/kg | | | | | | | | |
| SKIN ABSORPTION | No data available | | | | | | | | |
| INHALATION | LC 50 (rat/4 hrs.) > 5400 mg/m ³ | | | | | | | | |
| INGESTION | LD 50 > 4090 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. 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**

VertecBio Gold #2 (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

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, Methyl Soyate

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, Methyl Soyate

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 listed

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 | Not applicable | | |
| PHYSICAL HANDLING AND STORAGE | Keep container tightly closed. 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: VertecBio Gold #2 (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
Max. Quantity Cargo Aircraft: 220L/container
Stowage on Vessels: Above or Below Deck

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