



# Material Safety Data Sheet

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## 1. PRODUCT AND COMPANY IDENTIFICATION

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### MICROPOSIT(TM) EC Solvent 11

Revision date: 08/15/2002

**Supplier** Shiple Company  
455 Forest Street  
Marlborough, MA 01752

**For non-emergency information contact:** 508-481-7950

### Emergency telephone number

Chemtrec 800-424-9300  
Shiple emergency 508-481-7950

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

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Component	CAS-No.	W/W
Ethyl lactate	97-64-3	100.0%

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## 3. HAZARDS IDENTIFICATION

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### Emergency Overview

### Appearance

Form liquid  
Color clear  
Odor sweet

Hazard Summary
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<b>WARNING!</b>
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Combustible liquid and vapor. Causes irritation to eyes, nose, and respiratory tract. Prolonged, repeated contact, inhalation, ingestion, or absorption through the skin, may cause toxic effects to internal organ systems.
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### Potential Health Effects

**Primary Routes of Entry:** Inhalation, ingestion, eye and skin contact, absorption.

**Eyes:** May cause pain, transient irritation and superficial corneal effects.

**Skin:** Material may cause irritation.

Prolonged or repeated exposure may have the following effects:

- central nervous system depression

- drowsiness
- defatting of skin leading to irritation and dermatitis

**Ingestion:** Swallowing may have the following effects:

- irritation of mouth, throat and digestive tract
- Repeated doses may have the following effects:
- central nervous system depression
  - drowsiness

**Inhalation:** Inhalation may have the following effects:

- irritation of nose, throat and respiratory tract
- Higher concentrations may have the following effects:
- systemic effects similar to those resulting from ingestion

**Target Organs:** - Eye

- Respiratory System
- Skin
- nervous system

### **Carcinogenicity**

Not considered carcinogenic by NTP, IARC, and OSHA

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## **4. FIRST AID MEASURES**

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**Inhalation:** Remove from exposure. If there is difficulty in breathing, give oxygen. Seek medical attention if symptoms persist.

**Skin contact:** Wash out eye with plenty of water. Continue washing for at least 15 minutes. Obtain medical attention if blistering occurs or redness persists.

**Eye contact:** Immediately flush the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

**Ingestion:** Wash out mouth with water. Have victim drink 1-3 glasses of water to dilute stomach contents. Induce vomiting. Obtain medical attention immediately. Never administer anything by mouth if a victim is losing consciousness, is unconscious or is convulsing.

### **Notes to physician**

Treat symptomatically.

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## **5. FIRE-FIGHTING MEASURES**

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<b>Flash point</b>	48 °C (119.8 °F )
<b>Lower explosion limit</b>	1.6 %(V)
<b>Upper explosion limit</b>	No data available

**Suitable extinguishing media:** Use water spray, foam, dry chemical or carbon dioxide. Keep containers and surroundings cool with water spray.

**Specific hazards during fire fighting:** This product may give rise to hazardous vapors in a fire. Vapors can travel a considerable distance to a source of ignition and result in flashback.

**Special protective equipment for fire-fighters:** Wear full protective clothing and self-contained breathing apparatus.

**Further information:** Pressure may build up in closed containers with possible liberation of combustible vapors.

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## 6. ACCIDENTAL RELEASE MEASURES

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### Personal precautions

Wear appropriate protective clothing.  
Wear respiratory protection.  
Eliminate all sources of ignition.

### Environmental precautions

Prevent the material from entering drains or water courses.  
Do not discharge directly to a water source.  
Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

### Methods for cleaning up

Contain and absorb using earth, sand or other inert material.  
Transfer into suitable containers for recovery or disposal.  
Finally flush area with plenty of water.

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## 7. HANDLING AND STORAGE

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### Handling

Use local exhaust ventilation. Avoid contact with eyes, skin and clothing. Keep container tightly closed when not in use.

**Further information on storage conditions:** Keep away from heat, sparks, flame, and other sources of ignition. Practice good personal hygiene to prevent accidental exposure.

### Storage

**Storage conditions:** Store in original containers. Store away from sources of heat or ignition. Storage area should be: - cool - dry - well ventilated - out of direct sunlight

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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### Exposure limit values

Component	Regulation	Type of listing	Value
ethyl lactate; ethyl DL-lactate	Rohm and Haas	TWA	5 ppm
	Rohm and Haas	STEL	15 ppm

**Eye protection:** Chemical goggles.

**Hand protection:** Butyl rubber gloves. Other chemical resistant gloves may be recommended by your safety professional.

**Skin and body protection:** Normal work wear.

**Respiratory protection:** Respiratory protection if there is a risk of exposure to high vapor concentrations. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

**Engineering measures:** Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Appearance

<b>Form</b>	liquid
<b>Color</b>	clear
<b>Odor</b>	sweet
<b>pH</b>	ca.7
<b>Boiling point/range</b>	153 °C (308.8 °F)
<b>Flash point</b>	48 °C (119.8 °F)
<b>Lower explosion limit</b>	1.6 %(V)
<b>Upper explosion limit</b>	No data available

Component: **ethyl lactate; ethyl DL-lactate**

<b>Vapor pressure</b>	1.7 mmHg at 20 °C
<b>Relative vapor density</b>	Heavier than air.
<b>Water solubility</b>	completely soluble
<b>Relative density</b>	1.04
<b>Evaporation rate</b>	Slower than ether
<b>VOC's</b>	1,042 g/l

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## 10. STABILITY AND REACTIVITY

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**Hazardous reactions**      Stable under normal conditions.

### Conditions to avoid

- High temperatures - Static discharge

### Materials to avoid

- Oxidizing agents - Bases - acids

### Hazardous decomposition products

- carbon monoxide, - carbon dioxide,

### Polymerization

Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

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*Toxicological information on this product or its components appear in this section when such data is available.*

Component: **ethyl lactate; ethyl DL-lactate**  
**Acute oral toxicity** LD50 rat >2,000 mg/kg

Component: **ethyl lactate; ethyl DL-lactate**  
**Acute inhalation toxicity** LC50 rat >5,400 mg/m<sup>3</sup>

Component: **ethyl lactate; ethyl DL-lactate**  
**Acute dermal toxicity** LD50 rat >5,000 mg/kg

Component: **ethyl lactate; ethyl DL-lactate**  
**Skin irritation** A single application to rabbit skin produced minimal irritation.

Component: **ethyl lactate; ethyl DL-lactate**  
**Eye irritation** Single application to the rabbit eye produced conjunctival irritation.

Component: **ethyl lactate; ethyl DL-lactate**  
**Toxicity to reproduction**  
Studies in laboratory animals have shown no teratogenic effects.

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## 12. ECOLOGICAL INFORMATION

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*Ecotoxicological information on this product or its components appear in this section when such data is available.*

### **ethyl lactate; ethyl DL-lactate**

**Ecotoxicity effects**  
**Toxicity to aquatic invertebrates** EC50 Daphnia 48 h 683 mg/l

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## 13. DISPOSAL CONSIDERATIONS

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**Environmental precautions:** Prevent the material from entering drains or water courses.  
Do not discharge directly to a water source.  
Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

### **Disposal**

Dispose of in accordance with all applicable local and national regulations. Incineration is the recommended method of disposal for containers. Under RCRA, it is the responsibility of the product's user to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because the product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

Labels should not be removed from containers until they have been cleaned. Empty containers may contain hazardous residues. Dispose of containers with care.

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## 14. TRANSPORT INFORMATION

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### **DOT**

Not regulated per 49CFR 173.150(f)(2)

### **IMO/IMDG**

<b>Proper shipping name</b>	ETHYL LACTATE
<b>UN-No</b>	UN 1192
<b>Class</b>	3
<b>Packing group</b>	III

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## 15. REGULATORY INFORMATION

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**SARA TITLE III: Section 311/312 Categorizations (40CFR370):** Immediate, delayed, flammability hazard

**SARA TITLE III: Section 313 Information (40CFR372)**

This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

**U.S. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D):**

U.S. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)  
This product does not contain any substances subject to Section 12(b) export notification.

**US. Toxic Substances Control Act (TSCA)**

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

**California (Proposition 65)**

This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.

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## 16. OTHER INFORMATION

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**Hazard Rating**

	<b>Health</b>	<b>Fire</b>	<b>Reactivity</b>
<b>NFPA</b>	2	2	0

**Legend**

ACGIH	American Conference of Governmental Industrial Hygienists
BAC	Butyl acetate
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL	Short Term Exposure Limit (STEL):
TLV	Threshold Limit Value
TWA	Time Weighted Average (TWA):
	Bar denotes a revision from prior MSDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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