



# Fisher Scientific

## Part of Thermo Fisher Scientific Material Safety Data Sheet

Creation Date 13-Oct-2009

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Revision Number 1

### 1. PRODUCT AND COMPANY IDENTIFICATION

|   |   |
|---|---|
| <b>Product Name</b>   | <b>Ethyl acetate</b>  |
| <b>Cat No. :</b>  | <b>E195-1; E195-4; E195N1-19; E195N2-19; E195RS-50; E195RS-115; E195RS-200; E195SK-1; E195SK-4; E195SK4004; E195SK4005; E195SK4006; E195SS-19; E195SS-50; E195SS-115;</b> |
| <b>Synonyms</b>   | Acetic acid ethyl ester   |
| <b>Recommended Use</b>  | Laboratory chemicals  |
| <b>Company</b><br>Fisher Scientific<br>One Reagent Lane<br>Fair Lawn, NJ 07410<br>Tel: (201) 796-7100 | <b>Emergency Telephone Number</b><br>CHEMTREC®, Inside the USA: 800-424-9300<br>CHEMTREC®, Outside the USA: 001-703-527-3887  |

### 2. HAZARDS IDENTIFICATION

#### DANGER

#### Emergency Overview

Highly flammable. Irritating to eyes. Vapors may cause drowsiness and dizziness. Repeated exposure may cause skin dryness or cracking. May cause central nervous system effects. May cause skin and respiratory tract irritation. May be harmful by inhalation, in contact with skin and if swallowed.

**Appearance** Colorless

**Physical State** Liquid

**Odor** sweet

**Target Organs** Skin, Respiratory system, Eyes, Central nervous system (CNS)

#### Potential Health Effects

#### **Acute Effects**

#### **Principle Routes of Exposure**

|                   |  |
|-------------------|--|
| <b>Eyes</b>       | Irritating to eyes.  |
| <b>Skin</b>       | May cause irritation. May be harmful in contact with skin. Repeated exposure may cause skin dryness or cracking.                                       |
| <b>Inhalation</b> | Inhalation may cause central nervous system effects. May cause irritation of respiratory tract. May be harmful if inhaled.                             |
| <b>Ingestion</b>  | May be harmful if swallowed. May cause central nervous system effects. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |

**Chronic Effects**

Repeated exposure may cause skin dryness or cracking; May cause adverse liver effects

**Aggravated Medical Conditions** Preexisting eye disorders. Skin disorders.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component    | CAS-No   | Weight % |
|--------------|----------|----------|
| Ethylacetate | 141-78-6 | >95      |

### 4. FIRST AID MEASURES

|                           |  |
|---------------------------|--|
| <b>Eye Contact</b>        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.   |
| <b>Skin Contact</b>       | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.  |
| <b>Inhalation</b>         | Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur. |
| <b>Ingestion</b>          | Do not induce vomiting. Obtain medical attention.  |
| <b>Notes to Physician</b> | Treat symptomatically  |

### 5. FIRE-FIGHTING MEASURES

|   |   |
|---|---|
| <b>Flash Point</b>                      | -4 °C / 24.8 °F   |
| <b>Method -</b>                         | Closed cup  |
| <b>Autoignition Temperature</b>         | 427 °C / 800.6 °F   |
| <b>Explosion Limits</b>                 |   |
| Upper                                   | 11.5 vol %  |
| Lower                                   | 2.0 vol %   |
| <b>Oxidizing Properties</b>             | Not oxidising   |
| <b>Suitable Extinguishing Media</b>     | CO <sub>2</sub> , dry chemical, dry sand, alcohol-resistant foam. Water spray. Cool closed containers exposed to fire with water spray. |
| <b>Unsuitable Extinguishing Media</b>   | Water may be ineffective, Do not use a solid water stream as it may scatter and spread fire   |
| <b>Hazardous Combustion Products</b>    | No information available.   |
| <b>Sensitivity to Mechanical Impact</b> | No information available  |
| <b>Sensitivity to Static Discharge</b>  | No information available  |

**Specific Hazards Arising from the Chemical**

Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health 1

Flammability 3

Instability 0

Physical hazards N/A

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions**

Avoid contact with the skin and the eyes. Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges. Ensure adequate ventilation.

**Environmental Precautions**

Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

**Methods for Containment and Clean Up**

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Provide adequate ventilation. Take precautionary measures against static discharges.

## 7. HANDLING AND STORAGE

**Handling**

Ensure adequate ventilation. Wear personal protective equipment. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Use only non-sparking tools. Use explosion-proof equipment.

**Storage**

Flammables area. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Keep container tightly closed in a dry and well-ventilated place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Measures** Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

### Exposure Guidelines

| Component    | ACGIH TLV                                   | OSHA PEL   | NIOSH IDLH  |
|--------------|---|--|---|
| Ethylacetate | TWA: 400 ppm                                | (Vacated) TWA: 400 ppm<br>(Vacated) TWA: 1400 mg/m <sup>3</sup><br>TWA: 400 ppm<br>TWA: 1400 mg/m <sup>3</sup> | IDLH: 2000 ppm<br>TWA: 400 ppm<br>TWA: 1400 mg/m <sup>3</sup> |
| Component    | Quebec                                      | Mexico OEL (TWA)   | Ontario TWAEV   |
| Ethylacetate | TWA: 400 ppm<br>TWA: 1440 mg/m <sup>3</sup> | TWA: 400 ppm<br>TWA: 1400 mg/m <sup>3</sup>  | TWA: 400 ppm  |

### Legend

NIOSH IDLH: *The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health*

### Personal Protective Equipment

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                  |                             |
|----------------------------------|-----------------------------|
| <b>Physical State</b>            | Liquid                      |
| <b>Appearance</b>                | Colorless                   |
| <b>Odor</b>                      | sweet                       |
| <b>Odor Threshold</b>            | 50 ppm                      |
| <b>pH</b>                        | Not applicable              |
| <b>Vapor Pressure</b>            | 103 mbar @ 20°C             |
| <b>Vapor Density</b>             | 3.04                        |
| <b>Viscosity</b>                 | 0.45 cP @ 20 °C             |
| <b>Boiling Point/Range</b>       | 75 - 78 °C / 167 - 171.5 °F |
| <b>Melting Point/Range</b>       | -83.5 °C / -118.3 °F        |
| <b>Decomposition Temperature</b> | No information available    |
| <b>Flash Point</b>               | -4 °C / 24.8 °F             |
| <b>Method -</b>                  | Closed cup                  |
| <b>Evaporation Rate</b>          | 6.2                         |
| <b>Specific Gravity</b>          | 0.902                       |
| <b>Solubility</b>                | Slightly soluble in water   |
| <b>log Pow</b>                   | No data available           |
| <b>Molecular Weight</b>          | 88.11                       |
| <b>Molecular Formula</b>         | C4 H8 O2                    |

## 10. STABILITY AND REACTIVITY

**Stability** Stable under normal conditions.

|   |  |
|---|--|
| <b>Conditions to Avoid</b>              | Incompatible products. Keep away from open flames, hot surfaces and sources of ignition. |
| <b>Incompatible Materials</b>           | Strong oxidizing agents, Strong acids, Amines, Peroxides                                 |
| <b>Hazardous Decomposition Products</b> | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> )                                  |
| <b>Hazardous Polymerization</b>         | Hazardous polymerization does not occur.   |
| <b>Hazardous Reactions</b>              | None under normal processing.  |

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Product Information

#### Component Information

| Component    | LD50 Oral          | LD50 Dermal            | LC50 Inhalation    |
|--------------|--------------------|------------------------|--------------------|
| Ethylacetate | 5620 mg/kg ( Rat ) | 18000 mg/kg ( Rabbit ) | 58 mg/l (rat; 8 h) |

|   |  |
|---|--|
| <b>Irritation</b>                           | Irritating to eyes   |
| <b>Toxicologically Synergistic Products</b> | No information available                                       |
| <b>Chronic Toxicity</b>                     |  |
| <b>Carcinogenicity</b>                      | There are no known carcinogenic chemicals in this product.     |
| <b>Sensitization</b>                        | No information available                                       |
| <b>Mutagenic Effects</b>                    | No information available                                       |
| <b>Reproductive Effects</b>                 | No information available.                                      |
| <b>Developmental Effects</b>                | No information available.                                      |
| <b>Teratogenicity</b>                       | No information available.                                      |
| <b>Other Adverse Effects</b>                | The toxicological properties have not been fully investigated. |
| <b>Endocrine Disruptor Information</b>      | No information available                                       |

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Do not empty into drains.

| Component    | Freshwater Algae     | Freshwater Fish  | Microtox   | Water Flea          |
|--------------|----------------------|--|--|---------------------|
| Ethylacetate | EC50 = 3300 mg/L/48h | Fathead minnow: LC50: 230 mg/l/ 96h<br>Gold orfe: LC50: 270 mg/L/48h | EC50 = 1180 mg/L 5 min<br>EC50 = 1500 mg/L 15 min<br>EC50 = 5870 mg/L 15 min<br>EC50 = 7400 mg/L 2 h | EC50 = 717 mg/L/48h |

**Persistence and Degradability** Readily biodegradable. .

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its volatility.

| Component    | log Pow |
|--------------|---------|
| Ethylacetate | 0.6     |

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

| Component               | RCRA - U Series Wastes | RCRA - P Series Wastes |
|-------------------------|------------------------|------------------------|
| Ethylacetate - 141-78-6 | U112                   | -                      |

### 14. TRANSPORT INFORMATION

#### DOT

UN-No UN1173  
 Proper Shipping Name ETHYL ACETATE  
 Hazard Class 3  
 Packing Group II

#### TDG

UN-No UN1173  
 Proper Shipping Name ETHYL ACETATE  
 Hazard Class 3  
 Packing Group II

#### IATA

UN-No UN1173  
 Proper Shipping Name ETHYL ACETATE  
 Hazard Class 3  
 Packing Group II

#### IMDG/IMO

UN-No UN1173  
 Proper Shipping Name ETHYL ACETATE  
 Hazard Class 3  
 Packing Group II

### 15. REGULATORY INFORMATION

#### International Inventories

| Component    | TSCA | DSL | NDSL | EINECS    | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|--------------|------|-----|------|-----------|--------|-----|-------|------|------|-------|------|
| Ethylacetate | X    | X   | -    | 205-500-4 | -      |     | X     | X    | X    | X     | X    |

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

**N** - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

**P** - Indicates a commenced PMN substance

**R** - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

**S** - Indicates a substance that is identified in a proposed or final Significant New Use Rule

**T** - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

**XU** - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

**Y1** - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

**Y2** - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

### U.S. Federal Regulations

**TSCA 12(b)** Not applicable

#### **SARA 313**

Not applicable

#### **SARA 311/312 Hazardous Categorization**

|                                   |     |
|-----------------------------------|-----|
| Acute Health Hazard               | Yes |
| Chronic Health Hazard             | Yes |
| Fire Hazard                       | Yes |
| Sudden Release of Pressure Hazard | No  |
| Reactive Hazard                   | No  |

#### **Clean Water Act**

Not applicable

#### **Clean Air Act**

Not applicable

#### **OSHA Occupational Safety and Health Administration**

Not applicable

#### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Component    | Hazardous Substances RQs | CERCLA EHS RQs |
|--------------|--------------------------|----------------|
| Ethylacetate | 5000 lb                  | -              |

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals

#### **State Right-to-Know**

| Component    | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|--------------|---------------|------------|--------------|----------|--------------|
| Ethylacetate | X             | X          | X            | -        | X            |

#### **U.S. Department of Transportation**

Reportable Quantity (RQ): Y

DOT Marine Pollutant N  
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** Serious risk, Grade 3

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

**WHMIS Hazard Class**

B2 Flammable liquid

D2B Toxic materials

**16. OTHER INFORMATION**

**Prepared By** Regulatory Affairs  
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**Revision Summary**

Update to Format (M)SDS sections updated 4 8 11 12 13 16

**Disclaimer**

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

**End of MSDS**