



J.T. Baker Inc.
222 Red School Lane
Phillipsburg, NJ 08865

24-Hour Emergency Telephone 908-859-2151
National Response Center 800-424-8802
Chemtrec 800-424-9300

MATERIAL SAFETY DATA SHEET

FICHE
SIGNALÉTIQUE

National Response In Canada
CANUTEC 613-996-6666

HOJAS DE DATOS
DE SEGURIDAD

Outside U.S. and Canada
Chemtrec 202-483-7616

E2875 -02
Effective: 05/01/89

Ethyl Acetoacetate

Page: 1
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J.T. BAKER INC., 222 Red School Lane, Phillipsburg, NJ 08865

SECTION I - PRODUCT IDENTIFICATION

Product Name: Ethyl Acetoacetate
Common Synonyms: Acetoacetic acid, Ethyl Ester; Diacetic Ether; Ethyl Acetyl Acetate; Ethyl 3-Oxobutanoate
Chemical Family: Esters
Formula: $CH_3COCH_2COOC_2H_5$
Formula Wt.: 130.15
CAS No.: 141-97-9
NIOSH/RTECS No.: AK5250000
Product Use: Laboratory Reagent
Product Codes: L332

PRECAUTIONARY LABELING

OCER SAF-T-DATA* System

HEALTH	FLAMMABILITY	REACTIVITY	CONTACT
1	2	1	1
SLIGHT	MODERATE	SLIGHT	SLIGHT

Laboratory Protective Equipment



GOGGLES



LAB COAT



VENT HOOD



PROPER GLOVES

U.S. Precautionary Labeling

CAUTION!

COMBUSTIBLE.

Keep away from heat, sparks, flame. Do not get in eyes, on skin, on clothing. Keep in tightly closed container. Wash thoroughly after handling. In case of fire, use water spray, alcohol foam, dry chemical, or carbon dioxide. Flush spill area with water spray.

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PRECAUTIONARY LABELING (CONTINUED)

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International Labeling

Avoid contact with eyes. After contact with skin, wash immediately with plenty of water. Keep container tightly closed.

SAF-T-DATA* Storage Color Code: Red (flammable)

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SECTION II - COMPONENTS

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<u>Component</u>	<u>CAS No.</u>	<u>Weight %</u>	<u>OSHA/PEL</u>	<u>ACGIH/TLV</u>
Ethyl Acetoacetate	141-97-9	90-100	N/E	N/E

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SECTION III - PHYSICAL DATA

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Boiling Point: 180°C (356°F)
(at 760 mm Hg)

Vapor Pressure (mmHg): 0.8
(20°C)

Melting Point: -43°C (-45°F)
(at 760 mm Hg)

Vapor Density (air=1): 4.48

Specific Gravity: 1.02
(H₂O=1)

Evaporation Rate: 0.1
(Butyl Acetate = 1)

Solubility(H₂O): Moderate (1-10%)

% Volatiles by Volume: 100
(21°C)

pH: N/A

Odor Threshold (ppm): N/A

Physical State: Liquid

Coefficient Water/Oil Distribution: N/A

Appearance & Odor: Colorless liquid. Fruity odor.



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SECTION IV - FIRE AND EXPLOSION HAZARD DATA
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Flash Point (Closed Cup): 84°C (185°F) NFPA 704M Rating: 2-2-0

Autoignition Temperature: 294°C (563°F)

Flammable Limits: Upper - 15.2 % Lower - 2.0 %

Fire Extinguishing Media

Use water spray, alcohol foam, dry chemical or carbon dioxide.

Special Fire-Fighting Procedures

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Move exposed containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool.

Unusual Fire & Explosion Hazards

None identified.

Toxic Gases Produced

carbon monoxide, carbon dioxide

Explosion Data-Sensitivity to Mechanical Impact

None identified.

Explosion Data-Sensitivity to Static Discharge

None identified.

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SECTION V - HEALTH HAZARD DATA
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Threshold Limit Value (TLV/TWA): Not Established

Short-Term Exposure Limit (STEL): Not Established

Permissible Exposure Limit (PEL): Not Established

Toxicity of components

Oral Rat LD₅₀ for Ethyl Acetoacetate 3980 mg/kg

Oral Mouse LD₅₀ for Ethyl Acetoacetate 5105 mg/kg

Carcinogenicity: NTP: No IARC: No Z List: No OSHA Reg: No



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 SECTION V - HEALTH HAZARD DATA (CONTINUED)
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Carcinogenicity

None identified.

Reproductive Effects

None identified.

Effects of Overexposure

INHALATION: may cause narcosis

SKIN CONTACT: irritation

EYE CONTACT: irritation

SKIN ABSORPTION: none identified

INGESTION: none identified

CHRONIC EFFECTS: none identified

Target Organs

none identified

Medical Conditions Generally Aggravated by Exposure

none identified

Primary Routes of Entry

none indicated

Emergency and First Aid Procedures

INGESTION: CALL A PHYSICIAN.

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

SKIN CONTACT: In case of contact, flush skin with water.

EYE CONTACT: In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

SARA/TITLE III HAZARD CATEGORIES and LISTS

Acute: No Chronic: No Flammability: Yes Pressure: No Reactivity: No

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SECTION V - HEALTH HAZARD DATA (CONTINUED)

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Extremely Hazardous Substance: No
 CERCLA Hazardous Substance: No
 SARA 313 Toxic Chemicals: No
 TSCA Inventory: Yes

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SECTION VI - REACTIVITY DATA

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Stability: Stable Hazardous Polymerization: Will not occur

Conditions to Avoid: heat, flame, other sources of ignition

Incompatibles: strong oxidizing agents, alkali metals

Decomposition Products: carbon monoxide, carbon dioxide

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SECTION VII - SPILL & DISPOSAL PROCEDURES

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Steps to be Taken in the Event of a Spill or Discharge

Wear suitable protective clothing. Shut off ignition sources; no flares, smoking, or flames in area. Stop leak if you can do so without risk. Use water spray to reduce vapors. Take up with sand or other non-combustible absorbent material and place into container for later disposal. Flush area with water.

J. T. Baker SOLUSORB^R solvent adsorbent is recommended for spills of this product.

Disposal Procedure

Dispose in accordance with all applicable federal, state, and local environmental regulations.

EPA Hazardous Waste Number: D001 (Ignitable Waste)

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SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT

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Ventilation: Use adequate general or local exhaust ventilation to keep vapor and mist levels as low as possible.



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SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT (CONTINUED)
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Respiratory Protection: None required where adequate ventilation conditions exist. If airborne concentration is high, a chemical cartridge respirator with organic vapor cartridge is recommended. If concentration exceeds capacity of cartridge respirator, a self-contained breathing apparatus is advised.

Eye/Skin Protection: Safety goggles, uniform, apron, rubber gloves are recommended.

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SECTION IX - STORAGE AND HANDLING PRECAUTIONS
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SAF-T-DATA* Storage Color Code: Red (flammable)

Storage Requirements

Keep container tightly closed. Store in a cool, dry, well-ventilated, flammable liquid storage area or cabinet.

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SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION
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Domestic (D.O.T.)

Proper Shipping Name: Combustible liquid, n.o.s. (Ethyl Acetoacetate)
Hazard Class: Combustible liquid
UN/NA: NA1993
Labels: NO LABEL REQUIRED UNDER 110 GALLONS
Regulatory References: 49CFR 172.101; 173.118a

International (I.M.O.)

Proper Shipping Name: Chemicals, n.o.s. (Non-regulated)
Marine Pollutants: No

AIR (I.C.A.O.)

Proper Shipping Name: Chemicals, n.o.s. (Non-regulated)

S. Customs Harmonization Number: 29189060005



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 N/A = Not Applicable or Not Available
 N/E = Not Established

The information in this Material Safety Data Sheet meets the requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and the Canadian WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. This document is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes.

Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, Baker cannot warn of all of the potential dangers of use or interaction with other chemicals or materials. Baker warrants that the chemical meets the specifications set forth on the label.

BAKER DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.

The user should recognize that this product can cause severe injury and even death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Baker will periodically revise this Material Safety Data Sheet.

Note: CHEMTREC, CANUTEC, and NATIONAL RESPONSE CENTER emergency telephone numbers are to be used ONLY in the event of CHEMICAL EMERGENCIAS involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to Customer Service (1-800-JTBAKER) for assistance.

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Approved by Quality Assurance Department.