



Material Safety Data Sheet

Ethyl acetoacetate

MSDS# 08760

Section 1 - Chemical Product and Company Identification

MSDS Name: Ethyl acetoacetate

Catalog Numbers: AC117970000, AC117970010, AC117970025, AC117970050, AC117970200, AC117970250
 AC117970250, AC220400000, AC220401000, E146-500

Synonyms: 3-Oxobutanoic acid, ethyl ester; Ethyl 3-ketobutyrate; Ethyl 3-oxobutanoate; Ethyl acetylacetate; Ethyl acetonecarboxylate; EAA; Acetoacetic acid, ethyl ester; 1-Ethoxybutane-1,3-dione; Ethyl 3-oxobutyrate.

Company Identification: Fisher Scientific
 One Reagent Lane
 Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

Risk Phrases:

CAS#: 141-97-9

Chemical Name: Ethyl acetoacetate

%: >99

EINECS#: 205-516-1

Hazard Symbols:

Risk Phrases:

CAS#: 7732-18-5

Chemical Name: Water

%: <0.1

EINECS#: 231-791-2

Hazard Symbols:

Text for R-phrases: see Section 16

Hazard Symbols: XI



Risk Phrases: 36/37/38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Combustible liquid and vapor. Causes eye, skin, and respiratory tract irritation. Target Organs: Respiratory system, eyes, skin.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation.

Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea.
 Inhalation: Causes respiratory tract irritation. Inhalation of vapors may cause drowsiness and dizziness.
 Chronic: Prolonged or repeated skin contact may cause dermatitis.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.
 Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.
 Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.
 Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
 Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Combustible liquid and vapor. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.
 Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.
 Autoignition Temperature: 280 deg C (536.00 deg F)
 Flash Point: 70 deg C (158.00 deg F)
 Explosion Limits: Lower: 1.4 @ 93.3°C
 Explosion Limits: Upper: 9.5 @ 176.7°C
 NFPA Rating: health: 2; flammability: 2; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
 Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Keep away from heat and flame. Avoid breathing vapor or mist.
 Storage: Keep away from sources of ignition. Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Ethyl acetoacetate	none listed	none listed	none listed
Water	none listed	none listed	none listed

OSHA Vacated PELs: Ethyl acetoacetate: None listed Water: None listed

Engineering Controls:

Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a

Respirators: NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: clear, colorless

Odor: pleasant odor, mild odor, fruity odor

pH: Not available

Vapor Pressure: 0.8 mm Hg @ 20 deg C

Vapor Density: 4.5 (air=1)

Evaporation Rate: 0.1 (BuAc=1)

Viscosity: 1.7 cps @ 20 deg C

Boiling Point: 180.8 deg C @ 760 mmHg (357.44°F)

Freezing/Melting Point: -45 deg C (-49.00°F)

Decomposition Temperature: Not available

Solubility in water: Slightly soluble

Specific Gravity/Density: 1.026 - 1.031

Molecular Formula: C6H10O3

Molecular Weight: 130.14

Section 10 - Stability and Reactivity

Chemical Stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
Conditions to Avoid:	Ignition sources, excess heat.
Incompatibilities with Other Materials	Oxidizing agents, reducing agents, acids, bases.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide.
Hazardous Polymerization	Has not been reported.

Section 11 - Toxicological Information

RTECS#:	CAS# 141-97-9: AK5250000 CAS# 7732-18-5: ZC0110000
	RTECS: CAS# 141-97-9: Draize test, rabbit, eye: 100 mg Severe; Draize test, rabbit, eye: 100 mg/24H Moderate; Oral, mouse: LD50 = 5105 mg/kg;
LD50/LC50:	Oral, rat: LD50 = 3980 mg/kg;
	. RTECS: CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg;
	.
Carcinogenicity:	Ethyl acetoacetate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65. Water - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:	See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not Regulated

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI

Risk Phrases:

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 9 Keep container in a well-ventilated place.

S 16 Keep away from sources of ignition - No smoking.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 33 Take precautionary measures against static discharges.

S 37/39 Wear suitable gloves and eye/face protection.

S 50A Do not mix with acids.

WGK (Water Danger/Protection)

CAS# 141-97-9: 1

CAS# 7732-18-5: Not available

Canada

CAS# 141-97-9 is listed on Canada's DSL List

CAS# 7732-18-5 is listed on Canada's DSL List

Canadian WHMIS Classifications: B3, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 141-97-9 is not listed on Canada's Ingredient Disclosure List.

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 141-97-9 is listed on the TSCA Inventory.

CAS# 7732-18-5 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 11/06/1998

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

REVIEWED

DATE: June 6/2012

Chuterford