

MATERIAL SAFETY DATA SHEET

Chemical Product

Product Name: ETHYL ACETOACETATE
CAS#: 141-97-9
Synonym: 3-Oxobutanoic acid ethyl ester
Chemical Name: Ethyl Acetoacetate
Chemical Formula: C₆H₁₀O₃

Composition and Information on Ingredients

Name	S.K.U	% by Weight
ETHYL ACETOACETATE	GCS-8364	100

Hazards Identification

Potential Acute Health Effects:

Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.

Potential Chronic Health Effects:

Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.

First Aid Measures

Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Skin Contact:

No known effect on skin contact, rinse with water for a few minutes.

Serious Skin Contact: Not available.

Inhalation:

Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation: Not available.

Ingestion:

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

Fire and Explosion Data

Flammability of the Product: Combustible.

Auto-Ignition Temperature: 295°C (563°F)

Flash Points: CLOSED CUP: 57°C (134.6°F). OPEN CUP: 84.4°C (183.9°F).

Flammable Limits: LOWER: 1.4% UPPER: 9.5%

Products of Combustion: These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances: Not Available.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not Available.

Special Remarks on Explosion Hazards: Not Available.

Accidental Release Measures

Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill:

Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk.

Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapour/spray. Wear suitable protective clothing In case of insufficient ventilation, wear suitable respiratory equipment if ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

Storage:

Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place.

Ground all equipment containing material. Keep container dry. Keep in a cool place

Exposure Controls/Personal Protection**Engineering Controls:**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Physical and Chemical Properties

Physical state and appearance: Liquid.

Odor : Fruity.

Taste : Not available.

Molecular Weight : 130.16 g/mole

Color : Colorless

pH (1% soln/water) : Not available.

Boiling Point : 180.8°C (357.4°F)

Melting Point : 4.27°C (39.7°F)

Critical Temperature : Not available.

Specific Gravity : 1.03 (Water = 1)

Vapor Pressure : 0.8 mm of Hg (@ 20°C)

Vapor Density : 4.48 (Air = 1)

Volatility : Not available.

Odor Threshold : Not available.

Water/Oil Dist. Coeff. : The product is more soluble in oil; log (oil/water) = 1.2

Ionicity (in Water) : Not available.

Dispersion Properties : See solubility in water.

Solubility : Partially soluble in cold water

Stability and Reactivity Data

Stability:	The product is stable.
Instability Temperature:	Not available.
Conditions of Instability:	Not available.
Incompatibility with various substances:	Not available.
Corrosivity:	Non-corrosive in presence of glass.
Special Remarks on Reactivity:	Not available.
Special Remarks on Corrosivity:	Not available.
Polymerization:	No.

Toxicological Information

Routes of Entry: Ingestion.

Toxicity to Animals: LD50: Not available. LC50: Not available.

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans:

Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

Toxicological Data on Ingredients: Ethyl acetoacetate: ORAL (LD50): Acute: 3980 mg/kg [Rat]. 5105 mg/kg [Mouse].

Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available.

Disposal Considerations

Waste Disposal:

Transformation Information

Land transport (ADR-RID)
General information: Not regulated.

Sea transport (IMDG) [English only]
General information: Not regulated.

Air transport (ICAO-IATA) [English only]
General information: Not regulated.

Other Regulatory Information

Federal and State Regulations:
Pennsylvania RTK: Ethyl acetoacetate Massachusetts RTK: Ethyl acetoacetate TSCA 8(b)
inventory: Ethyl acetoacetate

Other Regulations:
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:
WHMIS (Canada): CLASS B-3: Combustible liquid with a flash point between 37.8°C
(100°F) and 93.3°C (200°F).

DSCL (EEC): R36/38- Irritating to eyes and skin.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.



Additional Information

References: Not available.

Other Special Considerations: Not available.

Disclaimer:

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