

**SECTION 1: Identification****1.1. Identification**

Product form	: Substance
Substance name	: Propanoic acid, 3-(methylthio)-, methyl ester
CAS-No.	: 13532-18-8
Product code	: (US) W1833
Formula	: C5H10O2S
Synonyms	: Methyl 3-(methylthio)propionate / Thiopropionate, 3-methyl-, methyl / Methyl 3-methylthiopropionate

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Synerzine
5340 Hwy 42 S
Ellenwood, Georgia 30294 - USA
T 404-524-6744 - F 404-577-1651
info@synerzine.com - www.synerzine.com

1.4. Emergency telephone number

Emergency number : Infotrac 1-800-535-5053 (Contract# 102471) Dial +1-352-323-3500 when outside the US

SECTION 2: Hazard(s) identification**2.1. Classification of the substance or mixture****GHS-US classification**

Flammable liquids Category 4	H227	Combustible liquid
Hazardous to the aquatic environment - Acute Hazard Category 2	H401	Toxic to aquatic life
Hazardous to the aquatic environment - Chronic Hazard Category 2	H411	Toxic to aquatic life with long lasting effects

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements**GHS-US labeling**

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

H227 - Combustible liquid
H401 - Toxic to aquatic life
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking, heat, hot surfaces, open flames, sparks
P273 - Avoid release to the environment.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), dry sand to extinguish.
P391 - Collect spillage.
P403+P235 - Store in a well-ventilated place. Keep cool.
P501 - Dispose of contents/container to an approved waste disposal plant

2.3. Other hazards which do not result in classification

No additional information available

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2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	%	GHS-US classification
Propanoic acid, 3-(methylthio)-, methyl ester (Main constituent)	(CAS-No.) 13532-18-8	100	Flam. Liq. 4, H227 Aquatic Acute 2, H401 Aquatic Chronic 2, H411

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Allow victim to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: Combustible liquid.
Explosion hazard	: May form flammable/explosive vapor-air mixture.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.
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6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

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6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable. Keep away from heat/sparks/open flame/hot surfaces. - No smoking.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources. Keep container closed when not in use. Keep in fireproof place.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

No additional information available

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Respiratory protection:

Wear appropriate mask

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : Colorless

Odor : fruity sweet pineapple aroma

Odor threshold : No data available

pH : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : 74 - 75 °C @ 13 mmHg

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Flash point	: 162 °F closed cup
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Combustible liquid.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 1.068 - 1.078 g/ml
Molecular mass	: 134.19 g/mol
Solubility	: insoluble in water. Soluble in organic solvents.
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Combustible liquid. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

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Persistence and degradability	May cause long-term adverse effects in the environment.
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12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to manufacturer's suggestion for disposal.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN3334 Aviation regulated liquid, n.o.s., 9
UN-No.(DOT) : UN3334
Proper Shipping Name (DOT) : Aviation regulated liquid, n.o.s.
Class (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



Dangerous for the environment : Yes

Marine pollutant : Yes



DOT Packaging Non Bulk (49 CFR 173.xxx) : 204
DOT Symbols : A - Material is regulated as a hazardous material only when transported by air, G - Identifies PSN requiring a technical name
DOT Special Provisions (49 CFR 172.102) : A35 - This includes any material which is not covered by any of the other classes but which has an anesthetic, narcotic, noxious or other similar properties such that, in the event of spillage or leakage on an aircraft, extreme annoyance or discomfort could be caused to crew members so as to prevent the correct performance of assigned duties.
DOT Packaging Exceptions (49 CFR 173.xxx) : 155
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 450 L

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DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 450 L
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Other information	: No supplementary information available.

Transportation of Dangerous Goods

Transport by sea

Transport document description (IMDG)	: UN 3334 AVIATION REGULATED LIQUID, N.O.S., 9, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
UN-No. (IMDG)	: 3334
Proper Shipping Name (IMDG)	: AVIATION REGULATED LIQUID, N.O.S.
Class (IMDG)	: 9 - Miscellaneous dangerous substances and articles
Marine pollutant	: Yes



Air transport

Transport document description (IATA)	: UN 3334 Aviation regulated liquid, n.o.s., 9, ENVIRONMENTALLY HAZARDOUS
UN-No. (IATA)	: 3334
Proper Shipping Name (IATA)	: Aviation regulated liquid, n.o.s.
Class (IATA)	: 9 - Miscellaneous Dangerous Goods

SECTION 15: Regulatory information

15.1. US Federal regulations

Propanoic acid, 3-(methylthio)-, methyl ester (13532-18-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Propanoic acid, 3-(methylthio)-, methyl ester (13532-18-8)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Propanoic acid, 3-(methylthio)-, methyl ester (13532-18-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Propanoic acid, 3-(methylthio)-, methyl ester (13532-18-8)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3. US State regulations

No additional information available

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SECTION 16: Other information

Other information : None.

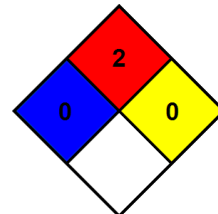
Full text of H-phrases:

H227	Combustible liquid
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

NFPA health hazard : 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard : 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 0 Minimal Hazard - No significant risk to health

Flammability : 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : B
B - Safety glasses, Gloves

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product