

**Safety Data Sheet**  
 acc. to OSHA HCS

Printing date 08/29/2018

Reviewed on 08/29/2018

**1 Identification**

- **Product identifier**
- **Trade name: Methyl 3-(methylthio)propionate synthetic**
- **Product number:** 4036
- **CAS Number:**  
13532-18-8
- **EC number:**  
236-883-6
- **Application of the substance / the mixture** Food flavorings
- **Details of the supplier of the safety data sheet**  
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- **Manufacturer/Supplier:**  
Advanced Biotech  
10 Taft Road  
Totowa, NJ 07512 USA
- **Information department:**  
Product Safety Department  
productsafety@adv-bio.com
- **Emergency telephone number:**  
1(800)535-5053 (Info Trac)  
1(352)323-3500 (International)  
During normal business hours: 1(973)339-6242

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



GHS06 Skull and crossbones

Acute Tox. 3 H311 Toxic in contact with skin.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

Flam. Liq. 4 H227 Combustible liquid.

- **Label elements** Harmful in contact with skin or if inhaled.

(Continued on page 2)

## Safety Data Sheet acc. to OSHA HCS

Printing date 08/29/2018

Reviewed on 08/29/2018

**Trade name: Methyl 3-(methylthio)propionate synthetic**

(Continuation of page 1)

· **GHS label elements**

Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible.  
 The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS06

· **Signal word** Danger

· **Hazard-determining components of labeling:**

Methyl 3-methylthiopropionate

· **Hazard statements**

H227 Combustible liquid.  
 H311 Toxic in contact with skin.  
 H332 Harmful if inhaled.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 P261 Avoid breathing dust/fume/gas/mist/vapors/spray  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2  
 Fire = 2  
 Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



HEALTH 2 Health = 2  
 FIRE 2 Fire = 2  
 REACTIVITY 0 Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

US

(Continued on page 3)

## Safety Data Sheet acc. to OSHA HCS

Printing date 08/29/2018

Reviewed on 08/29/2018

**Trade name: Methyl 3-(methylthio)propionate synthetic**

(Continuation of page 2)

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**  
 13532-18-8 Methyl 3-methylthiopropionate
- **Identification number(s)**
- **EC number: 236-883-6**

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
 Immediately remove any clothing soiled by the product.  
 Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.  
 In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**  
 Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
 In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**  
 No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
 No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
 CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.
- **Additional information**  
 Cool endangered receptacles with water spray.  
 Collect contaminated fire fighting water separately. It must not enter the sewage system.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
 Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

(Continued on page 4)

**Safety Data Sheet**  
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Reviewed on 08/29/2018

**Trade name: Methyl 3-(methylthio)propionate synthetic**

(Continuation of page 3)

- **Methods and material for containment and cleaning up:**  
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
 Dispose contaminated material as waste according to item 13.  
 Ensure adequate ventilation.
- **Reference to other sections**  
 See Section 7 for information on safe handling.  
 See Section 8 for information on personal protection equipment.  
 See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

Substance is not listed.

· **PAC-2:**

Substance is not listed.

· **PAC-3:**

Substance is not listed.

**7 Handling and storage**

- **Handling:**
- **Precautions for safe handling**  
 Ensure good ventilation/exhaustion at the workplace.  
 Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
 Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as a basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.

(Continued on page 5)

## Safety Data Sheet acc. to OSHA HCS

Printing date 08/29/2018

Reviewed on 08/29/2018

**Trade name: Methyl 3-(methylthio)propionate synthetic**

(Continuation of page 4)

Store protective clothing separately.  
 Avoid contact with the eyes and skin.

• **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

• **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material should be based on consideration of the penetration times, rates of diffusion and the degradation

• **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

• **Penetration time of glove material**

The exact break through time has to be determined by the manufacturer of the protective gloves and has to be observed.

• **Eye protection:** Goggles recommended during refilling.

### 9 Physical and chemical properties

• **Information on basic physical and chemical properties**

• **General Information**

• **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	According to product specification
<b>Odor:</b>	According to product specification
<b>Odor threshold:</b>	Not determined.

• **pH-value:** Not determined.

• **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	184-189 °C (363.2-372.2 °F)

• **Flash point:** 72 °C (161.6 °F)

• **Flammability (solid, gaseous):** Not applicable.

• **Decomposition temperature:** Not determined.

• **Auto igniting:** Not determined.

• **Danger of explosion:** Not determined.

(Continued on page 6)

## Safety Data Sheet acc. to OSHA HCS

Printing date 08/29/2018

Reviewed on 08/29/2018

**Trade name: Methyl 3-(methylthio)propionate synthetic**

(Continuation of page 5)

- **Explosion limits:**
  - Lower: Not determined.
  - Upper: Not determined.
- **Vapor pressure:** Not determined.
- **Density at 20 °C (68 °F):** 1.075 g/cm<sup>3</sup> (8.97088 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic: Not determined.
  - Kinematic: Not determined.
  - VOC content: 0.00 %  
0.0 g/l / 0.00 lb/gal
- **Other information:** No further relevant information available.

### 10 Stability and reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

**ATE (Acute Toxicity Estimate)**

Dermal	LD50	300 mg/kg
Inhalative	LC50/4 h	11 mg/l

**CAS: 13532-18-8 Methyl 3-methylthiopropionate**

Dermal	LD50	300 mg/kg (ATE)
Inhalative	LC50/4 h	11 mg/l (ATE)

(Continued on page 7)

## Safety Data Sheet acc. to OSHA HCS

Printing date 08/29/2018

Reviewed on 08/29/2018

**Trade name: Methyl 3-(methylthio)propionate synthetic**

(Continuation of page 6)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
 Water hazard class 1 (Self-assessment): slightly hazardous for water  
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

US

(Continued on page 8)

**Safety Data Sheet**  
 acc. to OSHA HCS



Printing date 08/29/2018

Reviewed on 08/29/2018

Trade name: Methyl 3-(methylthio)propionate synthetic

(Continuation of page 7)

**14 Transport information**

<ul style="list-style-type: none"> <li>· UN-Number</li> <li>· DOT, ADR, IMDG, IATA</li> </ul>	UN3334
<ul style="list-style-type: none"> <li>· UN proper shipping name</li> <li>· DOT, IMDG, IATA</li> <li>· ADR</li> </ul>	Aviation regulated liquid, n.o.s. 3334 Aviation regulated liquid, n.o.s.
<ul style="list-style-type: none"> <li>· Transport hazard class(es)</li> <li>· DOT</li> </ul> 	3 Flammable liquids 9
<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	3 Flammable liquids 9
<ul style="list-style-type: none"> <li>· ADR, IMDG, IATA</li> </ul> 	9 Miscellaneous dangerous substances and articles 9
<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	9 Miscellaneous dangerous substances and articles 9
<ul style="list-style-type: none"> <li>· Packing group</li> <li>· DOT, ADR, IMDG, IATA</li> </ul>	III
<ul style="list-style-type: none"> <li>· Environmental hazards:</li> <li>· Marine pollutant:</li> </ul>	No
<ul style="list-style-type: none"> <li>· Special precautions for user</li> </ul>	Warning: Miscellaneous dangerous substances and articles
<ul style="list-style-type: none"> <li>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· Transport/Additional information:</li> <li>· DOT</li> <li>· Quantity limitations</li> </ul>	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L
<ul style="list-style-type: none"> <li>· ADR</li> <li>· Excepted quantities (EQ)</li> </ul>	NOT SUBJECT TO ADR
<ul style="list-style-type: none"> <li>· IMDG</li> <li>· Limited quantities (LQ)</li> </ul>	5L

(Continued on page 9)



**Safety Data Sheet**  
 acc. to OSHA HCS

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Reviewed on 08/29/2018

**Trade name: Methyl 3-(methylthio)propionate synthetic**

(Continuation of page 8)

· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 3334 AVIATION REGULATED LIQUID, N.O.S., 9, III

**15 Regulatory information**

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· **Section 355 (extremely hazardous substances):**

Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**

Substance is not listed.

· **TSCA (Toxic Substances Control Act):**

Substance is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity:**

Substance is not listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

· **GHS label elements**

Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible.

The substance is classified and labeled according to the Globally Harmonized System (GHS).

(Continued on page 10)

## Safety Data Sheet acc. to OSHA HCS

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**Trade name: Methyl 3-(methylthio)propionate synthetic**

(Continuation of page 9)

· **Hazard pictograms**



GHS06

· **Signal word** Danger

· **Hazard-determining components of labeling:**

Methyl 3-methylthiopropionate

· **Hazard statements**

H227 Combustible liquid.

H311 Toxic in contact with skin.

H332 Harmful if inhaled.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Product Safety Department

· **Contact:**

Product Safety Department  
 productsafety@adv-bio.com

· **Date of preparation / last revision** 08/29/2018 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

(Continued on page 11)



## Safety Data Sheet acc. to OSHA HCS

Printing date 08/29/2018

Reviewed on 08/29/2018

**Trade name: Methyl 3-(methylthio)propionate synthetic**

(Continuation of page 10)

OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Flam. Liq. 4: Flammable liquids – Category 4  
Acute Tox. 3: Acute toxicity – Category 3  
Acute Tox. 4: Acute toxicity – Category 4

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