

# Safety Data Sheet

acc. to OSHA HCS (29 CFR § 1910.1200)

Date of issue: 01/25/2025

Reviewed on 01/25/2025

## 1 Identification

· **Product identifier**

· **Trade name:** 2,3-Diethyl-5-Methyl Pyrazine synthetic

· **CAS Number:**

18138-04-0

· **Other means of identification**

· **Product number:** 4012

· **EC number:**

242-024-6

· **Application of the substance / the mixture** Flavoring Ingredients

· **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:**

Infotrac: 1-800-535-5053 (Domestic) & 1-352-323-3500 (International)

Email: responders@infotrac.net & During normal business hours: 1-973-339-6242

## 2 Hazard(s) identification

· **Classification of the substance or mixture**

Flammable liquids 4 H227 Combustible liquid.

· **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** Not Applicable

· **Signal word** Warning

· **Hazard statements**

H227 Combustible liquid.

· **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

P370+P378 In case of fire: Use CO2, powder or water spray to extinguish.

P403 Store in a well-ventilated place.

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

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- Information pertaining to particular dangers for man and environment:
- Classification system:
- NFPA ratings (scale 0 - 4)



Health = 0  
Fire = 2  
Reactivity = 0

- HMIS-ratings (scale 0 - 4)



Health = 0  
Fire = 2  
Reactivity = 0

- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- Classification according to (d)(1)(ii) of § 1910.1200  
The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.
- Hazards not otherwise classified  
There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

## 3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description  
CAS: 18138-04-0 2,3-diethyl-5-methylpyrazine
- Identification number(s)
- EC number: 242-024-6

## 4 First-aid measures

- Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult 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.

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.
- **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** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **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 section 13.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**  
Substance is not listed.

· **PAC-2:**  
Substance is not listed.

· **PAC-3:**  
Substance is not listed.

- **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.

## 7 Handling and storage

- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Please refer to the product specification and/or Certificate of Analysis for product storage requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **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**
- **Appropriate engineering controls** No further data; see section 7.
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.

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## 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                      | Molecular Weight: 150.23 g/mol                      |
| Physical state                           | Liquid                                              |
| Color:                                   | According to product specification                  |
| Odor:                                    | According to product specification                  |
| Odor threshold:                          | Not determined.                                     |
| Melting point/Melting range:             | Undetermined.                                       |
| Boiling point/Boiling range:             | Undetermined.                                       |
| Flammability:                            | Not applicable.                                     |
| Explosion limits:                        |                                                     |
| Lower:                                   | Not determined.                                     |
| Upper:                                   | Not determined.                                     |
| Flash point:                             | 78.1 °C (172.6 °F)                                  |
| Decomposition temperature:               | Not determined.                                     |
| pH-value:                                | Not determined.                                     |
| Viscosity:                               |                                                     |
| Kinematic:                               | Not determined.                                     |
| Dynamic:                                 | Not determined.                                     |
| Solubility in / Miscibility with         |                                                     |
| Water:                                   | Not miscible or difficult to mix.                   |
| Partition coefficient (n-octanol/water): | Not determined.                                     |
| Vapor pressure:                          | Not determined.                                     |
| Vapor pressure:                          |                                                     |
| Density at 20 °C (68 °F):                | 0.94-0.96 g/cm <sup>3</sup> (7.8443-8.0112 lbs/gal) |
| Relative density                         | Not determined.                                     |
| Specific Gravity                         | 0.94-0.96 @ 20 °C (33.7-33.7 @ 68 °F)               |
| Refractive Index                         |                                                     |
| Vapor density                            | Not determined.                                     |
| Particle characteristics                 | Not applicable.                                     |

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- Other information
- Appearance:
- Form: Liquid
- Important information on protection of health and environment, and on safety.
- Ignition temperature: Not determined.
- Danger of explosion: Not determined.
- VOC content: 0.00 %  
0.0 g/l / 0.00 lb/gal
- Change in condition
- Evaporation rate: Not determined.

## 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:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Interactive effects** No interactive effects between components are known.

### · 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.

#### · Alternative sources for toxicological information

No non-standard sources for toxicological information where used.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.

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- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects**
- **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.

## 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.

## 14 Transport information

- |                                                                                  |                                                      |
|----------------------------------------------------------------------------------|------------------------------------------------------|
| · <b>UN-Number</b>                                                               |                                                      |
| · <b>DOT, ADN, IMDG, IATA</b>                                                    | Not Regulated                                        |
| · <b>UN proper shipping name</b>                                                 |                                                      |
| · <b>DOT, ADN, IMDG, IATA</b>                                                    | Not Regulated                                        |
| · <b>Transport hazard class(es)</b>                                              |                                                      |
| · <b>DOT, ADN, IMDG, IATA</b>                                                    |                                                      |
| · <b>Class</b>                                                                   | Not Regulated                                        |
| · <b>Packing group</b>                                                           |                                                      |
| · <b>DOT, IMDG, IATA</b>                                                         | Not Regulated                                        |
| · <b>Environmental hazards:</b>                                                  |                                                      |
| · <b>Marine pollutant:</b>                                                       | No                                                   |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.                                      |
| · <b>Transport/Additional information:</b>                                       | Not dangerous according to the above specifications. |
| · <b>Special precautions for user</b>                                            | Not applicable.                                      |
| · <b>UN "Model Regulation":</b>                                                  | Not Regulated                                        |

— US —

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## 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):

ACTIVE

### · Hazardous Air Pollutants

Substance is not 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)

Substance is not listed.

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

Substance is not listed.

### · GHS label elements

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

### · Hazard pictograms Not Applicable

### · Signal word Warning

### · Hazard statements

H227 Combustible liquid.

### · Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

P370+P378 In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.

P403 Store in a well-ventilated place.

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

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· **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 previous version** 01/10/2023

· **Date of preparation** 01/25/2025

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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

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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flammable liquids 4: Flammable liquids – Category 4

US