1 Identification

- **Product identifier**
  - **Trade name:** Bis (2-Methyl-3-Furyl) Disulfide 10% OS natural
  - **Product number:** 1572
  - **CAS Number:** 28588-75-2 / 65381-09-1
  - **EINECS Number:** 249-095-2
  - **Application of the substance / the mixture** Flavorsing Ingredients

- **Details of the supplier of the safety data sheet**
  
  **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**

  ![GHS07](image)
  Acute Toxicity - Oral 4 H302 Harmful if swallowed.

- **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 product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**

  ![GHS07](image)

- **Signal word** Warning

- **Hazard-determining components of labeling:**
  Bis (2-Methyl-3-Furyl) Disulfide

- **Hazard statements**
  H302 Harmful if swallowed.

(Continued on page 2)
Trade name: Bis (2-Methyl-3-Furyl) Disulfide 10% OS natural

- Precautionary statements
  - P264 Wash thoroughly after handling.
  - P270 Do not eat, drink or smoke when using this product.
  - P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.
  - P330 Rinse mouth.
  - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
  - NFPA ratings (scale 0 - 4)
  - Health = 1
  - Fire = 1
  - Reactivity = 0

- HMIS-ratings (scale 0 - 4)
  - HEALTH 1
  - FIRE 1
  - REACTIVITY 0

- Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

3 Composition/information on ingredients
- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

4 First-aid measures
- Description of first aid measures
  - General information:
    - Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
  - 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: Immediately call a 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:
    - CO₂, powder or alcoholar resistant foam.
    - CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
    - Use fire fighting measures that suit the environment.
  - Special hazards arising from the substance or mixture No further relevant information available.
- 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: No special measures required.
- 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.
- 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: None of the ingredients is listed.
  - PAC-2: None of the ingredients is listed.
  - PAC-3: None of the ingredients is listed.

7 Handling and storage

- Handling:
  - 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:
    - No special requirements.
    - 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.
Trade name: Bis (2-Methyl-3-Furyl) Disulfide 10% OS natural

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:
  The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- 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.
    Wash hands before breaks and at the end of work.
  · Breathing equipment: Not required.
  · Protection of hands:
    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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
  · 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:
      Form: Liquid
      Color: According to product specification
      Odor: According to product specification
      Odor threshold: Not determined.
    · pH-value: Not determined.
  · Change in condition
    Melting point/Melting range: Undetermined.
    Boiling point/Boiling range: Undetermined.
  · Flash point: >110 °C (>230 °F)
  · Flammability (solid, gaseous): Not applicable.
  · Decomposition temperature: Not determined.
Trade name: Bis (2-Methyl-3-Furyl) Disulfide 10% OS natural

### 5. Physical and Chemical Properties

- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
  - Lower: Not determined.
  - Upper: Not determined.
- **Vapor pressure:** Not determined.
- **Density at 20 °C (68 °F):** 0.957-0.987 g/cm³ (7.98617-8.23652 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.
- **Solvent content:**
  - 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)**
      - Oral | LD50 | 1,060 mg/kg (rat)
    - **CAS: 28588-75-2 Bis (2-Methyl-3-Furyl) Disulfide**
      - Oral | LD50 | 106 mg/kg (rat)
  - **Primary irritant effect:**
    - **on the skin:** No irritant effect.
Trade name: Bis (2-Methyl-3-Furyl) Disulfide 10% OS natural

- on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information: Harmful
- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    None of the ingredients is listed.
  - NTP (National Toxicology Program)
    None of the ingredients is listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    None of the ingredients is 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: Not hazardous for water.
- 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.

14 Transport information
- UN-Number
  - DOT, ADN, IMDG, IATA: Not Regulated
- UN proper shipping name
  - DOT, ADN, IMDG, IATA: Not Regulated
- Transport hazard class(es)
  - DOT, ADN, IMDG, IATA: Not Regulated
## 15 Regulatory information

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

#### Sara

- **Section 355 (extremely hazardous substances):**
  - None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**
  - None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**
  - All components have the value ACTIVE.

### Hazardous Air Pollutants

- None of the ingredients is listed.

#### Proposition 65

- **Chemicals known to cause cancer:**
  - None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**
  - None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**
  - None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**
  - None of the ingredients is listed.

### Carcinogenic categories

- **EPA (Environmental Protection Agency)**
  - None of the ingredients is listed.

- **TLV (Threshold Limit Value)**
  - None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  - None of the ingredients is listed.

### GHS label elements

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

- **Hazard pictograms**
  
  ![](GHS07)

- **Signal word** Warning

- **Hazard-determining components of labeling:**
  Bis (2-Methyl-3-Furyl) Disulfide

- **Hazard statements**
  H302 Harmful if swallowed.

- **Precautionary statements**
  P264 Wash thoroughly after handling.
  P270 Do not eat, drink or smoke when using this product.
  P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.
  P330 Rinse mouth.
  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.

- **Relevant phrases**
  H301 Toxic if swallowed.

- **Department issuing SDS:** Product Safety Department

- **Contact:**
  Product Safety Department
  productsafety@adv-bio.com

- **Date of preparation / last revision** 01/11/2023

- **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
  ELINCS: European List of Notified 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
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit
  Acute Toxicity - Oral 3: Acute toxicity – Category 3
  Acute Toxicity - Oral 4: Acute toxicity – Category 4