1 Identification

- **Product identifier**

- **Trade name:** Organo (Limonene) Mounting Medium
  - **Article number:** 17987-01, 17987-06, 17987-25
  - **Application of the substance / the mixture:** Laboratory chemicals

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    Electron Microscopy Sciences
    1560 Industry Road
    USA-Hatfield, PA 19440
    Tel: 215-412-8400 Fax: 215-412-8450
    email: info@emsdiasum.com
    www.emsdiasum.com

- **Information department:** Product safety department

- **Emergency telephone number:**
  - ChemTrec 1-800-424-9300 Contract CCN7661
  - 1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - GHS02 Flame
    Flammable Liquids 3  H226 Flammable liquid and vapor.

  - GHS08 Health hazard
    Aspiration Hazard 1  H304 May be fatal if swallowed and enters airways.

  - GHS07
    Skin Irritation 2  H315 Causes skin irritation.
    Sensitization - Skin 1  H317 May cause an allergic skin reaction.

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

- **Hazard pictograms**
  - GHS02  GHS07  GHS08

- **Signal word** Danger

(Contd. on page 2)
Trade name: Organo (Limonene) Mounting Medium

- **Hazard-determining components of labeling:**
  (R)-p-mentha-1,8-diene

- **Hazard statements**
  Flammable liquid and vapor.
  Causes skin irritation.
  May cause an allergic skin reaction.
  May be fatal if swallowed and enters airways.

- **Precautionary statements**
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  Keep container tightly closed.
  Ground/bond container and receiving equipment.
  Use explosion-proof electrical/ventilating/lighting/equipment.
  Use only non-sparking tools.
  Take precautionary measures against static discharge.
  Avoid breathing dust/fume/gas/mist/vapors/spray
  Wash thoroughly after handling.
  Contaminated work clothing must not be allowed out of the workplace.
  Wear protective gloves/protective clothing/eye protection/face protection.
  If swallowed: Immediately call a poison center/doctor.
  Specific treatment (see on this label).
  Do NOT induce vomiting.
  If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  Take off contaminated clothing and wash it before reuse.
  If skin irritation or rash occurs: Get medical advice/attention.
  Wash contaminated clothing before reuse.
  In case of fire: Use CO2, powder or water spray to extinguish.
  Store in a well-ventilated place. Keep cool.
  Store locked up.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
  - **NFPA ratings (scale 0 - 4)**
    - Health = 1
    - Fire = 2
    - Reactivity = 0
  - **HMIS-ratings (scale 0 - 4)**
    - Health = 1
    - Fire = 2
    - 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.
- **Dangerous components:**
  - 5989-27-5 (R)-p-mentha-1,8-diene >50-≤100%

### 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air and to be sure call for a doctor. 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.
- **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:** CO2, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
  - Inform respective authorities in case of seepage into water course or sewage system.
  - 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 item 13.
  - Ensure adequate ventilation.
  - Do not flush with water or aqueous cleansing agents
- **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.
Trade name: Organo (Limonene) Mounting Medium

- Protective Action Criteria for Chemicals

- PAC-1:
  5989-27-5 (R)-p-mentha-1,8-diene 15 ppm

- PAC-2:
  5989-27-5 (R)-p-mentha-1,8-diene 67 ppm

- PAC-3:
  5989-27-5 (R)-p-mentha-1,8-diene 170 ppm

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.
    Protect against electrostatic charges.
  - 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:
    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 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.
      Avoid contact with the skin.
      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.

The selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation is necessary.

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 found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Tightly sealed goggles

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form: Liquid
Color: Clear
Odor: Characteristic
Odor threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: -74 °C (-101.2 °F)
Boiling point/Boiling range: 175 °C (347 °F)

Flash point: 48 °C (118.4 °F)

Flammability (solid, gaseous): Flammable.

Ignition temperature: 255 °C (491 °F)

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
### 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**: Irritant to skin and mucous membranes.
  - **on the eye**: No irritating effect.
- **Sensitization**: Sensitization possible through skin contact.

#### Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations:
- **Irritant**
Trade name: Organo (Limonene) Mounting Medium

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    - 5989-27-5 (R)-p-mentha-1,8-diene
      - 3
  - 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.
  - Ecotoxicological effects:
  - Remark:
    - Very toxic for fish
    - Harmful to fish
- Additional ecological information:
- General notes:
  - Water hazard class 2 (Self-assessment): hazardous for water
  - Do not allow product to reach ground water, water course or sewage system.
  - Danger to drinking water if even small quantities leak into the ground.
  - Also poisonous for fish and plankton in water bodies.
  - Very toxic for aquatic organisms
  - Harmful to aquatic organisms
- 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

<table>
<thead>
<tr>
<th>DOT, ADR, IMDG, IATA</th>
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<td><strong>UN proper shipping name</strong></td>
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<td><strong>DOT</strong></td>
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<tr>
<td><strong>ADR</strong></td>
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<td><strong>IMDG</strong></td>
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<td><strong>IATA</strong></td>
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**Transport hazard class(es)**

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<td>DOT, ADR, IMDG, IATA</td>
<td>III</td>
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</table>

**Environmental hazards:**
Product contains environmentally hazardous substances:
(R)-p-mentha-1,8-diene

**Marine pollutant:**
Yes (DOT)
Symbol (fish and tree)

**Special marking (ADR):**
Symbol (fish and tree)

**Special precautions for user:**
Warning: Flammable liquids

**Hazard identification number (Ke上门 code):**
30

**EMS Number:**
F-E,S-E

**Stowage Category:**
A

(Contd. on page 9)
### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

### Transport/Additional information:

- **DOT**
  - **Quantity limitations**
    - On passenger aircraft/rail: 60 L
    - On cargo aircraft only: 220 L
  - **Remarks:**
    - Special marking with the symbol (fish and tree).

### ADR

- **Excepted quantities (EQ)**
  - Code: E1
  - Maximum net quantity per inner packaging: 30 ml
  - Maximum net quantity per outer packaging: 1000 ml

### IMDG

- **Limited quantities (LQ)**: 5L
- **Excepted quantities (EQ)**
  - Code: E1
  - Maximum net quantity per inner packaging: 30 ml
  - Maximum net quantity per outer packaging: 1000 ml

### UN "Model Regulation":

UN 2052 DIPENENE MIXTURE, 3, I11, ENVIRONMENTALLY HAZARDOUS

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - No further relevant information available.

#### 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):

- 5989-27-5 (R)-p-mentha-1,8-diene
  - **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.
Trade name: Organo (Limonene) Mounting Medium

- **Carcinogenic categories**
  None of the ingredients is listed.

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

- **Hazard pictograms**
  ![GHS pictograms](Image)
  GHS02  GHS07  GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  (R)-p-mentha-1,8-diene

- **Hazard statements**
  Flammable liquid and vapor.
  Causes skin irritation.
  May cause an allergic skin reaction.
  May be fatal if swallowed and enters airways.

- **Precautionary statements**
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  Keep container tightly closed.
  Ground/bond container and receiving equipment.
  Use explosion-proof electrical/ventilating/lighting/equipment.
  Use only non-sparking tools.
  Take precautionary measures against static discharge.
  Avoid breathing dust/fume/gas/mist/vapors/spray
  Wash thoroughly after handling.
  Contaminated work clothing must not be allowed out of the workplace.
  Wear protective gloves/protective clothing/eye protection/face protection.
  If swallowed: Immediately call a poison center/doctor.
  Specific treatment (see on this label).
  Do NOT induce vomiting.
  If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  Take off contaminated clothing and wash it before reuse.
  If skin irritation or rash occurs: Get medical advice/attention.
  Wash contaminated clothing before reuse.
  In case of fire: Use CO2, powder or water spray to extinguish.
  Store in a well-ventilated place. Keep cool.
  Store locked up.
  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.

- Contact:
- Date of preparation / last revision: 03/03/2023
- 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)
  - 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 3: Flammable liquids – Category 3
  - Skin Irritation 2: Skin corrosion/irritation – Category 2
  - Sensitization - Skin 1: Skin sensitisation – Category 1
  - Aspiration Hazard 1: Aspiration hazard – Category 1