1 Identification of the substance/mixture and of the company

- **Product identifier**
  - **Trade name:** 495 PMMA Series Resists in Anisole

- **Product number:**
  - M130001, M130002, M130003, M130004, M130504, M130005, M130505, M130006, M130007, M130507, M130008, M130508, M130009, M130010, M130011, M130015, M130515

- **Application of the substance / the preparation**

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** MicroChem Corp
  - Address: 90 Oak Street, PO Box 426, Newton, MA 02464-0002

- **Information department:**
  - **Product Safety**
  - Email: productsafety@microchem.com

- **Emergency telephone number:**
  - MicroChem Corp: 617-963-5511
  - Chemtrec USA Emergency: 800-424-9300
  - Chemtrec International Emergency: 703-527-3887

2 Composition/information on ingredients

- **Chemical characterization:** Mixtures
  - **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**
  - 100-66-3 | anisole | H226; H303 | 80-100%

- **Additional Components:**
  - 9011-14-7 | Poly(methylmethacrylate) | 1-20%

3 Hazards identification

- **Classification of the substance or mixture**
  - **GHS02 Flame**
  - H226 Flammable liquid and vapour.
  - H303 May be harmful if swallowed.

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

- **GHS02**

- **Signal word** Warning

- **Hazard statements**
  - H226 Flammable liquid and vapour.
  - H303 May be harmful if swallowed.

(Contd. on page 2)
Trade name: 495 PMMA Series Resists in Anisole

- Precautionary statements
  P101 If medical advice is needed, have product container or label at hand.
  P102 Keep out of reach of children.
  P103 Read label before use.
  P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  P241 Use explosion-proof electrical/ventilating/lighting/equipment.
  P280 Wear protective gloves/protective clothing/eye protection/face protection.
  P303 + P361 + P333 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
  P501 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 Health = 1
    FIRE 2 Fire = 2
    REACTIVITY 0 Reactivity = 0

4 First aid measures

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water.

5 Firefighting measures

- 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.
- Protective equipment: Wear SCBA.

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.
- Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  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.
7 Handling and storage

- Handling:
- Precautions for safe handling: Use only in well ventilated areas.
- Information about protection against explosions and fires:
  Keep ignition sources away - Do not smoke.
  Protect against electrostatic charges.
- Storage:
  Requirements to be met by storerooms and containers: No special requirements.
  Information about storage in one common storage facility: Not required.
  Further information about storage conditions:
  Keep container tightly sealed.
  Protect from exposure to the light.
  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.
- 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.
- Personal protective equipment:
  General protective and hygienic measures: Wash hands before breaks and at the end of work.
  Respiratory equipment: Use suitable respiratory protective device in case of insufficient ventilation.
- Protection of hands:

  ![Protective gloves]

  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  - Material of gloves: PVC gloves
  - Penetration time of glove material: Contact glove manufacturer for break-through time.

- Eye protection:

  ![Tightly sealed goggles]

9 Physical and chemical properties

- General Information
- Appearance:
  - Form: Fluid
  - Color: Clear
  - Odor: Light yellow

- Characteristic
Material Safety Data Sheet  
acc. to ISO/DIS 11014

Trade name: 495 PMMA Series Resists in Anisole

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour threshold</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH-value</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Change in condition</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td>184°C (363 °F)</td>
</tr>
<tr>
<td>Boiling point/Boiling range</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>43°C (109 °F)</td>
</tr>
<tr>
<td>Flammability (solid, gaseous)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>475°C (887 °F)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto igniting</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td>Danger of explosion</td>
<td>Product is not explosive. However, formation of explosive air/vapor mixtures are possible.</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Lower</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor pressure at 20°C (68 °F)</td>
<td>0.4 hPa</td>
</tr>
<tr>
<td>Density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water</td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td>Segregation coefficient (n-octanol/water)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Dynamic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Other information</td>
<td>Name</td>
</tr>
<tr>
<td>495A1</td>
<td>M130001</td>
</tr>
<tr>
<td>495A2</td>
<td>M130002</td>
</tr>
<tr>
<td>495A3</td>
<td>M130003</td>
</tr>
<tr>
<td>495A4</td>
<td>M130004</td>
</tr>
<tr>
<td>495A4.5</td>
<td>M130504</td>
</tr>
<tr>
<td>495A5</td>
<td>M130005</td>
</tr>
<tr>
<td>495A5.5</td>
<td>M130505</td>
</tr>
<tr>
<td>495A6</td>
<td>M130006</td>
</tr>
<tr>
<td>495A7</td>
<td>M130007</td>
</tr>
<tr>
<td>495A7.5</td>
<td>M130507</td>
</tr>
<tr>
<td>495A8</td>
<td>M130008</td>
</tr>
<tr>
<td>495A8.5</td>
<td>M130508</td>
</tr>
<tr>
<td>495A9</td>
<td>M130009</td>
</tr>
<tr>
<td>495A10</td>
<td>M130010</td>
</tr>
<tr>
<td>495A11</td>
<td>M130011</td>
</tr>
<tr>
<td>495A15</td>
<td>M130015</td>
</tr>
<tr>
<td>495A15.5</td>
<td>M130515</td>
</tr>
</tbody>
</table>

(Contd. on page 5)
10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Acute toxicity:
  - Primary irritant effect:
    - on the skin: No irritant effect.
    - on the eye: No irritating effect.
  - Sensitization: No sensitizing effects known.

12 Ecological information

- 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.
- 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.

13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    - Must not be disposed of as regular garbage/trash. Do not allow product to reach sewage system.

- Uncleaned packagings:
  - Recommendation: Disposal must be made in accordance with Federal, State, and Local regulations.

14 Transport information

- UN-Number
  - DOT, ADR, IMDG, IATA: UN1866

- UN proper shipping name
  - DOT, IMDG, IATA: RESIN SOLUTION, mixture
  - ADR: 1866 RESIN SOLUTION, mixture

(Contd. on page 6)
Trade name: 495 PMMA Series Resists in Anisole

- **Transport hazard class(es)**
  - DOT, IMDG, IATA

<table>
<thead>
<tr>
<th>Class</th>
<th>Label</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>Label</td>
<td>3 Flammable liquids</td>
</tr>
</tbody>
</table>

- **ADR**
  - **Class**
    - Label | 3 Flammable liquids |

<table>
<thead>
<tr>
<th>Packing group</th>
<th>DOT, ADR, IMDG, IATA</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>III</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Environmental hazards:**
  - Marine pollutant: No

- **Special precautions for user**
  - Warning: Flammable liquids
  - Danger code (Kemler): 30
  - EMS Number: F-E-S-D

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
  - Not applicable.

- **UN "Model Regulation":**
  - UN1866, RESIN SOLUTION, mixture, 3, III

### 15 Regulatory information

- **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 ingredients are listed or comply with TSCA regulations.

- **Proposition 65**
  - **Chemicals known to cause cancer:**
    - None of the ingredients are listed.
  - **Chemicals known to cause reproductive toxicity for females:**
    - None of the ingredients are listed.
  - **Chemicals known to cause reproductive toxicity for males:**
    - None of the ingredients are listed.
Trade name: 495 PMMA Series Resists in Anisole

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

- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    None of the ingredients is listed.
  - **IARC (International Agency for Research on Cancer)**
    9011-14-7 Poly(methylmethacrylate) 3
  - **NTP (National Toxicology Program)**
    None of the ingredients is listed.
  - **TLV (Threshold Limit Value established by ACGIH)**
    None of the ingredients is listed.
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    None of the ingredients is listed.
  - **OSHA-Ca (Occupational Safety & Health Administration)**
    None of the ingredients is listed.

- **GHS label elements**
  The product is classified and labelled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    ![GHS02](image)

- **Signal word** Warning
- **Hazard statements**
  H226 Flammable liquid and vapour.
  H303 May be harmful if swallowed.

- **Precautionary statements**
  - P101 If medical advice is needed, have product container or label at hand.
  - P102 Keep out of reach of children.
  - P103 Read label before use.
  - P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - P241 Use explosion-proof electrical/ventilating/lighting/equipment.
  - P280 Wear protective gloves/protective clothing/eye protection/face protection.
  - P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

---

**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 MSDS:** Product safety department
- **Contact:** Mr. Bedet

**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)
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
Trade name: 495 PMMA Series Resists in Anisole

IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)